Academic Catalog

2025–2026

HAROLD WASHINGTON • HARRY S TRUMAN • KENNEDY-KING • MALCOLM X • OLIVE-HARVEY • RICHARD J. DALEY • WILBUR WRIGHT

CITY COLLEGES®
OF CHICAGO

2025-2026 ACADEMIC CATALOG - FALL 2025

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OVERVIEW

Since 1911, City Colleges of Chicago has been connecting students from across Chicago's neighborhoods to economic opportunity. By offering a quality education at an unprecedented value, City Colleges provides our students and alumni with a pathway to upward mobility.

In fact, our vision is to be the city's most accessible higher education engine of socioeconomic mobility and racial equity—empowering all Chicagoans to take part in building a stronger and more just city.

City Colleges graduates can be found working across Chicago—from the city's biggest hospitals to its boardrooms, from its high-tech manufacturing plants to its classrooms. They can be found serving the community as government officials, law enforcement officers, and teachers, and they are found launching their own businesses and taking leadership roles in the city's fastest-growing sectors.

More than sixty-one thousand Chicagoans are enrolled in City Colleges' educational programs each year. Our offerings range from tuition-free English as a second language (ESL) and high school diploma (GED/HiSET) preparation classes to certificate and associate degree programs that prepare students to secure employment in high-demand careers and transfer to four-year colleges. In fact, about half of City Colleges graduates transfer after completion, with many heading to nationally-recognized colleges and universities.

Hailing from every neighborhood, City Colleges students are as diverse as the city itself. As Illinois' largest community college system, City Colleges is comprised of seven independently-accredited colleges: Harold Washington College, Harry S Truman College, Kennedy-King College, Malcolm X College, Olive-Harvey College, Richard J. Daley College, and Wilbur Wright College, and five satellite sites: Arturo Velasquez Institute, Dawson Technical Institute, Malcolm X College West Campus, Olive-Harvey College South Campus, and Wilbur Wright College Humboldt Park Campus. The City Colleges system also includes the award-winning Washburne Culinary & Hospitality Institute, Sikia Restaurant, Child Development Centers, and radio station WKKC—FM 89.3.

To read more about the success of students who made the smart choice to attend City Colleges, visit www.ccc.edu/success (http://www.ccc.edu/success/). To read City Colleges' strategic plans, visit www.ccc.edu/strategicplan (http://www.ccc.edu/strategicplan/).

College Information

City Colleges of Chicago Mission

City Colleges of Chicago (CCC) delivers exceptional learning opportunities and educational services for diverse student populations in Chicago.

We enhance knowledge, understanding, skills, collaboration, community service and life-long learning by providing a broad range of quality, affordable courses, programs, and services to prepare students for success in a technologically advanced and increasingly interdependent global society.

We work proactively to eliminate barriers to employment and to address and overcome casual factors underlying socioeconomic disparities and inequities of access and graduation in higher education.

www.ccc.edu/menu/pages/mission (http://www.ccc.edu/menu/Pages/Mission.aspx)

Harry S Truman College

Mission

Harry S Truman College's mission dedicates us to deliver high-quality, innovative, affordable and accessible educational opportunities and services that prepare students for a rapidly changing and diverse global economy.

Campus:

1145 West Wilson Avenue
Chicago, Illinois 60640

Centers of Excellence:

Education & Child Development
Scientific Technology & Innovation

For more information, visit www.ccc.edu/truman (http://www.ccc.edu/truman/)

Harold Washington College

Mission

Harold Washington College is a student-centered institution that empowers all members of its community through accessible and affordable academic advancement, career development and personal enrichment.

Campus:

30 East Lake Street
Chicago, Illinois 60601

For more information, visit www.ccc.edu/haroldwashington (http://www.ccc.edu/haroldwashington/)

Kennedy-King College

Mission

Kennedy-King College transforms lives and communities through the power of education by providing accessible, culturally diverse, exceptional, and globally competitive programs that empower all learners to achieve their intellectual, social, and economic goals

Main Campus:

6301 South Halsted Street
Chicago, Illinois 60621

Satellite Campus:

Dawson Technical Institute
3901 South State Street
Chicago, Illinois 60609

Centers of Excellence:

Culinary Arts and Hospitality
Construction Technology

For more information, visit: www.ccc.edu/kennedyking (http://www.ccc.edu/kennedyking/)

Malcolm X College

Mission

Malcolm X College provides accessible liberal arts and health-focused education that fosters personal and professional achievement.

Main Campus:

1900 West Jackson Boulevard
Chicago, Illinois 60612

Satellite Campus:

Malcolm X College West Campus
4624 West Madison Street
Chicago, Illinois 60644

Center of Excellence:

Healthcare

For more information, visit: www.ccc.edu/malcolmx (http://www.ccc.edu/malcolmx/)

Olive-Harvey College

Mission

The mission of Olive-Harvey College is to develop a diverse community of cultural and civic leaders and to advance progressive global citizenship through academic excellence, work-based learning, and comprehensive support services.

Main Campus:

10001 South Woodlawn Avenue
Chicago, Illinois 60628

Satellite Campus:

Olive-Harvey College South Ca
3055 East 92nd Street
Chicago, Illinois 60617

Center of Excellence:

Transportation, Distribution, and Logistics

For more information, visit: www.ccc.edu/oliveharvey (http://www.ccc.edu/oliveharvey/)

Richard J. Daley College

Mission

Richard J. Daley College empowers our diverse community to achieve their goals through innovative education and programming in a supportive, inclusive, and equitable environment for life#long learning.

Main Campus:

7500 South Pulaski Road
Chicago, Illinois 60652

Satellite Campus:

Arturo Velasquez Institute
2800 South Western Avenue
Chicago, Illinois 60608

Center of Excellence:

Advanced Manufacturing

For more information, visit www.ccc.edu/daley (http://www.ccc.edu/daley/)

Wilbur Wright College

Mission

Wilbur Wright College is a student#centered, community#based, equity#focused institution of higher education. We provide a culturally responsive education for a diverse body of learners seeking a high# quality education for baccalaureate transfer, workforce preparation, career advancement, and personal development.

Main Campus:

4300 North Narragansett Avenue
Chicago, Illinois 60634

Satellite Campus:

Wilbur Wright College Humboldt Park Campus
1645 North California Avenue
Chicago, Illinois 60647

Center of Excellence:

Engineering and Computer Science

For more information, visit www.ccc.edu/wright (http://www.ccc.edu/wright/)

All seven City Colleges of Chicago are independently accredited by the* Higher Learning Commission *(https://www.hlcommission.org/) (HLC). Some programs also maintain additional specialized accreditation.* Click here *(https://www.ccc.edu/menu/Pages/Accreditation.aspx) to find more information about each of the colleges accreditation status.

Student Resources

Student Services

Each college offers a broad range of services to support the achievement of students' academic, career, and personal goals, as well as referrals to external support agencies, as needed. Some of the many student services are listed below and on subsequent pages. More information, including contact and location information at each college, may be found at www.ccc.edu/studentservices (http://www.ccc.edu/studentservices/).

Services and Resources	Website
Academic Calendar	www.ccc.edu/calendar (http://www.ccc.edu/calendar/)

ACCESS Centers	www.ccc.edu/access (http://www.ccc.edu/access/)
Advising	www.ccc.edu/advising (http://www.ccc.edu/advising/)
Alumni	www.ccc.edu/alumni (http://www.ccc.edu/alumni/)
Career Planning and Placement	www.ccc.edu/careerservices (http://www.ccc.edu/careerservices/)
Child Development Lab Schools	www.ccc.edu/childcare (http://www.ccc.edu/childcare/)
Class Schedules	www.ccc.edu/classschedules (http://www.ccc.edu/classschedules/)
International Students	www.ccc.edu/internationalstudents (http://www.ccc.edu/internationalstudents/)
Online Course Options	www.ccc.edu/onlinelearning (http://www.ccc.edu/onlinelearning/)
Placement Tests and Resources	www.ccc.edu/testing (http://www.ccc.edu/testing/)
Student Government Association (SGA)	www.ccc.edu/sga (http://www.ccc.edu/sga/)
Textbook Rental	www.ccc.edu/bookstore (http://www.ccc.edu/bookstore/)
Transfer Resources	www.ccc.edu/transfer (http://www.ccc.edu/transfer/)
Tutoring	www.ccc.edu/tutoring (http://www.ccc.edu/tutoring/)
Ventra U-Pass	www.ccc.edu/upass (http://www.ccc.edu/upass/)
Veterans Services	www.ccc.edu/veterans (http://www.ccc.edu/veterans/)
Wellness Centers	www.ccc.edu/wellnesscenter (http://www.ccc.edu/wellnesscenter/)

Financial Aid and Tuition

At City Colleges of Chicago, we are dedicated to helping students get the assistance they may need to attend one of our seven colleges. The Financial Aid Offices at City Colleges of Chicago work closely with students and families to provide financial assistance in the form of grants, loans, and work-study from federal and state resources. The Financial Aid Office is your guide and resource to help make college affordable. Please visit your respective college's Financial Aid Office for more information regarding the financial aid process.

Financial Services	Website
CAREER Agreement[1]	www.ccc.edu/chargeback (http://www.ccc.edu/chargeback/)
Financial Aid	www.ccc.edu/financialaid (http://www.ccc.edu/financialaid/)
Residency	www.ccc.edu/services/pages/residency-verification.aspx (http://www.ccc.edu/services/pages/residency-verification.aspx)
Payment Information	www.ccc.edu/waystopay (http://www.ccc.edu/waystopay/)
Tuition	www.ccc.edu/tuition (http://www.ccc.edu/tuition/)
Tuition Waivers	www.ccc.edu/services/Pages/Tuition-Waivers.aspx (http://www.ccc.edu/services/Pages/Tuition-Waivers.aspx)
Withdrawals and Refunds	www.ccc.edu/services/Pages/Tuition-Refund-Policy.aspx (http://www.ccc.edu/services/Pages/Tuition-Refund-Policy.aspx)

[1] Cooperative agreement between Illinois community college districts for programs not offered by CCC.

Academic Catalog

Students are assigned an academic career, program, and plan upon enrolling (consistent with Focus Area and Pathway choices made by the student). Students are required to follow the academic program/plan requirements in the Academic Catalog in effect at the time of their enrollment, subject to CCC Academic Policy (https://catalog.ccc.edu/academic-student-policy/).

Academic and Student Policy Manual

All students at all times are subject to the current Academic and Student Policy Manual (https://catalog.ccc.edu/academic-student-policy/), unless a new board rule has superseded the text in the policy manual. The manual includes detailed policies related to student procedures and protocols including transfer policies, financial aid policies, grade designation, graduation, responsible computer use, and more. The complete Academic and Student Policy Manual can be found at catalog.ccc.edu/academic-student-policy/ (https://catalog.ccc.edu/academic-student-policy/)

Transfer Resources

Start here and get the support you need to transfer anywhere.

For more information on transfer resources, visit www.ccc.edu/transfer (http://www.ccc.edu/transfer/)

Services and Resources	Website
Transfer Centers	pages.ccc.edu/apply/transfer/#center (https://pages.ccc.edu/apply/transfer/#center)
Transfer Events at City Colleges	pages.ccc.edu/apply/transfer/#events (https://colleges.ccc.edu/events/tag/transfer/)
Transfer Partnerships with City Colleges	pages.ccc.edu/apply/transfer/#partners (https://pages.ccc.edu/apply/transfer/#partners)

Transfer Scholarships	ccc.edu/departments/Pages/Transferring-to-4-Year-Institutions-Scholarship-Resources (https://www.ccc.edu/departments/Pages/Transferring-to-4-Year-Institutions-Scholarship-Resources.aspx)
Illinois Articulation Initiative (IAI)	itransfer.org (https://itransfer.org/aboutiai/)
Transferology	transferology.com (https://transferology.com/)
Credit for Prior Learning (CPL)	colleges.ccc.edu/cpl (https://colleges.ccc.edu/cpl/)
Reverse Transfer of Credit	ccc.edu/departments/Pages/Reverse-Transfer-of-Credit (https://www.ccc.edu/departments/Pages/Reverse-Transfer-of-Credit.aspx)

CREDENTIALS OFFERED

Associate in Applied Science

The Associate in Applied Science (AAS) degrees are occupational programs that are structured for students primarily interested in acquiring Career Technical Education (CTE) skills in order to enter the job market. However, a number of four-year institutions offer baccalaureate degrees designed to accommodate AAS degree graduates. Students planning to transfer to a four-year institution should meet with an advisor from the institution to which he/she plans to attend to discuss transferability of the AAS degree and individual courses.

Students seeking an AAS degree must select a program of study, (e.g., Child Development, Manufacturing Technology, Nursing) in order to determine the specific general education courses, the program core courses, and electives that are required to complete the program. An AAS degree is comprised of 50 to 75% of required technical core and specialty course work. Additionally, the AAS degree requires a minimum of 15 credit hours of general education. Students are required to take at least one course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate in Applied Science degree.

Code	Title	Hours
Minimum General Education		**15**
Minimum Degree Core and Electives		**45**
Total Hours		**60**

Degree offered at: DA, KK, MX, OH, TR, HW, WR

For individual AAS Degree requirements, see program pages under Academic Program Requirements (https://catalog.ccc.edu/programs/#filter=filter_18&filter_31)

Associate in Arts

The Associate in Arts (AA) degree prepares an individual for transfer to a four-year college or university. Consistent with the IAI model and the ICCB Administrative Rules, City Colleges of Chicago requires that the degree is inclusive of a minimum of 37 semester hours of General Education.

For students who want to earn an associate degree before transferring to a four-year institution, the Associate in Arts degree (AA) is the traditional choice for most students. The AA degree indicates a student has mastered the basics of higher education. This degree plan provides you with the IAI General Education Core Curriculum (GECC) courses explained above, and in addition, you will select elective classes (25 credit hours).

Students are required to take at least one course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate in Arts degree.

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Mathematics		3
Fine Arts & Humanities [1]		9
Social and Behavioral Sciences		9
Physical Sciences & Life Sciences [2]		7
AA Electives		
Students should work with a College Advisor to select appropriate core and elective courses or select an AA semester map as a guide.		23
Total Hours		**60**

1. At least one (1) of the courses must be from the Fine Arts category, and at least one (1) must be from the Humanities category.
2. At least one (1) of the courses must be from the Physical Sciences category, and at least one (1) must be from the Life Sciences category. At least one (1) lab course is required.

At least one course must meet the Human Diversity (HD) requirement.

Degree offered at: DA, KK, MX, OH, TR, HW, WR

Associate in Engineering Science

The Associate in Engineering Science (AES) degree offers courses required for transfer to a four-year college or university for students majoring in engineering sciences. Completion of the AES degree does not fulfill the requirements of the IAI General Education Core Curriculum (IAI GECC). City Colleges of Chicago requires that the degree is inclusive of a minimum of 22 semester hours of General Education. A student must complete the general education requirements of the college or university to which she/he transfers.

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
MATH 207	Calculus & Analytic Geometry I	5
CHEM 201	General Chemistry I	5
One Fine Arts & Humanities course [1]		3
One Social and Behavioral Sciences course [1]		3
Required Degree Core		
ENGR 190	Computer Programming for Engineers	3
or CIS 142	C++ Object Oriented Programming I	
MATH 208	Calculus & Analytic Geometry II	5
MATH 209	Calculus & Analytic Geometry III	5
MATH 210	Differential Equations	3
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
Program Electives		
Select a minimum of 16 credit hours of program electives (p. 13)		16
Total Hours		**64**

1. One of the courses in the Humanities or Social and Behavioral Sciences category must satisfy the Human Diversity requirement.

Program Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
BIOLOGY 121	Biology I	5
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 206	Elements of Mechanics-Statics	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
ENGR 250	Engineering Projects	2
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

[1] One of the courses in the Humanities or Social & Behavioral Sciences category must satisfy the Human Diversity requirement.

Degree offered at: DA, TR, HW, WR

Associate in Fine Arts

CCC offers three Associate in Fine Arts programs. See their program pages for requirements:

- Art (Studio), Associate in Fine Arts (p. 61)
- Music Education, Associate in Fine Arts (p. 372)
- Music Performance, Associate in Fine Arts (p. 374)

Associate in General Studies

The Associate in General Studies (AGS) degree provides students the ability to explore a broad range of college-level courses to develop new skills or investigate a personal interest. Courses may transfer individually to a four-year university, but the degree as a whole is not designed for transfer or as an occupational degree. Students should work closely with an advisor to determine if the AGS is the right degree program to reach their individual goals. City Colleges of Chicago requires that the degree is inclusive of a minimum of 20 semester hours of General Education.

Code	Title	Hours
General Education [1]		
ENGLISH 101	Composition	3
Select 17 credit hours from at least three of the following disciplines:		17
Mathematics		
Fine Arts & Humanities		
Social and Behavioral Sciences		
Physical Sciences & Life Sciences		
Degree Electives		
Select 40 credit hours		40
Total Hours		**60**

[1] Students are required to take at least one general education course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate Degree.

Degree offered at: DA, KK, MX, OH, TR, HW, WR

Associate in Science

The Associate in Science (AS) degree prepares an individual for transfer to a four-year college or university. Consistent with the IAI model and the ICCB Administrative Rules, City Colleges of Chicago requires that the degree is inclusive of a minimum of 37 semester hours of General Education. For students who already know they are interested in science, technology, engineering, or mathematics (the "STEM" fields), the Associate in Science degree, or even the Associate in Engineering Science (AES), is probably the one to pursue. This is also a transfer degree, and it is similar to the Associate in Arts. The main difference early-on concerns the selection of specific math and science courses, which will be different for students who want to major in a STEM field. Again, working closely with your advisor will ensure that you enroll in the right classes to achieve your goals.

Students are required to take at least one course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate in Science degree.

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Mathematics		6
Social and Behavioral Sciences		6
Fine Arts & Humanities [1]		6
Physical Sciences & Life Sciences [2]		10
AS Electives		
Students should work with a College Advisor to select appropriate core and elective courses, or simply select an AS semester map as a guide.		23
Total Hours		**60**

[1] At least one (1) of the courses must be from the Fine Arts category, and at least one (1) must be from the Humanities category.

[2] At least one (1) of the courses must be from the Physical Sciences category, and at least one (1) must be from the Life Sciences category. At least one (1) lab course is required.

At least one course must meet the Human Diversity (HD) requirement.

Degree offered at: DA, KK, MX, OH, TR, HW, WR

Career Certificates

City Colleges of Chicago offers two types of career certificates designed to prepare students directly for careers in a shorter amount of time than a degree program. Many certificates stack into higher-level credentials for students to continue their education

Basic Certificates

Basic Certificates (BCs) are less than 30 credit hours and can generally be completed in 1-2 semesters. For individual Basic Certificate requirements, see program pages under Academic Program Requirements (https://catalog.ccc.edu/programs/#filter=filter_18&filter_17).

Advanced Certificates

Advanced Certificates (ACs) are between 30-50 credit hours and can generally be completed in 2-3 semesters. For individual Advanced Certificate requirements, see program pages under Academic Program Requirements (https://catalog.ccc.edu/programs/#filter=filter_18&filter_30).

General Education Core Curriculum

The General Education Core Curriculum (GECC) Credential is a 37 credit hour transfer credential intended for students interested in completing a distribution of courses designed to satisfy the first two years of a baccalaureate degree at most four-year colleges or universities. The GECC Credential is aligned to the Associate in Arts degree and focuses on the general education requirements required for transfer. The GECC Credential is comprised of courses approved through the Illinois Articulation Initiative and must be completed according the general education categories below:

Code	Title	Hours
Communications		9
Math		3
FineArts & Hum		9
Social & Behavioral Sciences		9
Physical & Life Sciences		7
Total Hours		**37**

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Select one Math course for a minimum of three credit hours		3
MATH 118	General Education Math	
MATH 122	Math For Elementary Teachers II	
MATH 124	Critical Mathematics	
MATH 125	Introductory Statistics	
MATH 144	Finite Mathematics	
MATH 146	Discrete Mathematics	
MATH 204	Calculus For Business & Social Sciences	
MATH 207	Calculus & Analytic Geometry I	
MATH 208	Calculus & Analytic Geometry II	
MATH 209	Calculus & Analytic Geometry III	
Select three Fine Art & Hum courses for a minimum of nine credit hours [1]		9
AFRO AM 101	Introduction to African-American Studies	
ART 103	Art Appreciation	
ART 130	African-American Art	
CHINESE 104	Chinese IV	
CMMEDIA 163	Film Rhetoric	
RELIGN 101	Introduction To Religion	
RELIGN 102	The Bible - Hebrew Old Test	
RELIGN 103	The Bible - New Testament	
RELIGN 104	Introduction to Islam	
RELIGN 106	Comparative Religion I/Eastern Religion	
RELIGN 107	Com Rel II Western Religion	
FIN ART 104	The World Of The Cinema	
FIN ART 105	History of Painting, Sculpture & Architecture	
FIN ART 107	History of Architecture, Painting & Sculpture I	
FIN ART 108	Hist Of Arch Paint Sculp II	
FIN ART 109	History Of Cinema	
FIN ART 110	Opera And The Humanities	
FIN ART 111	History of Photography	
FIN ART 112	Dance Appreciation	
FIN ART 114	Film History I	
FIN ART 115	Film History II	
FRENCH 104	Fourth Course French	
FRENCH 213	Intro To Modern Literature French	
FRENCH 214	Readings In Literature French	
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	
GWSS 203	Feminist and Queer Artivisms for Social Change	
HUM 123	Intro To Arts & Ideas	
HUM 143	Intro to Latin American/Latino Studies	
HUM 144	Gender and Feminisms in the Arts	
HUM 145	Intro to Diversity/Ethnic Studies	
HUM 146	Gay, Lesbian, Bisexual & Transgender	
HUM 201	General Course I Humanities	
HUM 202	General Course II Humanities	
HUM 203	Arts of Contemporary America	
HUM 205	World Literature I	
HUM 207	The Great Books	
HUM 208	Women In Creative-Performing Arts	
HUM 209	Latinxs in Chicago	
HUM 210	Comparative Mythology	
HUM 212	Non-Western Humanities	
HUM 215	The Art and Philosophy of the African Continent	
ITALIAN 104	Fourth Course Italian	
JAPANES 104	Fourth Course Japanese	
LIT 110	Introduction To Literature	
LIT 111	Poetry	
LIT 112	Drama	
LIT 113	Fiction	
LIT 114	Ideas In Prose	

	LIT 115	Great Books Seminar/Topics Literature
	LIT 116	American Literature from Colonial Days to Civil War
	LIT 117	American Literature from the Civil War to the 20th Century
	LIT 118	English Literature from its Beginnings to the Age of Johnson
	LIT 119	English Literature from the Romantic Revival to the 20th Century
	LIT 121	Contemporary African American Literature
	LIT 122	Perspectives in Black Literature
	LIT 123	Literature of the U.S. from the Civil War to the Present
	LIT 126	Contemporary American Literature
	LIT 127	Contemporary British Literature
	LIT 128	Latin American Literature
	LIT 129	U.S. Latino (a) Literature
	LIT 130	Children's Literature
	LIT 132	Native American Literature
	LIT 137	The Black Woman In Black Fiction
	LIT 150	Women's Literature
	LIT 153	Gay and Lesbian Literature
	LIT 155	Literature and Film
	LIT 156	Creative Non-fiction
	LIT 211	Shakespeare
	LIT 220	World Literature
	MUSIC 121	Introduction To Music
	MUSIC 124	Trends In Mod Amer Music
	MUSIC 183	World Music
	MUSIC 221	Music Literature & History
	PHIL 105	Logic
	PHIL 106	Introduction To Philosophy
	PHIL 107	Ethics
	PHIL 108	Philosophy Of Religion
	PHIL 110	Social/Political Philosophy
	PHIL 201	Greek Philo To Renaissance
	PHIL 202	Enlightenment To Present
	PHIL 215	Problems In Philosophy
	PHIL 216	Critical Thinking
	POLISH 104	Fourth Course Polish
	SPANISH 104	Fourth Course Spanish
	SPANISH 111	Spanish For Hispanos
	SPANISH 113	Spanish For Near Native Speakers I
	SPANISH 210	Modern Civilization & Culture Spanish
	SPANISH 213	Intro To Modern Literature Spanish
	SPANISH 214	Readings In Literature Spanish
	THR ART 131	Intro To Theater
	THR ART 134	Theater Diversity in the U.S.
Select three Social & Behavioral Science courses for a minimum of 9 credit hours [2]		9
	ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans
	ANTHRO 202	Cultural Anthropology
	ANTHRO 205	Applied Anthropology
	ANTHRO 206	Introduction to Archaeology
	ECON 201	Principles Of Economics I
	ECON 202	Principles Of Economics II
	GEOG 101	World Geography
	GEOG 102	Economic Geography
	GWSS 102	Introduction to Gender and Sexuality Diversity
	GWSS 103	Introduction to Social Justice
	HISTORY 111	History of American People To 1865
	HISTORY 112	History of American People From 1865
	HISTORY 114	The Afro-American In American History
	HISTORY 141	History of World Civilization to 1500
	HISTORY 142	Hist World Civiliz Frm 1500
	HISTORY 215	History of Latin America
	HISTORY 216	U.S. Latinx History
	HISTORY 225	Modern Middle East History
	HISTORY 243	The Far East in the Modern World
	HISTORY 247	African History to Colonial Period
	HISTORY 248	African History - Modern Period
	POL SCI 200	Principles of Political Science
	POL SCI 201	The National Government
	POL SCI 203	Comparative Government
	POL SCI 204	International Relations
	POL SCI 207	U.S. State & Local Government
	PSYCH 201	General Psychology
	PSYCH 207	Child Psychology
	PSYCH 211	Social Psychology
	PSYCH 214	Adolescent Psychology
	PSYCH 222	Adult Development And Aging
	PSYCH 224	Life Span Developmental Psychology
	SOC SCI 101	General Course I Social Science
	SOC SCI 102	General Course II Social Science
	SOC 201	Intro To the Study Of Society
	SOC 203	Sociology of Families and Intimate Relationships
	SOC 205	Social Problems
	SOC 207	The Sociology Of Sex & Gender
	SOC 211	Race & Ethnic Relations
	SOC 241	Institutional Racism
Select two Physical & Life Science courses for a minimum of 7 credit hours [3]		7
	ASTROMY 201	Descriptive Astronomy
	ASTROMY 203	The Solar System
	BIOLOGY 109	Human Genetics & Evolution
	BIOLOGY 114	General Education Biology
	BIOLOGY 115	Human Biology
	BIOLOGY 119	Environmental Biology
	BIOLOGY 121	Biology I
	BIOLOGY 122	Biology II
	BOTANY 201	General Botany I
	CHEM 121	Basic Chemistry I
	CHEM 201	General Chemistry I
	ENVR ST 101	Man & Environment I

ENVR TC 107	Environmental Geology
GEOG 201	Physical Geography
GEOLOGY 201	Physical Geology
OCEAN 101	Intro To Oceanography
OCEAN 201	Marine Sciences
PHY SCI 101	General Course Physical Science
PHY SCI 102	General Course Physical Science
PHY SCI 107	Current Public Issues in Physical Science
PHY SCI 111	General Course I Physical Science
PHY SCI 112	General Course II Physical Science
PHY SCI 118	Introduction to Meteorology
PHYSICS 115	Physics of Energy and Climate
PHYSICS 221	Mechanics, Waves, and Heat
PHYSICS 231	General Physics I: Mechanics & Wave Motion
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion
Total Hours	**37**

[1] At least one (1) of the courses must be from the Fine Arts category, and at least one must be from the Humanities category
[2] At least two of the courses must be from different disciplines
[3] At least one of the courses must be a lab course, at least one of the courses must be a Life Science category course, and at least one of the courses courses must be a Physical Science category

Program offered at: DA, KK, MX, OH, TR, HW, WR

ACADEMIC PROGRAM REQUIREMENTS

A

- Accounting Clerk, Basic Certificate (p. 19)
- Accounting, Advanced Certificate (p. 22)
- Accounting, Associate in Applied Science (p. 24)
- Accounting, Basic Certificate (p. 28)
- Addictions Studies, Advanced Certificate (p. 30)
- Addictions Studies, Associate in Applied Science (p. 32)
- Addictions Studies, Basic Certificate (p. 35)
- Advanced Social Services - Addictions Studies, Advanced Certificate (p. 37)
- Advanced Social Services - Addictions Studies, Associate in Applied Science (p. 39)
- Air Conditioning - Commercial Refrigeration, Basic Certificate (p. 42)
- Air Conditioning - Domestic Refrigeration, Basic Certificate (p. 44)
- Air Conditioning - Heating, Basic Certificate (p. 46)
- Air Conditioning and Refrigeration, Advanced Certificate (p. 48)
- Air Conditioning and Refrigeration, Associate in Applied Science (p. 50)
- Alternative Fuel Vehicle Technology, Basic Certificate (p. 52)
- Architectural Digital Media, Basic Certificate (p. 54)
- Architecture, Associate in Applied Science (p. 56)
- Architecture, Basic Certificate (p. 59)
- Art (Studio), Associate in Fine Arts (p. 61)
- Associate in Arts (p. 63)
- Associate in Engineering Science (p. 65)
- Associate in General Studies (p. 67)
- Associate in Science (p. 68)
- Automotive Body Reconstruction Technology, Basic Certificate (p. 70)
- Automotive Body Repainting Technology, Basic Certificate (p. 72)
- Automotive Chassis Maintenance, Basic Certificate (https://catalog.ccc.edu/academic-program-requirements/automotive-chassis-maintenance-basic-certificate/)
- Automotive Fuel Management Technology, Basic Certificate (https://catalog.ccc.edu/academic-program-requirements/automotive-fuel-management-technology-basic-certificate/)
- Automotive Maintenance, Basic Certificate (https://catalog.ccc.edu/academic-program-requirements/automotive-maintenance-basic-certificate/)
- Automotive Technology, Advanced Certificate (p. 74)
- Automotive Technology, Associate in Applied Science (p. 76)
- Automotive Technology, Basic Certificate (p. 78)
- Aviation Maintenance Technician - General, Basic Certificate (p. 80)
- Aviation Maintenance Technician, Associate in Applied Science (p. 82)

B

- Baking and Pastry Arts, Advanced Certificate (p. 84)
- Baking and Pastry Arts, Associate in Applied Science (p. 86)
- Baking and Pastry Arts, Basic Certificate (p. 88)
- Banking, Basic Certificate (p. 90)
- Bar Management, Associate in Applied Science (p. 93)
- Barbering, Advanced Certificate (p. 96)
- Barbering, Associate in Applied Science (p. 98)
- Bilingual Educator Endorsement, Basic Certificate (p. 100)
- Bilingual Teacher Aide, Associate in Applied Science (p. 102)
- Biotechnology, Associate in Applied Science (p. 103)
- BNA Fundamentals and Clinical, Basic Certificate (p. 107)
- Business Administration/General Business, Advanced Certificate (p. 110)

C

- Cannabis Applied Studies, Basic Certificate (p. 111)
- Cannabis Dispensary Operations Specialist, Basic Certificate (p. 112)
- Cannabis Processing Technician, Advanced Certificate (p. 113)
- Cannabis Studies, Associate in Applied Science (p. 115)
- Chemical Laboratory Technology, Associate in Applied Science (p. 117)
- Child Development: Early Childhood Education, Advanced Certificate (p. 121)
- Child Development: Early Childhood Education, Basic Certificate (p. 120)
- Child Development: Infant/Toddler, Advanced Certificate (p. 126)
- Child Development:Early Childhood Education, Associate in Applied Science (p. 123)
- Class C Driver Training, Basic Certificate (p. 128)
- Cloud Computing, Associate in Applied Science (p. 131)
- CNC Engineering Technology, Advanced Certificate (p. 138)
- CNC Engineering Technology, Associate in Applied Science (p. 143)
- CNC Operations, Basic Certificate (p. 147)
- CNC Technology, Basic Certificate (p. 148)
- Collision Technology, Advanced Certificate (p. 151)
- Combination Welder, Basic Certificate (p. 153)
- Commercial Driver Training, Basic Certificate (p. 155)
- Commercial Passenger Driver: Class B, Basic Certificate (p. 157)
- Communication Design, Advanced Certificate (p. 159)
- Communication Design, Associate in Applied Science (p. 163)
- Communication Design: Print Design, Basic Certificate (p. 161)
- Communication Design: Web Page Design, Basic Certificate (p. 165)
- Communications Technology, Advanced Certificate (p. 167)
- Communications Technology, Associate in Applied Science (p. 169)
- Communications Technology, Basic Certificate (p. 172)
- Community Health Care Worker, Basic Certificate (p. 174)
- Community Leadership, Basic Certificate (p. 176)
- Computed Tomography, Basic Certificate (p. 177)
- Computer Information Systems, Advanced Certificate (p. 178)
- Computer Information Systems, Associate in Applied Science (p. 180)

- Computer Information Systems, Basic Certificate (p. 181)
- Computer Numeric Control Machining, Advanced Certificate (p. 182)
- Computer Numeric Control Machining, Basic Certificate (p. 183)
- Computer-Aided Drafting (CAD) Technology, Advanced Certificate (p. 184)
- Computer-Aided Drafting (CAD) Technology, Associate in Applied Science (p. 186)
- Computer-Aided Drafting (CAD) Technology, Basic Certificate (p. 188)
- Computer-Aided Drafting Engineering Technology, Advanced Certificate (p. 190)
- Computer-Aided Drafting Engineering Technology, Associate in Applied Science (p. 193)
- Construction Carpentry, Basic Certificate (p. 196)
- Construction Management, Associate in Applied Science (p. 199)
- Construction Masonry, Basic Certificate (p. 201)
- Cosmetology Teacher Training 1000-Hour Program, Basic Certificate (p. 204)
- Cosmetology Teacher Training 500-Hour Program, Basic Certificate (p. 206)
- Cosmetology, Advanced Certificate (p. 208)
- Cosmetology, Associate in Applied Science (p. 210)
- CPA Preparation—Post Baccalaureate, Advanced Certificate (p. 212)
- Criminal Justice: Private Police Services, Advanced Certificate (p. 214)
- Criminal Justice: Private Police Services, Basic Certificate (p. 216)
- Criminal Justice: Public Police Services, Advanced Certificate (p. 218)
- Criminal Justice: Public Police Services, Associate in Applied Science (p. 220)
- Criminal Justice: Public Police Services, Basic Certificate (p. 222)
- Culinary Arts, Advanced Certificate (p. 224)
- Culinary Arts, Associate in Applied Science (p. 227)
- Culinary Arts, Basic Certificate (p. 231)
- Cybersecurity, Advanced Certificate (p. 233)
- Cybersecurity, Associate in Applied Science (p. 235)
- Cybersecurity, Basic Certificate (p. 238)

D

- Dental Hygiene, Associate in Applied Science (p. 239)
- Diesel Technology, Advanced Certificate (p. 242)
- Diesel Technology, Associate in Applied Science (p. 244)
- Diesel Technology, Basic Certificate (p. 246)
- Digital Marketing and Social Media, Advanced Certificate (p. 248)
- Digital Multimedia Design, Advanced Certificate (p. 250)
- Digital Multimedia Design, Associate in Applied Science (p. 252)
- Digital Multimedia Design, Basic Certificate (p. 254)

E

- Early Childhood Special Education Endorsement, Basic Certificate (p. 256)
- Electrical Construction Technology, Advanced Certificate (p. 258)
- Electrical Construction Technology, Associate in Applied Science (p. 260)
- Electrical Construction Technology, Basic Certificate (p. 262)
- Emergency Medical Technician (EMT), Basic Certificate (p. 264)
- EMT-II Paramedic, Advanced Certificate (p. 266)
- EMT-II Paramedic, Associate in Applied Science (p. 269)
- English as a Second Language, Basic Certificate (p. 272)
- Environmental Technology, Associate in Applied Science (p. 273)
- Environmental Technology, Basic Certificate (p. 275)

F

- Fire Officer Training, Basic Certificate (p. 277)
- Fire Science Management, Associate in Applied Science (p. 280)
- Fire Service Operations, Associate in Applied Science (p. 284)
- Forklift Operation and Safety, Basic Certificate (p. 288)

G

- Game Design and Development, Associate in Applied Science (p. 290)
- Gas Utility Worker, Advanced Certificate (p. 292)
- General Education Core Curriculum (GECC) Credential (p. 294)

H

- Health Information Technology, Associate in Applied Science (p. 297)
- Hospitality Management, Advanced Certificate (p. 300)
- Hospitality Management, Associate in Applied Science (p. 304)
- Human Development and Family Studies, Advanced Certificate (p. 308)
- Human Development and Family Studies, Associate in Applied Science (p. 310)
- Human Development and Family Studies, Basic Certificate (p. 313)
- Human Resources, Basic Certificate (p. 315)

I

- Industrial Supervision Engineering Technology, Advanced Certificate (p. 317)
- Industrial Supervision Engineering Technology, Associate in Applied Science (p. 319)
- iOS and MacOS Development, Basic Certificate (p. 322)

L

- Law and Paralegal Studies, Associate in Applied Science (p. 398)
- Learning Behavior Specialist 1, Basic Certificate (p. 325)
- Library Technical Assistant, Associate in Applied Science (p. 329)
- Library Technical Assistant, Basic Certificate (https://catalog.ccc.edu/academic-program-requirements/library-technical-assistant-basic-certificate/)

M

- Mammography, Basic Certificate (p. 330)
- Management/Marketing, Advanced Certificate (p. 333)
- Management/Marketing, Associate in Applied Science (p. 334)

- Management/Marketing, Basic Certificate (p. 332)
- Manufacturing Technology, Associate in Applied Science (p. 341)
- Manufacturing Technology, Basic Certificate (p. 338)
- Master Builder, Advanced Certificate (p. 343)
- Mechatronics Engineering Technology, Advanced Certificate (p. 346)
- Mechatronics Engineering Technology, Associate in Applied Science (p. 349)
- Media Communications, Associate in Applied Science (p. 353)
- Medical Assisting, Advanced Certificate (p. 358)
- Medical Billing, Basic Certificate (p. 360)
- Medical Coding, Advanced Certificate (p. 363)
- Mortuary Science, Associate in Applied Science (p. 365)
- Music Business, Basic Certificate (p. 370)
- Music Education, Associate in Fine Arts (p. 372)
- Music Performance, Associate in Fine Arts (p. 374)
- Music Technology, Basic Certificate (p. 376)

N

- Networking Systems and Technology, Advanced Certificate (p. 378)
- Networking Systems and Technology, Associate in Applied Science (p. 381)
- Networking Systems and Technology, Basic Certificate (p. 385)
- Nursing, Associate in Applied Science (p. 388)

O

- Occupational Therapy Assistant, Associate in Applied Science (p. 391)
- Outpatient Pharmacy Technology, Basic Certificate (p. 394)
- Overhead Electrical Line Worker, Advanced Certificate (p. 396)

P

- Patient Care Technician, Basic Certificate (p. 401)
- Personal Fitness Trainer, Basic Certificate (p. 404)
- Pharmacy Technology, Advanced Certificate (p. 406)
- Phlebotomy, Basic Certificate (p. 408)
- Physical Therapist Assistant, Associate in Applied Science (p. 410)
- Plumbing and Fire Protection, Basic Certificate (p. 413)
- Practical Nursing, Advanced Certificate (p. 415)

R

- Racial Healing Practitioner, Basic Certificate (p. 422)
- Radiography, Associate in Applied Science (p. 418)
- Respiratory Care, Associate in Applied Science (p. 424)

S

- Social Work: Family Specialist Practitioner Basic Certificate (p. 427)
- Social Work: Family Specialist Practitioner, Advanced Certificate (p. 429)
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- Social Work: Youth Work, Advanced Certificate (p. 434)
- Social Work: Youth Work, Basic Certificate (p. 435)
- Software Development, Advanced Certificate (p. 437)
- Software Development, Associate in Applied Science (p. 440)
- Software Development, Basic Certificate (p. 444)
- Sterile Processing, Basic Certificate (p. 447)
- Supply Chain Management and Logistics, Advanced Certificate (p. 452)
- Supply Chain Management and Logistics, Associate in Applied Science (p. 449)
- Supply Chain Management and Logistics, Basic Certificate (p. 454)
- Surgical Technology, Associate in Applied Science (p. 457)
- Sustainable Urban Horticulture, Advanced Certificate (p. 460)

T

- Technology Specialist Endorsement, Basic Certificate (p. 462)

U

- Unity Programming, Basic Certificate (p. 464)
- Urban Agriculture, Basic Certificate (p. 465)

W

- Web Development, Advanced Certificate (p. 467)
- Web Development, Associate in Applied Science (p. 470)
- Web Development, Basic Certificate (p. 472)
- Welding Engineering Technology, Advanced Certificate (p. 474)
- Welding Engineering Technology, Associate in Applied Science (p. 477)

Accounting Clerk, Basic Certificate

College(s): HW

Program Code: 0424

The Accounting Clerk Basic Certificate will prepare individuals to provide high-tech administrative support to professional accountants, financial managers, and business owners. The program will provide students with opportunities to develop basic skills in preparation for employment in modern, technology-driven offices in many entities, governments, schools, profit and non-profit organizations, and self-employment occupations.

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 183	Payroll Accounting	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 250	Computerized Accounting Systems	3
BUSINES 284	Business Communications	3
Program Electives		
Select a minimum of 3 credits of the following:		3
BUSINES 203	Intro Cost Accounting	
BUSINES 208	Federal Income Tax	
BUSINES 211	Business Law I	
BUSINES 214	The Legal & Social Environment of Business	
BUSINES 215	Corporate and Entity Federal Income Tax	
BUSINES 217	Nonprofit Accounting	
Total Hours		**26**

Pathway

This is an **example course sequence** for students interested in pursuing Accounting Clerk. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 284	Business Communications	3
	Hours	**13**
Semester 2		
BUSINES 182	Managerial Accounting	4
BUSINES 183	Payroll Accounting	3
BUSINES 250	Computerized Accounting Systems	3
Select one of the following Electives:		3
BUSINES 203	Intro Cost Accounting	
BUSINES 208	Federal Income Tax	
BUSINES 211	Business Law I	
BUSINES 214	The Legal & Social Environment of Business	
BUSINES 215	Corporate and Entity Federal Income Tax	
BUSINES 217	Nonprofit Accounting	
	Hours	**13**
	Total Hours	**26**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bookkeeping, Accounting, and Auditing Clerks

Job Description

Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,085
Median 50th Percentile	$52,023
Senior-Level 90th Percentile	$77,945

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$25
Senior-Level 90th Percentile	$37

Annual Job Openings

2732 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	47.24%
A certificate	20.79%
Some college	4.72%
An Associate degree	8.54%
A Bachelor's degree	12.19%
A Master's or Professional degree	6.52%
A Doctoral degree or more	0.00%

18.71% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Accounting, Advanced Certificate

College(s): DA, HW, OH, TR, WR

Program Code: 0003

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 204	Computer Applications Intermediate Accounting	1
BUSINES 205	Intermediate Accounting	3
BUSINES 208	Federal Income Tax	3
BUSINES 241	Introduction To Finance	3
Program Electives		
Select a minimum of 9 credit hours from the following courses or others as recommended by a College Advisor:		9
BUSINES 141	Business Mathematics	
BUSINES 203	Intro Cost Accounting	
BUSINES 206	Auditing	
BUSINES 211	Business Law I	
BUSINES 250	Computerized Accounting Systems	
CIS 120	Introduction to Computer Applications	
CIS 123	Microcomputer Spreadsheets	
CIS 145	Database Management	
CIS 158	Web Development I	
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning a degree in Accounting. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Accounting.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BUSINES 111	Introduction To Business	3
CIS 120	Introduction to Computer Applications	3
BUSINES 181	Financial Accounting	4
	Hours	**10**
Semester 2		
BUSINES 182	Managerial Accounting	4
BUSINES 241	Introduction To Finance	3
CIS 123	Microcomputer Spreadsheets [1]	3
	Hours	**10**
Semester 3		
BUSINES 204	Computer Applications Intermediate Accounting	1
BUSINES 205	Intermediate Accounting	3
BUSINES 208	Federal Income Tax	3
BUSINES 250	Computerized Accounting Systems	3
	Hours	**10**
	Total Hours	**30**

[1] Program Elective (p. 22)

Advanced Certificate Electives

Code	Title	Hours
BUSINES 141	Business Mathematics	3
BUSINES 203	Intro Cost Accounting	3
BUSINES 206	Auditing	3
BUSINES 211	Business Law I	3
BUSINES 250	Computerized Accounting Systems	3

CIS 120	Introduction to Computer Applications	3
CIS 123	Microcomputer Spreadsheets	3
CIS 145	Database Management	3
CIS 158	Web Development I	3

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Accounting, Associate in Applied Science

College(s): DA, HW, OH, TR, WR

Program Code: 0001

The Associate in Applied Science degree program in Accounting is the study of basic accounting skills. Completion of the program can lead to various levels of accounting positions in accounting firms, retail stores, manufacturing, service business, and small business employment as a junior member of an accounting staff, estimator, credit analyst, budget or general accountant, bank teller, and accounts receivable or accounts payable clerk.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
or PHIL 107	Ethics	
General Education Mathematics (MATH 118 recommended)		3
Additional General Education Courses [1]		3
Required Program Core		
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 204	Computer Applications Intermediate Accounting	1
BUSINES 205	Intermediate Accounting	3
BUSINES 208	Federal Income Tax	3
BUSINES 211	Business Law I	3
or BUSINES 214	The Legal & Social Environment of Business	
BUSINES 250	Computerized Accounting Systems	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 284	Business Communications	3
or ENGLISH 105	Business Writing	
BUSINES 141	Business Mathematics	3
CIS 123	Microcomputer Spreadsheets	3
Program Electives		
Select a minimum of 9 credit hours from the following courses or others as recommended by a College Advisor:		9
BUSINES 183	Payroll Accounting	
BUSINES 203	Intro Cost Accounting	
BUSINES 206	Auditing	
BUSINES 207	Intermediate Accounting II	
CIS 120	Introduction to Computer Applications	
CIS 145	Database Management	
PHIL 107	Ethics	
Total Hours		**60**

[1] At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Accounting. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Accounting Clerk and Associate in Applied Science Degree (AAS) in Accounting. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BUSINES 111	Introduction To Business	3
BUSINES 141	Business Mathematics	3
CIS 120	Introduction to Computer Applications [2]	3
ENGLISH 101	Composition [1]	3
CIS 123	Microcomputer Spreadsheets	3
	Hours	**15**
Semester 2		
BUSINES 211 or BUSINES 214	Business Law I or The Legal & Social Environment of Business	3
ECON 201	Principles Of Economics I [1]	3
Fine Arts & Humanities course (HD) [1]		3
MATH 118	General Education Math (Or Higher)	3-4
BUSINES 181	Financial Accounting	4
	Hours	**16-17**
Semester 3		
BUSINES 250	Computerized Accounting Systems	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 182	Managerial Accounting	4
BUSINES 284 or ENGLISH 105	Business Communications or Business Writing	3
ECON 202 or PHIL 107	Principles Of Economics II [1] or Ethics	3
	Hours	**16**
Semester 4		
BUSINES 203	Intro Cost Accounting [2]	3
CIS 145	Database Management [2]	3
BUSINES 204	Computer Applications Intermediate Accounting	1
BUSINES 205	Intermediate Accounting	3
BUSINES 208	Federal Income Tax	3
	Hours	**13**
	Total Hours	**60-61**

[1] General Education Requirement
[2] Program Elective (p. 25)

Program Elective

Associate in Applied Science Electives

Code	Title	Hours
BUSINES 183	Payroll Accounting	3
BUSINES 203	Intro Cost Accounting	3
BUSINES 206	Auditing	3
BUSINES 207	Intermediate Accounting II	3
CIS 120	Introduction to Computer Applications	3
CIS 145	Database Management	3
PHIL 107	Ethics	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bookkeeping, Accounting, and Auditing Clerks

Job Description

Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,085
Median 50th Percentile	$52,023
Senior-Level 90th Percentile	$77,945

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$25
Senior-Level 90th Percentile	$37

Annual Job Openings

2732 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	47.24%
A certificate	20.79%
Some college	4.72%
An Associate degree	8.54%
A Bachelor's degree	12.19%
A Master's or Professional degree	6.52%
A Doctoral degree or more	0.00%

18.71% continue their education beyond an associate degree

Tax Preparers

Job Description

Prepare tax returns for individuals or small businesses.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$24,046
Median 50th Percentile	$48,492
Senior-Level 90th Percentile	$178,885

Hourly Wages

Entry-Level 10th Percentile	$12
Median 50th Percentile	$23
Senior-Level 90th Percentile	$86

Annual Job Openings

94 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	36.37%
A certificate	13.64%
Some college	18.18%
An Associate degree	0.00%
A Bachelor's degree	31.82%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

31.82% continue their education beyond an associate degree

Payroll and Timekeeping Clerks

Job Description

Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,775
Median 50th Percentile	$63,919
Senior-Level 90th Percentile	$86,342

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$42

Annual Job Openings

295 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.55%
A certificate	0.00%
Some college	30.35%
An Associate degree	17.26%
A Bachelor's degree	31.84%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

31.84% continue their education beyond an associate degree

Accountants and Auditors

Job Description

Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$55,886
Median 50th Percentile	$84,169
Senior-Level 90th Percentile	$149,744

Hourly Wages

Entry-Level 10th Percentile	$27
Median 50th Percentile	$40
Senior-Level 90th Percentile	$72

Annual Job Openings

2383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	39.48%
An Associate degree	14.08%
A Bachelor's degree	43.60%
A Master's or Professional degree	2.84%
A Doctoral degree or more	0.00%

46.44% continue their education beyond an associate degree

Credit Analysts

Job Description

Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decisionmaking.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$64,847
Median 50th Percentile	$93,689
Senior-Level 90th Percentile	$188,713

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$45
Senior-Level 90th Percentile	$91

Annual Job Openings

105 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	95.00%
A Master's or Professional degree	5.00%
A Doctoral degree or more	0.00%

100.00% continue their education beyond an associate degree

Budget Analysts

Job Description

Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$64,859
Median 50th Percentile	$97,781
Senior-Level 90th Percentile	$145,654

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$47
Senior-Level 90th Percentile	$70

Annual Job Openings

26 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.57%
A certificate	0.00%
Some college	2.37%
An Associate degree	0.00%
A Bachelor's degree	77.48%
A Master's or Professional degree	7.59%
A Doctoral degree or more	0.00%

85.07% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Accounting, Basic Certificate

College(s): DA, HW, OH, TR, WR

Program Code: 0002

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
Select a minimum of 9 credit hours of the following:		9
BUSINES 111	Introduction To Business	
BUSINES 141	Business Mathematics	
BUSINES 203	Intro Cost Accounting	
BUSINES 204	Computer Applications Intermediate Accounting	
BUSINES 205	Intermediate Accounting	
BUSINES 206	Auditing	
BUSINES 208	Federal Income Tax	
BUSINES 211	Business Law I	
BUSINES 250	Computerized Accounting Systems	
CIS 120	Introduction to Computer Applications	
CIS 123	Microcomputer Spreadsheets	
CIS 145	Database Management	
CIS 158	Web Development I	
Total Hours		**17**

Pathway

This is an **example course sequence** for students interested in earning a degree in Accounting. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn aa Basic Certificate (BC) in Accounting.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BUSINES 111	Introduction To Business	3
CIS 120	Introduction to Computer Applications	3
BUSINES 181	Financial Accounting	4
	Hours	**10**
Semester 2		
BUSINES 182	Managerial Accounting	4
CIS 123	Microcomputer Spreadsheets [1]	3
	Hours	**7**
	Total Hours	**17**

[1] Program Elective (p. 28)

Basic Certificate Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
BUSINES 141	Business Mathematics	3
BUSINES 203	Intro Cost Accounting	3
BUSINES 204	Computer Applications Intermediate Accounting	1
BUSINES 205	Intermediate Accounting	3
BUSINES 206	Auditing	3
BUSINES 211	Business Law I	3
BUSINES 208	Federal Income Tax	3
BUSINES 250	Computerized Accounting Systems	3
CIS 120	Introduction to Computer Applications	3
CIS 123	Microcomputer Spreadsheets	3
CIS 145	Database Management	3
CIS 158	Web Development I	3

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Addictions Studies, Advanced Certificate

College(s): KK

Program Code: 0343

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 224	Principles and Practices of Addiction Studies	3
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 231	Addictions Treatment of Special Populations	3
SOC SER 101	Introduction To Social Work	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3
Required Work-Based Learning Courses		
MENHLTH 229	Practicum In Addictions Treatment	6
Total Hours		**37**

Pathway

This is an **example course sequence** for students interested in Addictions Studies. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) in Addictions Studies.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
MENHLTH 223	Intro To Addictions Studies	3
SOC SER 101	Introduction To Social Work	3
	Hours	**6**
Semester 2		
CHLD DV 101	Human Growth & Development I	4
MENHLTH 224	Principles and Practices of Addiction Studies	3
SOC SER 109	Report Writing for Social Service Aides	3
	Hours	**10**
Semester 3		
CHLD DV 102	Human Growth & Development II	3
MENHLTH 230	Addictions & Family Treatment	3
	Hours	**6**
Semester 4		
SOC SER 201	Principles of Social Work Practice	3
MENHLTH 231	Addictions Treatment of Special Populations	3
SOC SER 212	Introduction To Group Process	3
	Hours	**9**
Semester 5		
MENHLTH 229	Practicum In Addictions Treatment	6
	Hours	**6**
	Total Hours	**37**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Substance Abuse and Behavioral Disorder Counselors

Job Description

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
Median 50th Percentile	$63,661
Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.66%
A certificate	0.00%
Some college	0.00%
An Associate degree	23.66%
A Bachelor's degree	3.07%
A Master's or Professional degree	49.61%
A Doctoral degree or more	0.00%

52.68% continue their education beyond an associate degree

Mental Health Counselors

Job Description

Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
Median 50th Percentile	$63,661
Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.58%
A certificate	0.00%
Some college	0.00%
An Associate degree	2.43%
A Bachelor's degree	24.60%
A Master's or Professional degree	64.39%
A Doctoral degree or more	3.00%

91.99% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Addictions Studies, Associate in Applied Science

College(s): KK

Program Code: 0344

The Associate in Applied Science degree program in Addictions Studies is ideal for prospective mental health practitioners or those already working in the field who wish to receive training and credentials in Addictions Studies. Many Addictions Studies practitioners find employment in medical and non-medical detoxification centers, rehabilitation programs, community mental health centers and family service centers, halfway houses, therapeutic communities, business, or industry. Some combine counseling with such primary professions as nursing, social work, school guidance counseling, or the clergy.

The program is accredited by the Illinois Alcoholism and Other Drug Abuse Professional Certification Association (IAODAPCA).

Program Requirements

Code	Title	Hours
General Education Coursework		
Communications course		3
Fine Arts & Humanities course		3
Social and Behavioral Sciences course		3
Physical Sciences or Life Sciences course		3
Mathematics course		3
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 224	Principles and Practices of Addiction Studies	3
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 231	Addictions Treatment of Special Populations	3
PSYCH 201	General Psychology	3
PSYCH 213	Abnormal Psychology	3
SOC SER 101	Introduction To Social Work	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3
Required Work-Based Learning Courses		
MENHLTH 229	Practicum In Addictions Treatment	6
Program Electives		
Students must take 6 credit hours of electives. Courses in such fields as Education, Gerontology, Nursing, Psychology, Sociology, and Speech/Communications are valuable to primary studies in alcoholism and substance abuse. Students should meet with a College Advisor for selection of elective courses.		6
Total Hours		**64**

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in Addictions Studies. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science degree (AAS) in Addictions Studies. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MENHLTH 223	Intro To Addictions Studies	3
SOC SER 101	Introduction To Social Work	3
Fine Arts & Humanities course [1]		3
Mathematics course [1]		3
	Hours	**15**
Semester 2		
CHLD DV 101	Human Growth & Development I	4
MENHLTH 224	Principles and Practices of Addiction Studies	3
PSYCH 201	General Psychology	3
SOC SER 109	Report Writing for Social Service Aides	3
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 3		
CHLD DV 102	Human Growth & Development II	3
PSYCH 213	Abnormal Psychology	3
MENHLTH 230	Addictions & Family Treatment	3
Physical Sciences or Life Sciences course [1]		3
Program Elective [2]		3
	Hours	**15**
Semester 4		
SOC SER 201	Principles of Social Work Practice	3
MENHLTH 231	Addictions Treatment of Special Populations	3
Program Elective [2]		3
SOC SER 212	Introduction To Group Process	3
	Hours	**12**
Semester 5		
MENHLTH 229	Practicum In Addictions Treatment	6
	Hours	**6**
	Total Hours	**64**

1 General Education Requirement

2 Students must take 6 credit hours of electives. Courses in such fields as Education, Gerontology, Nursing, Psychology, Sociology, and Speech/Communications are valuable to primary studies in alcoholism and substance abuse. Students should meet with a College Advisor for selection of elective courses.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Mental Health Counselors

Job Description

Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
Median 50th Percentile	$63,661
Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.58%
A certificate	0.00%
Some college	0.00%
An Associate degree	2.43%
A Bachelor's degree	24.60%
A Master's or Professional degree	64.39%
A Doctoral degree or more	3.00%

91.99% continue their education beyond an associate degree

Substance Abuse and Behavioral Disorder Counselors

Job Description

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Entry-Level 10th Percentile	$44,382
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Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
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Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.66%
A certificate	0.00%
Some college	0.00%
An Associate degree	23.66%
A Bachelor's degree	3.07%
A Master's or Professional degree	49.61%
A Doctoral degree or more	0.00%

52.68% continue their education beyond an associate degree

Addictions Studies, Basic Certificate

College(s): KK, WR

Program Code: 0345

This Basic Certificate program in Addictions Studies provides students with the academic requirements needed in the application for the Certified Alcohol and Other Drugs Counselor (CADC) examination.

Program Requirements

Code	Title	Hours
Required Progam Core		
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 224	Principles and Practices of Addiction Studies	3
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 231	Addictions Treatment of Special Populations	3
Required Work-Based Learning Courses		
MENHLTH 229	Practicum In Addictions Treatment	6
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in Addictions Studies. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Addictions Studies.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MENHLTH 223	Intro To Addictions Studies	3
	Hours	**3**
Semester 2		
MENHLTH 224	Principles and Practices of Addiction Studies	3
	Hours	**3**
Semester 3		
MENHLTH 230	Addictions & Family Treatment	3
	Hours	**3**
Semester 4		
MENHLTH 231	Addictions Treatment of Special Populations	3
	Hours	**3**
Semester 5		
MENHLTH 229	Practicum In Addictions Treatment	6
	Hours	**6**
	Total Hours	**18**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Mental Health Counselors

Job Description

Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
Median 50th Percentile	$63,661
Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.58%
A certificate	0.00%
Some college	0.00%
An Associate degree	2.43%
A Bachelor's degree	24.60%
A Master's or Professional degree	64.39%
A Doctoral degree or more	3.00%

91.99% continue their education beyond an associate degree

Substance Abuse and Behavioral Disorder Counselors

Job Description

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
Median 50th Percentile	$63,661
Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.66%
A certificate	0.00%
Some college	0.00%
An Associate degree	23.66%
A Bachelor's degree	3.07%
A Master's or Professional degree	49.61%
A Doctoral degree or more	0.00%

52.68% continue their education beyond an associate degree

Advanced Social Services - Addictions Studies, Advanced Certificate

College(s): KK

Program Code: 0411

The Advanced Social Services–Addiction Studies certificate is ideal for prospective mental health practitioners or those already working in the field who wish to receive training and credentials in Social Services–Addiction Studies. Career possibilities include counselors, social workers, probation officers and correctional treatment specialists, and substance abuse and behavioral disorder counselors.

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 228	Social Work with Families : Evidence Based Practice	3
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 224	Principles and Practices of Addiction Studies	3
MENHLTH 228	Principles of Mental Health Practices (remove as required)	3
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 231	Addictions Treatment of Special Populations	3
Required Work-Based Learning Courses		
SOC SER 229	Social Service Practicum	6
SOC SER 230	Introduction to Domestic Violence	3
MENHLTH 229	Practicum In Addictions Treatment	6
Total Hours		**49**

Pathway

This is an example course sequence for students interested in earning an advanced certificate in Social Services–Addiction Studies. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate in Advanced Social Services–Addiction Studies which may include a Domestic Violence and/or Anger Management/Conflict Resolution Certification.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MENHLTH 223	Intro To Addictions Studies	3
SOC SER 215	Social Prob & Soc Action I	3
CHLD DV 101	Human Growth & Development I	4
	Hours	**10**
Semester 2		
MENHLTH 224	Principles and Practices of Addiction Studies	3
SOC SER 212	Introduction To Group Process	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 109	Report Writing for Social Service Aides	3
	Hours	**12**
Semester 3		
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 228	Principles of Mental Health Practices	3
	Hours	**6**
Semester 4		
SOC SER 228	Social Work with Families : Evidence Based Practice	3

MENHLTH 231	Addictions Treatment of Special Populations	3
SOC SER 229	Social Service Practicum	6
	Hours	**12**
Semester 5		
MENHLTH 229	Practicum In Addictions Treatment	6
SOC SER 230	Introduction to Domestic Violence	3
	Hours	**9**
	Total Hours	**49**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Mental Health Counselors

Job Description

Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
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Senior-Level 90th Percentile	$119,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.58%
A certificate	0.00%
Some college	0.00%
An Associate degree	2.43%
A Bachelor's degree	24.60%
A Master's or Professional degree	64.39%
A Doctoral degree or more	3.00%

91.99% continue their education beyond an associate degree

Substance Abuse and Behavioral Disorder Counselors

Job Description

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Annual Job Openings

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A certificate	0.00%
Some college	0.00%
An Associate degree	23.66%
A Bachelor's degree	3.07%
A Master's or Professional degree	49.61%
A Doctoral degree or more	0.00%

52.68% continue their education beyond an associate degree

Advanced Social Services - Addictions Studies, Associate in Applied Science

College(s): KK

Program Code: 0410

The AAS degree in Advanced Social Services–Addictions Studies is ideal for prospective mental health practitioners, or those already working in the field that wish to advance their knowledge in the core competencies of both addictions studies and social work. The program will focus on the generalist's approach to counseling, training, and industry credentialing in addictions studies and social work, with emphasis on the practices of working with individuals, families, groups, and communities. Many mental health/social work practitioners find employment in medical and non-medical detoxification centers, rehabilitation programs, community mental health centers, family service centers, halfway house, hospitals, therapeutic communities, business, and other industries. Some mental health professionals combine counseling with such primary professions such as nursing, social work, school guidance counseling, or clergy.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
MATH 125	Introductory Statistics	3
or BIOLOGY 107	Nutrition-Consumer Education	
PSYCH 201	General Psychology	3
or SOC 201	Intro To the Study Of Society	
AFRO AM 101	Introduction to African-American Studies (HD)	3
or HUM 212	Non-Western Humanities	
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
SOC SER 101	Introduction To Social Work	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 228	Social Work with Families : Evidence Based Practice	3
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 224	Principles and Practices of Addiction Studies	3
MENHLTH 230	Addictions & Family Treatment	3
MENHLTH 231	Addictions Treatment of Special Populations	3
Required Work-Based Learning Courses		
SOC SER 229	Social Service Practicum	6
MENHLTH 229	Practicum In Addictions Treatment	6
Program Electives		
SOC SER 230	Introduction to Domestic Violence	3
MENHLTH 228	Principles of Mental Health Practices	3
Total Hours		**70**

Pathway

This is an **example course sequence** for students interested in earning an Associate in Applied Science degree in Social Services–Addiction Studies. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate and Associate in Applied Science degree in Advanced Social Services–Addiction Studies which may include a Domestic Violence and/or Anger Management/Conflict Resolution Certification.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
SOC SER 101	Introduction To Social Work	3
MENHLTH 223	Intro To Addictions Studies	3
SOC SER 215	Social Prob & Soc Action I	3
CHLD DV 101	Human Growth & Development I	4
	Hours	**16**
Semester 2		
MENHLTH 224	Principles and Practices of Addiction Studies	3
SOC SER 212	Introduction To Group Process	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 109	Report Writing for Social Service Aides	3
ENGLISH 102	Composition [1]	3
	Hours	**15**
Semester 3		
MENHLTH 230	Addictions & Family Treatment	3
CHLD DV 102	Human Growth & Development II	3
MENHLTH 228	Principles of Mental Health Practices [2]	3
AFRO AM 101 or HUM 212	Introduction to African-American Studies (HD) [1] or Non-Western Humanities	3
PSYCH 201 or SOC 201	General Psychology [1] or Intro To the Study Of Society	3
	Hours	**15**
Semester 4		
SOC SER 228	Social Work with Families : Evidence Based Practice	3
MENHLTH 231	Addictions Treatment of Special Populations	3
SOC SER 229	Social Service Practicum	6
MATH 125 or BIOLOGY 107	Introductory Statistics [1] or Nutrition-Consumer Education	3
	Hours	**15**
Semester 5		
MENHLTH 229	Practicum In Addictions Treatment	6
SOC SER 230	Introduction to Domestic Violence [2]	3
	Hours	**9**
	Total Hours	**70**

[1] General Education Requirement
[2] Program Elective

Choose your courses with your College Advisor.

Careers

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Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,382
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Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$31
Senior-Level 90th Percentile	$58

Annual Job Openings

1168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.58%
A certificate	0.00%
Some college	0.00%
An Associate degree	2.43%
A Bachelor's degree	24.60%
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91.99% continue their education beyond an associate degree

Substance Abuse and Behavioral Disorder Counselors

Job Description

Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

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An Associate degree	23.66%
A Bachelor's degree	3.07%
A Master's or Professional degree	49.61%
A Doctoral degree or more	0.00%

52.68% continue their education beyond an associate degree

Air Conditioning - Commercial Refrigeration, Basic Certificate

College(s): KK

Program Code: 0153

The Basic Certificate in Commercial Refrigeration studies the design, selection, maintenance, testing and installation of commercial refrigeration systems, and business skills.

Program Requirements

Code	Title	Hours
Required Program Core		
AIR CON 102	Intro Air Conditioning II	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 151	Commercial Refrigeration	3
AIR CON 157	Analysis Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
MATH 107	Math For Technicians I	4
Total Hours		**17**

Pathway

This is an **example course sequence** for students interested in pursuing Air Conditioning and Refrigeration. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Commercial Refrigeration.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 107	Math For Technicians I	4
	Hours	**4**
Semester 2		
AIR CON 102	Intro Air Conditioning II	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 151	Commercial Refrigeration	3
	Hours	**9**
Semester 3		
AIR CON 157	Analysis Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
	Hours	**4**
	Total Hours	**17**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Job Description

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,808
Median 50th Percentile	$72,410
Senior-Level 90th Percentile	$123,966

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$60

Annual Job Openings

314 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.49%
A certificate	68.08%
Some college	6.93%
An Associate degree	1.50%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Air Conditioning - Domestic Refrigeration, Basic Certificate

College(s): KK

Program Code: 0177

The Basic Certificate in Domestic Refrigeration studies the design, selection, maintenance, testing and installation of residential refrigeration systems.

Program Requirements

Code	Title	Hours
Required Program Core		
AIR CON 101	Intro Air Conditioning I	3
AIR CON 102	Intro Air Conditioning II	3
AIR CON 120	Introductory Laboratory	2
AIR CON 150	Intro To Refrigeration	3
AIR CON 155	Refrigeration Laboratory	2
MATH 107	Math For Technicians I	4
Total Hours		**17**

Pathway

This is an **example course sequence** for students interested in pursuing Air Conditioning and Refrigeration. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Domestic Refrigeration.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AIR CON 120	Introductory Laboratory	2
AIR CON 101	Intro Air Conditioning I	3
AIR CON 150	Intro To Refrigeration	3
MATH 107	Math For Technicians I	4
	Hours	**12**
Semester 2		
AIR CON 102	Intro Air Conditioning II	3
	Hours	**3**
Semester 3		
AIR CON 155	Refrigeration Laboratory	2
	Hours	**2**
	Total Hours	**17**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Job Description

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Entry-Level 10th Percentile	$42,808
Median 50th Percentile	$72,410
Senior-Level 90th Percentile	$123,966

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$60

Annual Job Openings

314 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.49%
A certificate	68.08%
Some college	6.93%
An Associate degree	1.50%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Air Conditioning - Heating, Basic Certificate

College(s): KK

Program Code: 0178

The Basic Certificate in Heating studies the design, selection, maintenance, testing and installation of residential, commercial Heating systems, and business skills.

Program Requirements

Code	Title	Hours
Required Program Core		
AIR CON 101	Intro Air Conditioning I	3
AIR CON 103	Duct Design And Layout	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 160	Intro to Principles of Heating	3
AIR CON 165	Heating Laboratory	2
MATH 107	Math For Technicians I	4
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing Air Conditioning and Refrigeration. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Heating.

Semester-by-Semester Program Plan for Full-Time Student

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AIR CON 101	Intro Air Conditioning I	3
MATH 107	Math For Technicians I	4
	Hours	**7**
Semester 2		
AIR CON 105	Owner-Contractor Management	3
AIR CON 160	Intro to Principles of Heating	3
	Hours	**6**
Semester 3		
AIR CON 103	Duct Design And Layout	3
AIR CON 165	Heating Laboratory	2
	Hours	**5**
	Total Hours	**18**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Job Description

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,808
Median 50th Percentile	$72,410
Senior-Level 90th Percentile	$123,966

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$60

Annual Job Openings

314 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.49%
A certificate	68.08%
Some college	6.93%
An Associate degree	1.50%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Air Conditioning and Refrigeration, Advanced Certificate

College(s): KK

Program Code: 0118

The Advanced Certificate program in Air Conditioning and Refrigeration studies the design, selection, maintenance, testing and installation of residential and commercial air conditioning, refrigeration, heating, and ventilation systems with emphasis on business skills. No General Education or elective courses are required for this program.

Program Requirements

Code	Title	Hours
Required Program Core		
AIR CON 101	Intro Air Conditioning I	3
AIR CON 102	Intro Air Conditioning II	3
AIR CON 103	Duct Design And Layout	3
AIR CON 104	Equipment and Systems Controls	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 120	Introductory Laboratory	2
AIR CON 150	Intro To Refrigeration	3
AIR CON 151	Commercial Refrigeration	3
AIR CON 155	Refrigeration Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
AIR CON 160	Intro to Principles of Heating	3
AIR CON 165	Heating Laboratory	2
AIR CON 204	Advanced Control Systems	3
MATH 107	Math For Technicians I	4
Total Hours		**39**

Pathway

This is an example course sequence for students interested in pursuing Air Conditioning and Refrigeration. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificates (BCs) in Domestic Refrigeration and Heating and an Advanced Certificate (AC) in Air Conditioning and Refrigeration.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
AIR CON 104	Equipment and Systems Controls	3
AIR CON 150	Intro To Refrigeration	3
AIR CON 160	Intro to Principles of Heating	3
MATH 107	Math For Technicians I	4
	Hours	**13**
Semester 2		
AIR CON 101	Intro Air Conditioning I	3
AIR CON 102	Intro Air Conditioning II	3
AIR CON 120	Introductory Laboratory	2
AIR CON 151	Commercial Refrigeration	3
AIR CON 165	Heating Laboratory	2
	Hours	**13**
Semester 3		
AIR CON 103	Duct Design And Layout	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 155	Refrigeration Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
AIR CON 204	Advanced Control Systems	3
	Hours	**13**
	Total Hours	**39**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Job Description

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,808
Median 50th Percentile	$72,410
Senior-Level 90th Percentile	$123,966

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$60

Annual Job Openings

314 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.49%
A certificate	68.08%
Some college	6.93%
An Associate degree	1.50%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Air Conditioning and Refrigeration, Associate in Applied Science

College(s): KK

Program Code: 0117

The Associate in Applied Science degree in Air Conditioning and Refrigeration studies the design, selection, maintenance, testing and installation of residential and commercial air conditioning, refrigeration and heating and ventilation systems, and business skills. The degree can lead to self-employment or employment as an assistant to engineers in an industrial or business facility, air conditioning and refrigeration mechanic, furnace installer, oil burner mechanic or a gas furnace mechanic with cooling and heating dealers, contractors, or utility companies.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		12
Required Program Core		
AIR CON 101	Intro Air Conditioning I	3
AIR CON 102	Intro Air Conditioning II	3
AIR CON 103	Duct Design And Layout	3
AIR CON 104	Equipment and Systems Controls	3
AIR CON 105	Owner-Contractor Management	3
AIR CON 120	Introductory Laboratory	2
AIR CON 150	Intro To Refrigeration	3
AIR CON 151	Commercial Refrigeration	3
AIR CON 155	Refrigeration Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
AIR CON 160	Intro to Principles of Heating	3
AIR CON 165	Heating Laboratory	2
AIR CON 204	Advanced Control Systems	3
MATH 107	Math For Technicians I (or Advanced Mathematics course)	4
Program Electives		
Select a minimum of 7 credit hours of the following:		7
AIR CON 106	Sheet Metal I	
AIR CON 107	Welding I	
AIR CON 121	Advanced Laboratory	
AIR CON 156	Domestic Refrigeration Laboratory	
Total Hours		**61**

1 Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social & Behavioral Sciences, or Physical & Life Sciences.

2 At least one course must meet the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in pursuing Air Conditioning and Refrigeration. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BCs) in Commercial Refrigeration, Domestic Refrigeration, and Heating, and an Advanced Certificate and an Associate in Applied Science (AAS) degree in Air Conditioning and Refrigeration. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AIR CON 104	Equipment and Systems Controls	3
AIR CON 150	Intro To Refrigeration	3
AIR CON 160	Intro to Principles of Heating	3
MATH 107	Math For Technicians I	4
AIR CON 106 or AIR CON 107	Sheet Metal I [2] or Welding I	3
	Hours	**16**
Semester 2		
Mathematics or Life Sciences or Physical Sciences course [1]		3
ENGLISH 101	Composition [1]	3
AIR CON 101	Intro Air Conditioning I	3
AIR CON 102	Intro Air Conditioning II	3
AIR CON 151	Commercial Refrigeration	3
AIR CON 165	Heating Laboratory	2
	Hours	**17**
Semester 3		
AIR CON 103	Duct Design And Layout	3
AIR CON 120	Introductory Laboratory	2
AIR CON 204	Advanced Control Systems	3
Social and Behavioral Sciences course (HD) [1]		3
AIR CON 107 or AIR CON 121	Welding I [2] or Advanced Laboratory	2-3
	Hours	**13-14**
Semester 4		
Fine Arts & Humanities course [1]		3
Social and Behavioral Sciences course (HD) [1]		3
AIR CON 105	Owner-Contractor Management	3
AIR CON 155	Refrigeration Laboratory	2
AIR CON 158	Commercial Refrigeration Laboratory	2
AIR CON 107 or AIR CON 121	Welding I [2] or Advanced Laboratory	2-3
	Hours	**15-16**
	Total Hours	**61-63**

[1] General Education Requirements
[2] Program Elective (p. 51) (minimum 7 hours total)

Program ElectiveS

Associate in Applied Science Electives

Code	Title	Hours
AIR CON 106	Sheet Metal I	3
AIR CON 107	Welding I	3
AIR CON 121	Advanced Laboratory	2
AIR CON 156	Domestic Refrigeration Laboratory	2

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Job Description

Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,808
Median 50th Percentile	$72,410
Senior-Level 90th Percentile	$123,966

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$60

Annual Job Openings

314 annual openings in Cook County

National Education Attainment

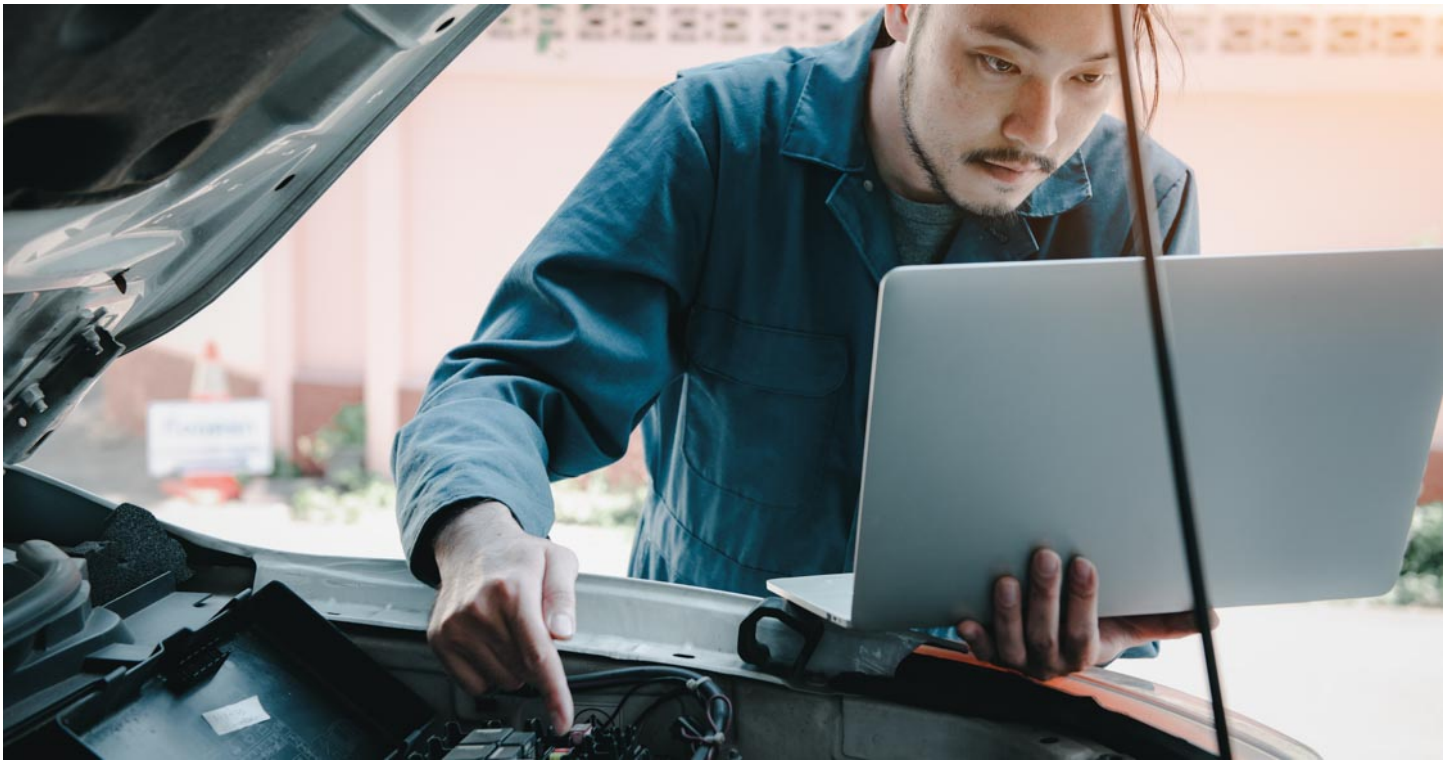
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	23.49%
A certificate	68.08%
Some college	6.93%
An Associate degree	1.50%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Alternative Fuel Vehicle Technology, Basic Certificate



College(s): KK*, OH*

Program Code: 0099

The AFVT Program has been designed to prepare students to apply their skills and knowledge to correctly diagnose and repair alternative fuel vehicles such as hybrid power units in accordance with manufacturer's specifications. The AFVT program will also give emergency response, auto insurance and salvage yard personnel working knowledge to safely perform their tasks when working on or inspecting hybrid fuel vehicles. This program will also prepare automotive technicians and instructors to sit for the Automotive Service Excellence (ASE) Advanced Engine Performance examination.

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 130	Topics in Alternative Fuel Technology	3
AUTOTEC 230	Introduction to Alternative Fuel Technology	4
AUTOTEC 231	AFT Hybrid Fuel Vehicles	4
AUTOTEC 232	Hybrid and Fuel Cell Vehicles	5
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in Alternative Fuel Vehicle Technology (AFVT). It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AUTOTEC 101	Automotive Maintenance and Light Repair [1]	4
AUTOTEC 104	Electrical Systems I [1]	4
	Hours	**8**
Semester 2		
AUTOTEC 105	Fuel Management 1 [1]	4
AUTOTEC 204	Electrical Systems II [1]	4
	Hours	**8**
Semester 3		
AUTOTEC 205	Fuel Management II [1]	4
	Hours	**4**
Semester 4		
AUTOTEC 206	Fuel Management III [1]	4
	Hours	**4**
Semester 5		
AUTOTEC 130	Topics in Alternative Fuel Technology	3
AUTOTEC 230	Introduction to Alternative Fuel Technology	4

AUTOTEC 231	AFT Hybrid Fuel Vehicles	4
AUTOTEC 232	Hybrid and Fuel Cell Vehicles	5
	Hours	**16**
	Total Hours	**40**

[1] Program Prerequisite

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Service Technicians and Mechanics

Job Description

Diagnose, adjust, repair, or overhaul automotive vehicles.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,560
Median 50th Percentile	$51,658
Senior-Level 90th Percentile	$87,599

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$25
Senior-Level 90th Percentile	$42

Annual Job Openings

853 annual openings in Cook County

National Education Attainment

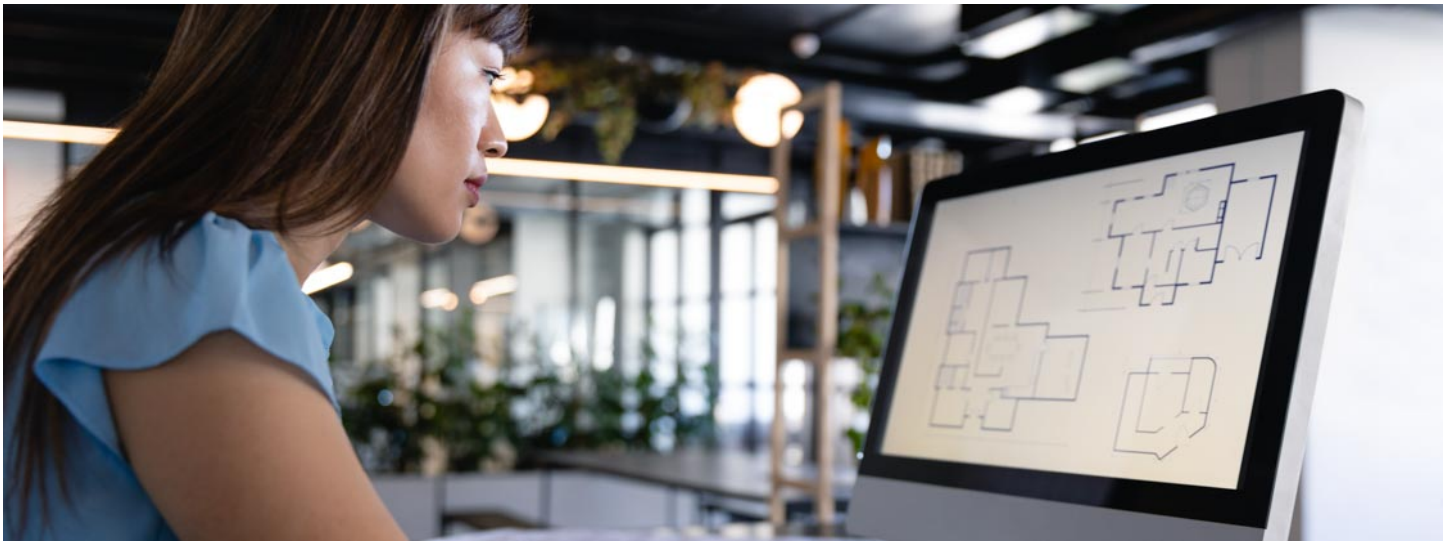
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.60%
A certificate	50.25%
Some college	5.78%
An Associate degree	1.37%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Architectural Digital Media, Basic Certificate



College(s): HW, WR*

Program Code: 0132

**As of Spring 2021, this program is no longer accepting new students at Wright College.*

Prepare detailed drawings of architectural designs and plans for buildings and structures according to specifications provided by architect.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
ARCHITC 170	Digital Lab I	3
ARCHITC 171	Digital Lab II	3
ARCHITC 172	Digital Lab III	3
Total Hours		**9**

Pathway

This is an **example course sequence** for students interested in earning a certificate in Architectural Digital Media. If this pathway is followed as outlined, you will earn a Basic Certificate (BC). It does not represent a contract, nor does it guarantee course availability.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ARCHITC 170	Digital Lab I	3
	Hours	**3**
Semester 2		
ARCHITC 171	Digital Lab II	3
ARCHITC 172	Digital Lab III	3
	Hours	**6**
	Total Hours	**9**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Architecture, Associate in Applied Science

College(s): HW, WR*

Program Code: 0122

**As of Spring 2021, this program is no longer accepting new students at Wright College.*

The Associate in Applied Science degree in Architecture prepares students for employment as a draftsman or detailer with an architecture or design firm or as a contractor, material supplier or with a construction company. Completion of the degree also leads to the further study of architecture and related fields at several transfer destinations.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Mathematics/Physical Sciences/Life Sciences		3
Humanities [1]		3
Social and Behavioral Sciences		3
ARCHITC 104	History Of Architecture I	3
Required Program Core		
ARCHITC 105	History Of Architecture II	3
ARCHITC 110	Architectural Sketching	2
ARCHITC 121	Basic Design Studio	4
ARCHITC 122	Intermediate Design Studio	4
ARCHITC 123	Advanced Design Studio	4
ARCHITC 166	Architectural Design I	4
ARCHITC 170	Digital Lab I	3
ARCHITC 171	Digital Lab II	3
ARCHITC 172	Digital Lab III	3
ARCHITC 202	Construction I	4
ARCHITC 204	Construction II	4
ARCHITC 220	Portfolio Development	2
ARCHITC 266	Architectural Design II	4
Select a minimum of 5 credit hours of the following:		5
MATH 140 & MATH 141	College Algebra and Plane Trigonometry	
MATH 143	Pre Calculus	
MATH 204	Calculus For Business & Social Sciences	
MATH 207	Calculus & Analytic Geometry I	
Program Electives		
Select one of the following:		3
ARCHITC 230	Structural Fundamentals	
General Education Elective		
Total Hours		**67**

[1] Course must have an IAI GECC code (p. 599) beginning with H or HF

Pathway

This is an **example course sequence** for students interested in pursuing Architecture. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate in Architectural Digital Media, a Basic Certificate in Architecture and an Associate in Applied Science degree in Architecture. One course must satisfy the Human Diversity (HD) requirement.

Semester-by-Semester Program Plan for Full-Time Students at Harold Washington College

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ARCHITC 121	Basic Design Studio	4
ARCHITC 170	Digital Lab I	3
ARCHITC 110	Architectural Sketching	2
ENGLISH 101	Composition [1]	3
MATH 140	College Algebra	4
	Hours	**16**
Semester 2		
ARCHITC 122	Intermediate Design Studio	4
ARCHITC 171	Digital Lab II	3
ARCHITC 123	Advanced Design Studio	4
MATH 141	Plane Trigonometry	3
Social and Behavioral Sciences course [1,2]		3
	Hours	**17**
Semester 3		
ARCHITC 104	History Of Architecture I [1]	3
ARCHITC 172	Digital Lab III	3
ARCHITC 202	Construction I	4
Mathematics/Physical Sciences/Life Sciences course [1,2]		3-5
ARCHITC 166	Architectural Design I	4
	Hours	**17-19**
Semester 4		
ARCHITC 105	History Of Architecture II	3
ARCHITC 220	Portfolio Development	2
ARCHITC 204	Construction II	4
ARCHITC 266	Architectural Design II	4
Fine Arts & Humanities courses [1,2]		3
Select one of the following: [3]		3
ARCHITC 230	Structural Fundamentals	
General Education course [2]		
	Hours	**19**
	Total Hours	**69-71**

1 General Education Requirement
2 Confer with intended transfer destination
3 Program Elective

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Full-Time Students at Wright College

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ARCHITC 121	Basic Design Studio	4
ARCHITC 170	Digital Lab I	3
ARCHITC 110	Architectural Sketching	2
ENGLISH 101	Composition [1]	3
Social and Behavioral Sciences course [1]		3
	Hours	**15**
Semester 2		
ARCHITC 122	Intermediate Design Studio	4
ARCHITC 166	Architectural Design I	4
ARCHITC 171	Digital Lab II	3
MATH 143	Pre Calculus	6
	Hours	**17**
Semester 3		
ARCHITC 104	History Of Architecture I [1]	3
ARCHITC 123	Advanced Design Studio	4
ARCHITC 172	Digital Lab III	3
ARCHITC 202	Construction I	4
Mathematics/Physical Sciences/Life Sciences course [1,2]		3-5
	Hours	**17-19**
Semester 4		
ARCHITC 105	History Of Architecture II	3
ARCHITC 220	Portfolio Development	2
ARCHITC 204	Construction II	4
ARCHITC 266	Architectural Design II	4
Fine Arts & Humanities courses [1,2]		3
Select one of the following: [3]		3
ARCHITC 230	Structural Fundamentals	
General Education course [2]		
	Hours	**19**
	Total Hours	**68-70**

1 General Education Requirement
2 Confer with intended transfer destination
3 Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

Architecture, Basic Certificate

College(s): HW, WR*

Program Code: 0124

**As of Spring 2021, this program is no longer accepting new students at Wright College.*

Architecture, BC

Program Requirements

Code	Title	Hours
Required Program Core		
ARCHITC 110	Architectural Sketching	2
ARCHITC 121	Basic Design Studio	4
ARCHITC 122	Intermediate Design Studio	4
ARCHITC 123	Advanced Design Studio	4
ARCHITC 170	Digital Lab I	3
ARCHITC 171	Digital Lab II	3
Total Hours		**20**

Pathway

This is an **example course sequence** for students interested in pursuing Architecture. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate in Architecture.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ARCHITC 110	Architectural Sketching	2
ARCHITC 121	Basic Design Studio	4
ARCHITC 170	Digital Lab I	3
	Hours	**9**
Semester 2		
ARCHITC 122	Intermediate Design Studio	4
ARCHITC 123	Advanced Design Studio	4
ARCHITC 171	Digital Lab II	3
	Hours	**11**
	Total Hours	**20**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

Art (Studio), Associate in Fine Arts

College(s): HW, TR, WR

Program Code: 0216

The Art (Studio) AFA degree offers courses required for transfer to a four-year institution for students majoring in art (studio). Completion of the AFA degree does not fulfill the requirements of the Illinois Transferable General Education Core Curriculum (IAI GECC). A student must complete the general education requirements of the college or university to which they transfer.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math	4
or MATH 125	Introductory Statistics	
Two Physical Sciences & Life Sciences courses [1]		6
Two Social and Behavioral Sciences courses [2]		6
Two Fine Arts & Humanities courses [2,3]		6
Required Program Core		
ART 131	General Drawing	3
ART 132	Advanced General Drawing	3
ART 142	Figure Draw & Composition	3
ART 144	Two Dimensional Design	3
ART 145	Three Dimensional Design	3
FIN ART 107	History of Architecture, Painting & Sculpture I	3
FIN ART 108	Hist Of Arch Paint Sculp II	3
Program Electives		
Select a minimum of 9 credit hours of the following:		9
ART 113	Beginning Digital Photography	
ART 115	Beginning Darkroom Photography	
ART 116	Intermediate Black and White Photography	
ART 117	Beginning Color Photography	
ART 126	Printmaking I	
ART 127	Printmaking II	
ART 143	Advanced Figure Drawing	
ART 163	Water Color Painting	
ART 166	Oil Painting Techniques	
ART 167	Advanced Oil Painting Techniques	
ART 196	Ceramics	
ART 197	Advanced Ceramics & Sculpture	
ART 198	Sculpture I	
ART 213	Intermediate Digital Photography	
ART 275	Computer Art And Applications	
Total Hours		**61**

1 Minimum one course each in Physical & Life Sciences; one course must be a lab.
2 One course from Social and Behavioral Sciences or Fine Arts and Humanities must fulfill the Human Diversity (HD) requirement.
3 One course must fulfil the Humanities or Interdisciplinary Humanities GECC requirement.

Pathway

This is an **example course sequence** for students interested in pursuing Studio Art. If this pathway is followed as outlined, you will earn an Associate in Fine Arts degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Courses may be substituted within the indicated categories (except Communications courses).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
ART 144	Two Dimensional Design	3
ART 145	Three Dimensional Design	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
ART 103	Art Appreciation [1]	3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
Art (Studio) recommended elective (p. 62) [2]		3
Physical Sciences course - no Lab [1]		3
FIN ART 107	History of Architecture, Painting & Sculpture I	3
ART 131	General Drawing	3
	Hours	**15**
Semester 3		
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Life Sciences course with lab [1]		4
Social and Behavioral Sciences course [1]		3
ART 132	Advanced General Drawing	3
ART 142	Figure Draw & Composition	3
	Hours	**17**
Semester 4		
Social and Behavioral Sciences course (HD) [1]		3
Fine Arts & Humanities course [1]		3
Art (Studio) recommended elective (p. 62) [2]		3
Art (Studio) recommended elective (p. 62) [2]		3
FIN ART 108	Hist Of Arch Paint Sculp II	3
	Hours	**15**
	Total Hours	**62**

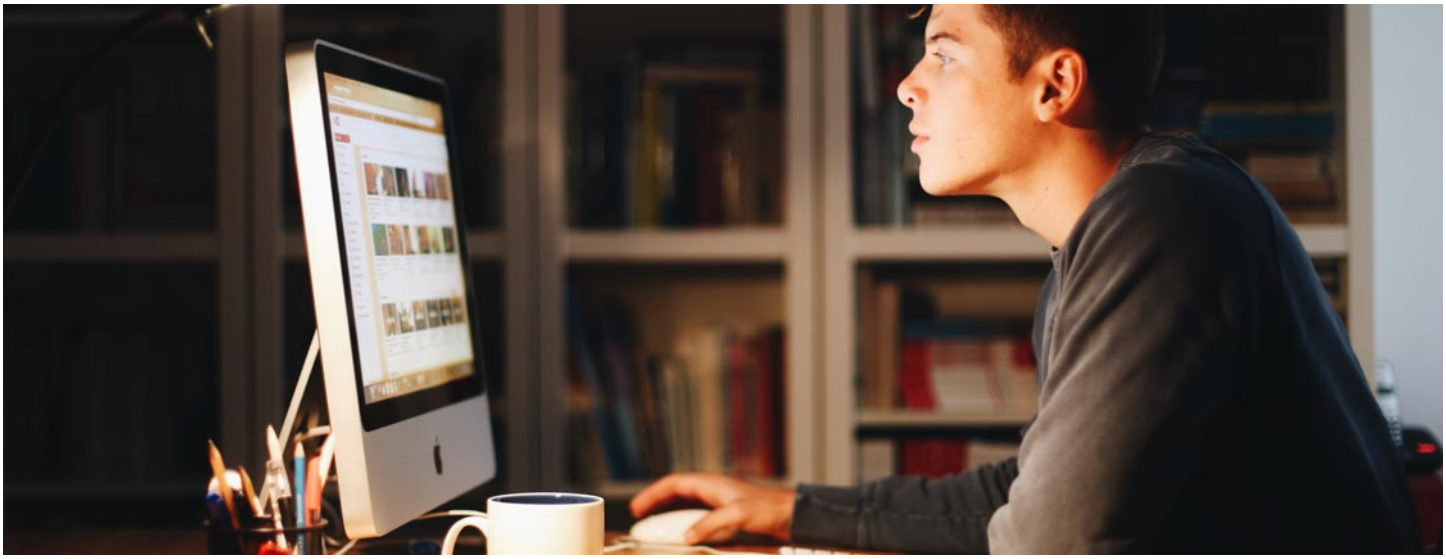
[1] General Education Requirement
[2] Program Elective (p. 62)

Choose your courses with your College Advisor.

Program Electives

Code	Title	Hours
ART 113	Beginning Digital Photography	3
ART 115	Beginning Darkroom Photography	3
ART 116	Intermediate Black and White Photography	3
ART 117	Beginning Color Photography	3
ART 126	Printmaking I	3
ART 127	Printmaking II	3
ART 143	Advanced Figure Drawing	3
ART 163	Water Color Painting	3
ART 166	Oil Painting Techniques	3
ART 167	Advanced Oil Painting Techniques	3
ART 196	Ceramics	3
ART 197	Advanced Ceramics & Sculpture	3
ART 198	Sculpture I	3
ART 213	Intermediate Digital Photography	3
ART 275	Computer Art And Applications	3

Associate in Arts



College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

The Associate in Arts (AA) degree prepares an individual for transfer to a four-year college or university. Consistent with the IAI model and the ICCB Administrative Rules, City Colleges of Chicago requires that the degree is inclusive of a minimum of 37 semester hours of General Education.

For students who want to earn an associate degree before transferring to a four-year institution, the Associate in Arts degree (AA) is the traditional choice for most students. The AA degree indicates a student has mastered the basics of higher education. Depending on the courses selected (p. 599) for the General Education requirements, this degree plan provides you with the IAI General Education Core Curriculum (GECC). In addition, you will select elective classes (23 credit hours).

Students are required to take at least one course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate in Arts degree.

To learn more about transferring to a four-year college or university, visit CCC's transfer site. (https://pages.ccc.edu/apply/transfer/)

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Mathematics		3
Fine Arts & Humanities [1]		9
Social and Behavioral Sciences		9
Physical Sciences & Life Sciences [2]		7
AA Electives		
Students should work with a College Advisor to select appropriate core and elective courses or select an AA semester map as a guide.		23
Total Hours		**60**

[1] At least one (1) of the courses must be from the Fine Arts category, and at least one (1) must be from the Humanities category.

[2] At least one (1) of the courses must be from the Physical Sciences category, and at least one (1) must be from the Life Sciences category. At least one (1) lab course is required.

At least one course must meet the Human Diversity (HD) requirement.

AA Transfer Pathways

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

- Accounting, Associate in Arts (p. 481)
- Business/Economics, Associate in Arts (p. 492)
- Business/Finance, Associate in Arts (p. 494)
- Child Development: Early Childhood Education, Associate in Arts (p. 501)
- Communications, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/communications-associate-arts/)
- Community Leadership, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/community-leadership-associate-arts/)
- Comparative Religion, Associate in Arts (p. 504)
- Creative and Publishable Writing, Associate in Arts (p. 509)
- Criminal Justice, Associate in Arts (p. 511)
- Dance, Associate in Arts (p. 513)
- Elementary Education, Associate in Arts (p. 515)

- English Education, Associate in Arts (p. 520)
- English, Associate in Arts (p. 522)
- French Education, Associate in Arts (p. 527)
- Gender, Women's, and Sexuality Studies: Culture, Arts, Representation, and Empowerment, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/gender-womens-and-sexuality-studies-associate-arts/)
- Gender, Women's, and Sexuality Studies: Social Justice and Policy, Associate in Arts (p. 530)
- History, Associate in Arts (p. 536)
- Human Development and Family Studies, Associate in Arts (p. 538)
- Human Geography, Associate in Arts (p. 540)
- Insurance, Associate in Arts (p. 543)
- International Studies, Associate in Arts (p. 545)
- Journalism, Associate in Arts (p. 547)
- Latin American and Latin@ Studies, Associate in Arts (p. 549)
- Music (General), Associate in Arts (p. 557)
- Philosophy, Associate in Arts (p. 560)
- Photography, Associate in Arts (p. 562)
- Physical Education, Associate in Arts (p. 564)
- Political Science, Associate in Arts (p. 569)
- Psychology, Associate in Arts (p. 572)
- Social Science Education, Associate in Arts (p. 574)
- Social Work, Associate in Arts (p. 576)
- Sociology, Associate in Arts (p. 577)
- Spanish Education, Associate in Arts (p. 579)
- Special Education, Associate in Arts (p. 581)
- Theater Art, Associate in Arts (p. 584)
- Urban Science, Associate in Arts (p. 586)
- Urban Studies, Associate in Arts (p. 587)
- World Languages, Associate in Arts (p. 590)

Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

The Associate in Engineering Science (AES) degree offers courses required for transfer to a four-year college or university for students majoring in engineering sciences. Completion of the AES degree does not fulfill the requirements of the IAI General Education Core Curriculum (IAI GECC). City Colleges of Chicago requires that the degree is inclusive of a minimum of 22 semester hours of General Education. A student must complete the general education requirements of the college or university to which she/he transfers.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
MATH 207	Calculus & Analytic Geometry I	5
CHEM 201	General Chemistry I	5
One Fine Arts & Humanities course [1]		3
One Social and Behavioral Sciences course [1]		3
Required Degree Core		
ENGR 190	Computer Programming for Engineers	3
or CIS 142	C++ Object Oriented Programming I	
MATH 208	Calculus & Analytic Geometry II	5
MATH 209	Calculus & Analytic Geometry III	5
MATH 210	Differential Equations	3
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
Program Electives		
Select a minimum of 16 credit hours of program electives (p. 65)		16
Total Hours		**64**

[1] One of the courses in the Humanities or Social and Behavioral Sciences category must satisfy the Human Diversity requirement.

Program Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
BIOLOGY 121	Biology I	5
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 206	Elements of Mechanics-Statics	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
ENGR 250	Engineering Projects	2
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

AES Transfer Pathways

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

- Aerospace Engineering, Associate in Engineering Science (p. 483)
- Agricultural Engineering, Associate in Engineering Science (p. 484)
- Architectural Engineering, Associate in Engineering Science (p. 485)
- Bioengineering, Associate in Engineering Science (p. 486)
- Biomedical Engineering, Associate in Engineering Science (p. 491)
- Chemical Engineering, Associate in Engineering Science (p. 496)
- Civil Engineering, Associate in Engineering Science (p. 503)
- Computer Engineering, Associate in Engineering Science (p. 506)
- Computer Science, Associate in Engineering Science (p. 507)
- Cybersecurity Engineering, Associate in Engineering Science (p. 512)
- Electrical Engineering, Associate in Engineering Science (p. 514)
- Engineering Mechanics, Associate in Engineering Science (p. 517)
- Engineering, Associate in Engineering Science (p. 518)
- Environmental Engineering, Associate in Engineering Science (p. 526)
- Industrial Engineering, Associate in Engineering Science (p. 542)
- Materials Science and Engineering, Associate in Engineering Science (p. 551)
- Mechanical Engineering, Associate in Engineering Science (p. 556)
- Nuclear, Plasma, Radiological Engineering, Associate in Engineering Science (p. 559)
- Systems Engineering and Design, Associate in Engineering Science (p. 583)

Associate in General Studies

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0203

The Associate in General Studies (AGS) degree provides students the ability to explore a broad range of college-level courses to develop new skills or investigate a personal interest. Courses may transfer individually to a four-year university, but the degree as a whole is not designed for transfer or as an occupational degree. Students should work closely with an advisor to determine if the AGS is the right degree program to reach their individual goals. City Colleges of Chicago requires that the degree is inclusive of a minimum of 20 semester hours of General Education.

Code	Title	Hours
General Education [1]		
ENGLISH 101	Composition	3
Select 17 credit hours from at least three of the following disciplines:		17
Mathematics		
Fine Arts & Humanities		
Social and Behavioral Sciences		
Physical Sciences & Life Sciences		
Degree Electives		
Select 40 credit hours		40
Total Hours		**60**

[1] Students are required to take at least one general education course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate Degree.

Associate in Science

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0211

The Associate in Science (AS) degree prepares an individual for transfer to a four-year college or university. Consistent with the IAI model and the ICCB Administrative Rules, City Colleges of Chicago requires that the degree is inclusive of a minimum of 37 semester hours of General Education. For students who already know they are interested in science, technology, engineering, or mathematics (the "STEM" fields), the Associate in Science degree, or even the Associate in Engineering Science (AES), is probably the one to pursue. This is also a transfer degree, and it is similar to the Associate in Arts. The main difference early-on concerns the selection of specific math and science courses, which will be different for students who want to major in a STEM field. Again, working closely with your advisor will ensure that you enroll in the right classes to achieve your goals.

Students are required to take at least one course that fulfills the State of Illinois Human Diversity (HD) requirement for the Associate in Science degree.

To learn more about transferring to a four-year college or university, visit CCC's transfer site. (https://pages.ccc.edu/apply/transfer/)

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Mathematics		6
Social and Behavioral Sciences		6
Fine Arts & Humanities [1]		6
Physical Sciences & Life Sciences [2]		10
AS Electives		
Students should work with a College Advisor to select appropriate core and elective courses, or simply select an AS semester map as a guide.		23
Total Hours		**60**

[1] At least one (1) of the courses must be from the Fine Arts category, and at least one (1) must be from the Humanities category.

[2] At least one (1) of the courses must be from the Physical Sciences category, and at least one (1) must be from the Life Sciences category. At least one (1) lab course is required.

At least one course must meet the Human Diversity (HD) requirement.

AS Transfer Pathways

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

- Biology Education, Associate in Science (p. 487)
- Biology, Associate in Science (p. 489)
- Chemistry Education, Associate in Science (p. 497)
- Chemistry, Associate in General Studies (p. 499)
- Computer Science, Associate in Science (p. 508)
- Environmental Biology, Associate in Science (p. 524)
- Gender, Women's and Sexuality Studies: STEM, Health Equity, and Embodied Social Justice, Associate in Science (p. 529)

- General Science Education, Associate in Science (p. 532)
- Geology, Earth, and Environmental Science, Associate in Science (p. 534)
- Mathematics Education, Associate in Science (p. 552)
- Mathematics, Associate in Science (p. 554)
- Physics Education, Associate in Science (p. 566)
- Physics, Associate in Science (p. 568)
- Pre-Aviation, Associate in Science (p. 571)
- Web Development, Associate in Science (p. 589)

CITY COLLEGES OF CHICAGO

Automotive Body Reconstruction Technology, Basic Certificate

College(s): KK

Program Code: 0112

The Basic Certificate in Automotive Body Reconstruction Technology is designed to provide concentrated training in the areas of auto body reconstruction. Students completing the requirements for this certificate will qualify for entry-level positions as auto body component and vehicle reconstruction. Students may also qualify for entry-level auto body service writer positions.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 107	Automotive Body Welding	4
AUTOTEC 117	Auto Body Reconstruction I	3
AUTOTEC 121	Structural Analysis and Damage Repair I	4
AUTOTEC 217	Auto Body Reconstruction II	3
AUTOTEC 220	Collision Estimating	4
Total Hours		**22**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in Auto Body Reconstruction Technology. If this pathway is followed as outlined, you will earn a Basic Certificate. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 107	Automotive Body Welding	4
AUTOTEC 117	Auto Body Reconstruction I	3
	Hours	**11**
Semester 2		
AUTOTEC 121	Structural Analysis and Damage Repair I	4
AUTOTEC 217	Auto Body Reconstruction II	3
AUTOTEC 220	Collision Estimating	4
	Hours	**11**
	Total Hours	**22**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Body and Related Repairers

Job Description

Repair and refinish automotive vehicle bodies and straighten vehicle frames.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,243
Median 50th Percentile	$50,250
Senior-Level 90th Percentile	$82,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$24
Senior-Level 90th Percentile	$40

Annual Job Openings

227 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	65.34%
A certificate	34.65%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Automotive Body Repainting Technology, Basic Certificate

College(s): KK

Program Code: 0111

The Basic Certificate in Automotive Body Repainting Technology is designed to provide concentrated training in the areas of auto body repainting. Students completing the requirements for this certificate will qualify for entry-level positions as auto body component and vehicle painters. Students may also qualify for entry-level auto body service writer positions.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 118	Auto Body Repainting I	3
AUTOTEC 119	Automotive Body Detailing	5
AUTOTEC 218	Auto Body Repainting II	3
AUTOTEC 220	Collision Estimating	4
AUTOTEC 223	Auto Body Repainting III	3
Total Hours		**22**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate in Auto Body Repainting Technology. This does not represent a contract, nor does it guarantee course availability. If pathway is followed as outlined, student will earn a Basic Certificate.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 118	Auto Body Repainting I	3
AUTOTEC 218	Auto Body Repainting II	3
	Hours	**10**
Semester 2		
AUTOTEC 119	Automotive Body Detailing	5
AUTOTEC 220	Collision Estimating	4
AUTOTEC 223	Auto Body Repainting III	3
	Hours	**12**
	Total Hours	**22**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Body and Related Repairers

Job Description

Repair and refinish automotive vehicle bodies and straighten vehicle frames.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,243
Median 50th Percentile	$50,250
Senior-Level 90th Percentile	$82,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$24
Senior-Level 90th Percentile	$40

Annual Job Openings

227 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	65.34%
A certificate	34.65%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Automotive Technology, Advanced Certificate

College(s): KK, OH, TR

Program Code: 0130

The Advanced Certificate program in Automotive Technology provides the necessary foundation and practical experience to pursue entry-level positions in Automotive Technology that meet the changing demands of the automotive industry. Entry-level positions may be found in automotive dealerships, automotive franchises, independent service repair shops, auto part stores, or through self-employment. Students will learn the technical skills essential to employment in the field of maintenance technology, chassis, diesel, and power train, leading to employment in service, maintenance, as well as management occupations or self-employment. Students will also be able to consider transferring Industrial Engineering Technology credits to state universities.

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 106	Engine Performance I	5
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 204	Electrical Systems II	4
AUTOTEC 209	Steering & Suspension Systems	4
AUTOTEC 210	Engine Performance II	5
AUTOTEC 212	Manual Drive Train & Axles	4
AUTOTEC 214	Transmission Transaxle & Driveline	4
AUTOTEC 215	AutoTemperature Control Systems	4
Total Hours		**46**

Pathways

Semester-by-Semester Program Plan for Full-Time Students

This is an **example course sequence** for students interested in earning an Advanced Certificate in Automotive Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a basic certificate (BC) and an advanced certificate (AC) in Automotive Technology.

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 209	Steering & Suspension Systems	4
	Hours	**20**
Semester 2		
AUTOTEC 106	Engine Performance I	5
AUTOTEC 204	Electrical Systems II	4
	Hours	**9**
Semester 3		
AUTOTEC 210	Engine Performance II	5
AUTOTEC 212	Manual Drive Train & Axles	4
AUTOTEC 215	AutoTemperature Control Systems	4
	Hours	**13**
Semester 4		
AUTOTEC 214	Transmission Transaxle & Driveline	4
	Hours	**4**
	Total Hours	**46**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Service Technicians and Mechanics

Job Description

Diagnose, adjust, repair, or overhaul automotive vehicles.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,560
Median 50th Percentile	$51,658
Senior-Level 90th Percentile	$87,599

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$25
Senior-Level 90th Percentile	$42

Annual Job Openings

853 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.60%
A certificate	50.25%
Some college	5.78%
An Associate degree	1.37%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Automotive Technology, Associate in Applied Science

College(s): KK, OH, TR

Program Code: 0125

The AAS degree in Automotive Technology provides the necessary foundation and practical experience to pursue entry-level positions that meet the changing demands of the automotive industry. Entry-level positions may be found in automotive dealerships and franchises, independent service repair shops, auto part stores, or through self-employment. Students will learn the skills essential to employment in the field of maintenance technology, auto body care, chassis, diesel, and power train, leading to employment in service, maintenance, and areas of technological specialty such as detailing, auto body paint and refinishing, as well as management occupations or self-employment. Students will also be able to consider transferring Industrial Engineering Technology credits to state universities.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		15
Required Program Core		
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 106	Engine Performance I	5
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 204	Electrical Systems II	4
AUTOTEC 209	Steering & Suspension Systems	4
AUTOTEC 210	Engine Performance II	5
AUTOTEC 212	Manual Drive Train & Axles	4
AUTOTEC 215	AutoTemperature Control Systems	4
Program Electives		
Select a minimum of 6 credit hours of program electives (p. 76)		6
Total Hours		**66**

1. Select an additional 15 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social and Behavioral Sciences, or Physical Sciences & Life Sciences.
2. At least one course must meet the Human Diversity (HD) requirement.

Program Electives

Code	Title	Hours
AUTOTEC 108	Work Based Learning I	3-6
AUTOTEC 214	Transmission Transaxle & Driveline	4
CIS 120	Introduction to Computer Applications	3

Pathways

Semester-by-Semester Program Plan for Full-Time Students

This is an **example course sequence** for students interested in earning an Associate in Applied Science degree in Automotive Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will a Basic Certificate(BC), an Advanced Certificate (AC) and an Associate in Applied Science (AAS) Degree in Automotive Technology. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 209	Steering & Suspension Systems	4
	Hours	**20**
Semester 2		
AUTOTEC 106	Engine Performance I	5
AUTOTEC 204	Electrical Systems II	4
ENGLISH 101	Composition [1]	3
CIS 120	Introduction to Computer Applications [2]	3
	Hours	**15**
Semester 3		
AUTOTEC 210	Engine Performance II	5
AUTOTEC 212	Manual Drive Train & Axles	4
AUTOTEC 215	AutoTemperature Control Systems	4
MATH 118	General Education Math [1]	4
	Hours	**17**
Semester 4		
AUTOTEC 214	Transmission Transaxle & Driveline	4
PHY SCI 111	General Course I Physical Science [1]	4
General Education course [1]		3
Social and Behavioral Sciences course (HD) [1]		3
Fine Arts & Humanities course [1]		3
	Hours	**17**
	Total Hours	**69**

Total pathway credit hours may vary based on selected general education courses and electives

[1] General Education Requirement
[2] Program Elective (p. 76)

Program Electives

Code	Title	Hours
AUTOTEC 108	Work Based Learning I	3-6
AUTOTEC 214	Transmission Transaxle & Driveline	4
CIS 120	Introduction to Computer Applications	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Service Technicians and Mechanics

Job Description

Diagnose, adjust, repair, or overhaul automotive vehicles.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,560
Median 50th Percentile	$51,658
Senior-Level 90th Percentile	$87,599

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$25
Senior-Level 90th Percentile	$42

Annual Job Openings

853 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.60%
A certificate	50.25%
Some college	5.78%
An Associate degree	1.37%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Automotive Technology, Basic Certificate

College(s): OH, TR

Program Code: 0116

The Automotive Basic Certificate Program introduces students to a variety of professional tools and equipment such as automobile scanners and multi-meters utilized in automotive shops and by industry professionals. Students learn the ability to diagnose automotive issues and recommend repairs. The basic certificate provides students with the necessary entry-level skills and theory to enter automobile service/repair fields.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 209	Steering & Suspension Systems	4
Total Hours		**20**

Pathway

Semester 1		Hours
AUTOTEC 101	Automotive Maintenance and Light Repair	4
AUTOTEC 103	Engine Concepts	4
AUTOTEC 104	Electrical Systems I	4
AUTOTEC 109	Automotive Brakes	4
AUTOTEC 209	Steering & Suspension Systems	4
	Hours	**20**
	Total Hours	**20**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Service Technicians and Mechanics

Job Description

Diagnose, adjust, repair, or overhaul automotive vehicles.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Entry-Level 10th Percentile	$31,560
Median 50th Percentile	$51,658
Senior-Level 90th Percentile	$87,599

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$25
Senior-Level 90th Percentile	$42

Annual Job Openings

853 annual openings in Cook County

National Education Attainment

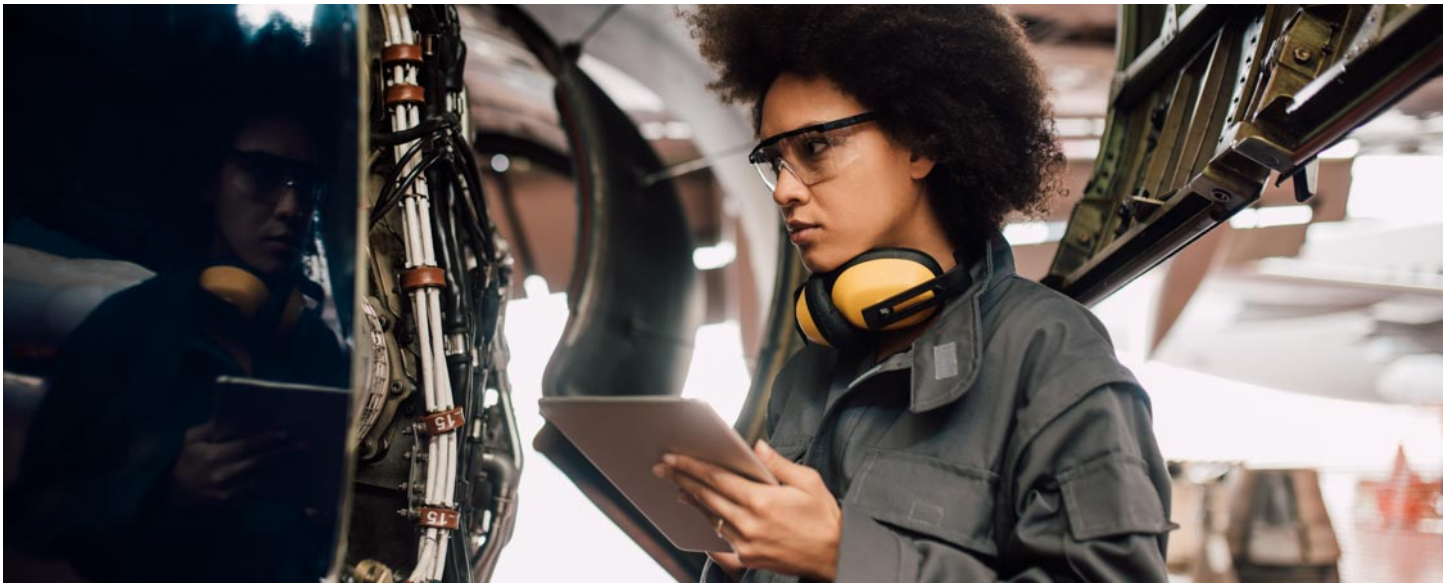
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.60%
A certificate	50.25%
Some college	5.78%
An Associate degree	1.37%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Aviation Maintenance Technician - General, Basic Certificate



College(s): OH

Program Code: 0444

The Aviation Maintenance Technician - General basic certificate program provides the foundational knowledge of general aircraft for beginning students. With a hands-on approach to learning, students acquire essential mathematics, physics, tool usage, maintenance operations, and general electricity current and emerging aviation maintenance technologies. Upon completion of the basic certificate, students will be eligible to take the FAA General portion of the FAA Aviation Maintenance Technician certification exam.

Program Requirements

Code	Title	Hours
Required Program Core		
AVIATN 101	Aviation General Sciences I-Math, Science and General Physics	5
AVIATN 102	Aviation General Sciences II - Tools, Surfaces, and Corrosion Control	5
AVIATN 103	Aviation General Sciences III - Maintenance Operations and Records	5
AVIATN 104	Aviation General Sciences IV - Basic Electricity	5
Total Hours		**20**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in Aviation Maintenance Technician - General. If this pathway is followed as outlined, you will earn a Basic Certificate. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan

Semester 1		**Hours**
AVIATN 101	Aviation General Sciences I-Math, Science and General Physics	5
	Hours	**5**
Semester 2		
AVIATN 102	Aviation General Sciences II - Tools, Surfaces, and Corrosion Control	5
	Hours	**5**
Semester 3		
AVIATN 103	Aviation General Sciences III - Maintenance Operations and Records	5
	Hours	**5**
Semester 4		
AVIATN 104	Aviation General Sciences IV - Basic Electricity	5
	Hours	**5**
	Total Hours	**20**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Aircraft Mechanics and Service Technicians

Job Description

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,543
Median 50th Percentile	$87,746
Senior-Level 90th Percentile	$125,967

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$42
Senior-Level 90th Percentile	$61

Annual Job Openings

269 annual openings in Cook County

National Education Attainment

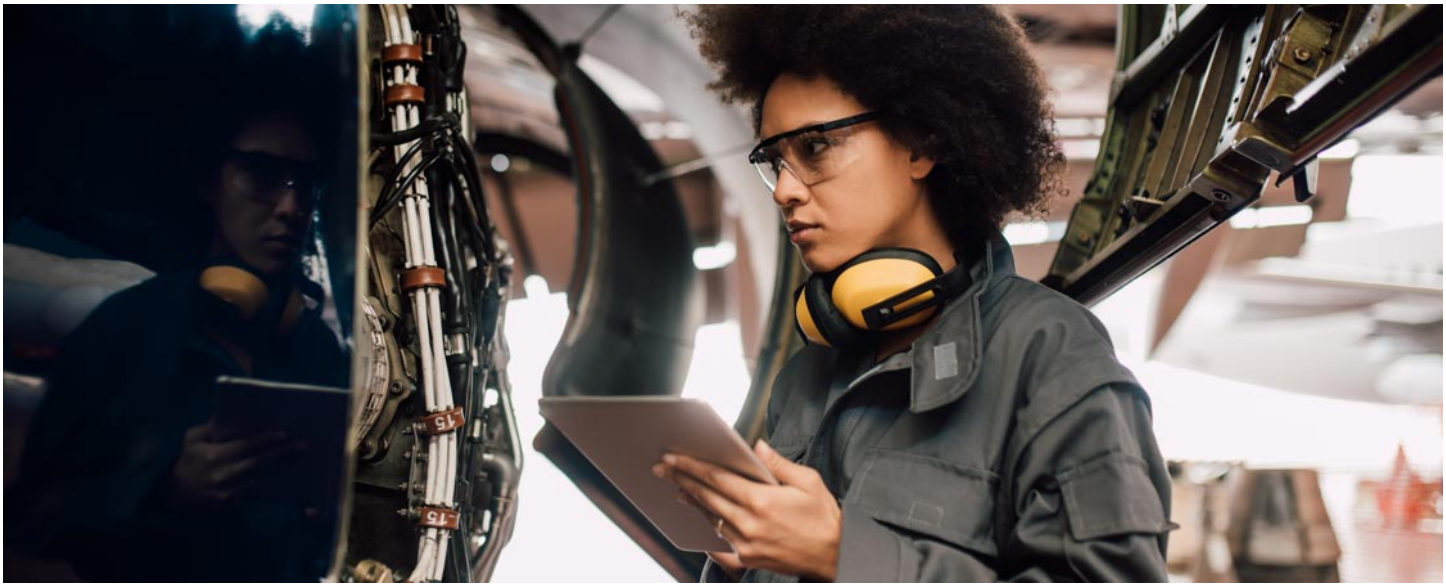
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.37%
A certificate	60.33%
Some college	0.00%
An Associate degree	24.80%
A Bachelor's degree	2.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

2.50% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Aviation Maintenance Technician, Associate in Applied Science



College(s): OH

Program Code: 0445

The Aviation Maintenance program provides general aircraft, sheet metal, airframe, and powerplant courses that meet the Federal Aviation Administration requirements. The program provides practical skills and work-based learning opportunities to ensure professional growth in the competitive aviation profession.

Upon completion of the program students will be prepared for full FAA certification as Aviation Maintenance Mechanics

Program Requirements

Code	Title	Hours
General Education Requirements [2]		
ENGLISH 101	Composition	3
IAI approved Social/Behavioral Science (p. 599)		3
IAI approved GECC math course (p. 599)		4
IAI approved GECC physical science course (p. 599)		3
IAI approved Hum/FineArts course (p. 599)		3
Required Program Core		
AVIATN 101	Aviation General Sciences I-Math, Science and General Physics	5
AVIATN 102	Aviation General Sciences II - Tools, Surfaces, and Corrosion Control	5
AVIATN 103	Aviation General Sciences III - Maintenance Operations and Records	5
AVIATN 104	Aviation General Sciences IV - Basic Electricity	5
AVIATN 200	Aviation Sheet Metal	8
AVIATN 204	Airframe Assembly and Inspection	3
AVIATN 206	Electrical, Navigational, and Communications Systems [1]	3
AVIATN 207	Non-Metallic Structures [1]	3
AVIATN 208	Aircraft Systems I [1]	3
AVIATN 209	Aircraft Systems II [1]	3
AVIATN 213	Aircraft Systems III [1]	3
AVIATN 214	Reciprocating Engines [1]	3
AVIATN 215	Turbine Engines [1]	3
AVIATN 216	Powerplant Systems I [1]	3
AVIATN 217	Powerplant Systems II [1]	3
AVIATN 218	Aircraft Propellers and Inspections [1]	3
Required Work-Based Learning Courses		
AVIATN 219	Aviation Maintenance Technician Capstone [1]	3
Total Hours		**80**

[1] Taken at the Aviation Institute of Maintenance
[2] One course must satisfy the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in earning a Associate in Applied Science in Aviation Maintenance Technician. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Aviation Maintenance Technician - General and an AAS in Aviation Maintenance Technician. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan

Semester 1		Hours
AVIATN 101	Aviation General Sciences I-Math, Science and General Physics	5

IAI approved Hum/FineArts course (p. 599) [1]		3
IAI approved GECC physical science course (p. 599) [1]		3
	Hours	**11**
Semester 2		
AVIATN 102	Aviation General Sciences II - Tools, Surfaces, and Corrosion Control	5
IAI approved GECC math course (p. 599) [1]		4
IAI approved Social/Behavioral Science (p. 599) [1]		3
	Hours	**12**
Semester 3		
AVIATN 103	Aviation General Sciences III - Maintenance Operations and Records	5
AVIATN 104	Aviation General Sciences IV - Basic Electricity	5
ENGLISH 101	Composition [1]	3
	Hours	**13**
Semester 4		
AVIATN 200	Aviation Sheet Metal	8
	Hours	**8**
Semester 5		
AVIATN 204	Airframe Assembly and Inspection	3
AVIATN 206	Electrical, Navigational, and Communications Systems	3
AVIATN 207	Non-Metallic Structures [2]	3
	Hours	**9**
Semester 6		
AVIATN 208	Aircraft Systems I [2]	3
AVIATN 209	Aircraft Systems II [2]	3
AVIATN 213	Aircraft Systems III [2]	3
	Hours	**9**
Semester 7		
AVIATN 214	Reciprocating Engines [2]	3
AVIATN 215	Turbine Engines [2]	3
AVIATN 216	Powerplant Systems I [2]	3
	Hours	**9**
Semester 8		
AVIATN 217	Powerplant Systems II [2]	3
AVIATN 218	Aircraft Propellers and Inspections [2]	3
AVIATN 219	Aviation Maintenance Technician Capstone [2]	3
	Hours	**9**
	Total Hours	**80**

[1] General Education Requirement (one course must satisfy the Human Diversity (HD) (p. 605) requirement)
[2] Taken at the Aviation Institute of Maintenance

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Aircraft Mechanics and Service Technicians

Job Description

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,543
Median 50th Percentile	$87,746
Senior-Level 90th Percentile	$125,967

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$42
Senior-Level 90th Percentile	$61

Annual Job Openings

269 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.37%
A certificate	60.33%
Some college	0.00%
An Associate degree	24.80%
A Bachelor's degree	2.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

2.50% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Baking and Pastry Arts, Advanced Certificate

College(s): KK

Program Code: 0366

The Advanced Certificate in Baking and Pastry Arts is a sequential program taught over three semesters and includes a majority of the core courses from the parent Baking and Pastry Arts AAS degree program.

Program Requirements

Code	Title	Hours
Required Program Core		
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330BKPS 776	Advanced Baking Principles	3
330BKPS 777	Chocolate and Confections	3
330BKPS 784	Breads and Rolls	4
330BKPS 788	Classical and Special Occasion Cakes	3
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
Any college credit level MATH course		3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning a degree in Baking and Pastry Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Baking and Pastry Arts. It does not represent a contract, nor does it guarantee course availability.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
	Hours	**14**
Semester 2		
330BKPS 776	Advanced Baking Principles	3
330BKPS 784	Breads and Rolls	4
Any college level MATH course		3
	Hours	**10**
Semester 3		
330BKPS 777	Chocolate and Confections	3
330BKPS 788	Classical and Special Occasion Cakes	3
	Hours	**6**
	Total Hours	**30**

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional

guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bakers

Job Description

Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,945
Median 50th Percentile	$37,811
Senior-Level 90th Percentile	$49,749

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$18
Senior-Level 90th Percentile	$24

Annual Job Openings

809 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	82.47%
A certificate	8.06%
Some college	9.47%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Baking and Pastry Arts, Associate in Applied Science

College(s): KK

Program Code: 0365

The Associate in Applied Science degree program in Baking and Pastry Arts is a sequential learning program taught over four semesters. All semesters include lecture, discussion, demonstration and hands-on production that allow students to practice the techniques of Baking and Pastry production in a commercial bakeshop environment. This program includes production for restaurant and bakeshop sales, offering the student real-world experience in the field.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
Mathematics course		3
Additional General Education Courses [1,2]		9
Required Program Core		
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330BKPS 776	Advanced Baking Principles	3
330BKPS 777	Chocolate and Confections	3
330BKPS 784	Breads and Rolls	4
330BKPS 788	Classical and Special Occasion Cakes	3
330BKPS 800	Bakery Operations	7
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 714	Nutrition for Chefs	3
330CUL 717	Food Costing & Control	3
HMGT 724	Hospitality Management	3
HMGT 860	Hospitality Internship	4
Total Hours		**62**

[1] At least one course must meet the Human Diversity (HD) requirement.
[2] Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social and Behavioral Sciences, or Physical Sciences & Life Sciences.

Pathway

This is an **example course sequence** for students interested in earning a degree in Baking and Pastry Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), an Advanced Certificate (AC) and Associate in Applied Science (AAS) degree in Baking and Pastry Arts. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
	Hours	**14**

Semester 2		
330BKPS 776	Advanced Baking Principles	3
330BKPS 784	Breads and Rolls	4
330CUL 714	Nutrition for Chefs	3
ENGLISH 101	Composition [1]	3
Mathematics course [1]		3
	Hours	**16**
Semester 3		
330BKPS 777	Chocolate and Confections	3
330BKPS 788	Classical and Special Occasion Cakes	3
330CUL 717	Food Costing & Control	3
HMGT 724	Hospitality Management	3
General Education course (HD) [1,2]		3
	Hours	**15**
Semester 4		
330BKPS 800	Bakery Operations	7
HMGT 860	Hospitality Internship	4
General Education course [1,2]		3
General Education course [1,2]		3
	Hours	**17**
	Total Hours	**62**

[1] General Education Requirement
[2] At least one course must meet the Human Diversity (HD) requirement.

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bakers

Job Description

Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,945
Median 50th Percentile	$37,811
Senior-Level 90th Percentile	$49,749

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$18
Senior-Level 90th Percentile	$24

Annual Job Openings

809 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	82.47%
A certificate	8.06%
Some college	9.47%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Baking and Pastry Arts, Basic Certificate

College(s): KK

Program Code: 0367

The Basic Certificate in Baking and Pastry Arts introduces students to the commercial baking environment, covering safety and sanitation skills and station setup, proper use and care of equipment, and baking and pastry terminology. The program is designed to provide the students with the opportunity to investigate and assess Baking and Pastry Arts as a possible career.

Program Requirements

Code	Title	Hours
Required Program Core		
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
Total Hours		**14**

Pathway

This is an **example course sequence** for students interested in earning a degree in Baking and Pastry Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Baking and Pastry Arts. It does not represent a contract, nor does it guarantee course availability.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition, *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
330BKPS 765	Introduction to Baking	3
330BKPS 767	Baking Techniques	3
330BKPS 768	Pastry Techniques	3
330CUL 700	College Success Hospitality Perspective	3
330CUL 703	Food Sanitation & Safety I	2
	Hours	**14**
	Total Hours	**14**

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

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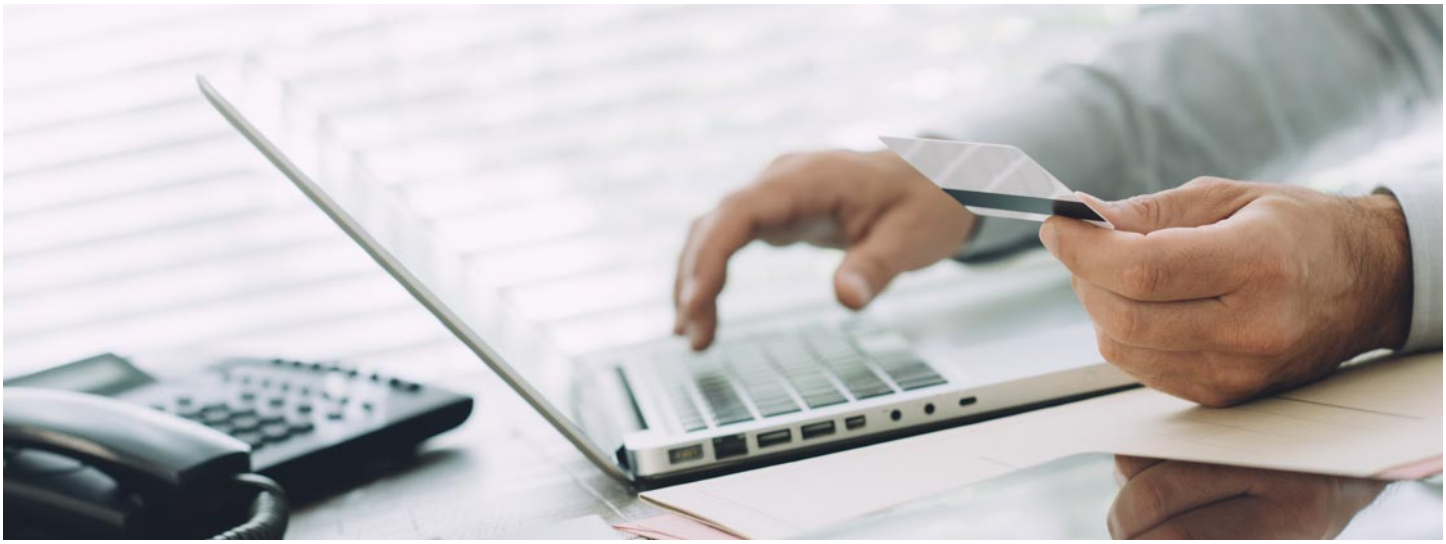
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Banking, Basic Certificate



College(s): HW

Program Code: 0417

The Basic Certificate program in Banking is designed to provide students who have little or no formal business knowledge of the banking industry with introductory information and understanding of business and banking. Students will gain knowledge of business and banking operations, aptitude in mathematical calculations, client interaction and client management skills, business development aptitude, technological proficiency, soft skills, and cash handling experience.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
BUSINES 141	Business Mathematics	3
BUSINES 161	Prin Of Bank Operations	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 237	Selling	3
BUSINES 284	Business Communications	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing Banking. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition	3
BUSINES 141	Business Mathematics	3
BUSINES 161	Prin Of Bank Operations	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 237	Selling	3
BUSINES 284	Business Communications	3
	Hours	**18**
	Total Hours	**18**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Loan Interviewers and Clerks

Job Description

Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,709
Median 50th Percentile	$60,260
Senior-Level 90th Percentile	$83,263

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$29
Senior-Level 90th Percentile	$40

Annual Job Openings

239 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.85%
A certificate	12.12%
Some college	0.09%
An Associate degree	6.69%
A Bachelor's degree	38.26%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

38.26% continue their education beyond an associate degree

New Accounts Clerks

Job Description

Interview persons desiring to open accounts in financial institutions. Explain account services available to prospective customers and assist them in preparing applications.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,522
Median 50th Percentile	$51,604
Senior-Level 90th Percentile	$62,420

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$25
Senior-Level 90th Percentile	$30

Annual Job Openings

100 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.60%
A certificate	15.45%
Some college	28.22%
An Associate degree	10.73%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Credit Authorizers, Checkers, and Clerks

Job Description

Authorize credit charges against customers' accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants to obtain personal and financial data, determine credit worthiness, process applications, and notify customers of acceptance or rejection of credit.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,365
Median 50th Percentile	$68,674
Senior-Level 90th Percentile	$104,332

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$33
Senior-Level 90th Percentile	$50

Annual Job Openings

9 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	26.97%
A certificate	1.73%

Some college	2.33%
An Associate degree	22.90%
A Bachelor's degree	46.07%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

46.07% continue their education beyond an associate degree

Bar Management, Associate in Applied Science

College(s): KK

Program Code: 0437

Students in the Bar Management Associate in Applied Science can expect instruction on the major concepts and basic skills involved in owning, operating and managing food and beverage establishments, including bars, restaurants, food service facilities, along with other food and beverage concepts. Focused on all students including, non-traditional enrollees, owners and entrepreneurs, the program will develop key skills in finance, alcohol awareness, cocktail culture and design, pricing, customer service, profit margin creation, menu design, wine, beer and spirit knowledge, ordering and receiving, equipment, sanitation, and employee engagement. Upon completion, students will receive nationally recognized certifications in sanitation, customer service and alcohol awareness.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math	4
Two (2) Humanities, Fine Arts, or Social and Behavioral Sciences courses		6
Required Program Core		
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
HMGT 221	Introduction to Beverage	2
HMGT 222	Art of the Cocktail	4
HMGT 223	Bar Concept Management	2
HMGT 224	Bar Administration and Operations	4
HMGT 225	Advanced Beverage Seminar	3
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
HMGT 814	Hospitality Procurement	3
HMGT 816	Introduction to Hospitality Marketing Principles	3
Required Work-Based Learning Courses		
HMGT 860	Hospitality Internship	4
Total Hours		**60**

Pathway

This is an **example course sequence** for students interested in earning a degree in Bar Management. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Culinary Arts and an Associate in Applied Science Degree (AAS) in Bar Management. It does not represent a contract, nor does it guarantee course availability. Courses may be substituted within the indicated categories (except Communications courses). One course will satisfy the Human Diversity (HD) requirement, and is labeled with an "HD" in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4

SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**16**
Semester 2		
HMGT 221	Introduction to Beverage	2
HMGT 223	Bar Concept Management	2
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
Humanities, Fine Arts, or Social and Behavioral Sciences course (HD) [1]		3
	Hours	**13**
Semester 3		
ENGLISH 101	Composition [1]	3
HMGT 222	Art of the Cocktail	4
HMGT 224	Bar Administration and Operations	4
HMGT 814	Hospitality Procurement	3
Humanities, Fine Arts, or Social and Behavioral Sciences course (HD) [1]		3
	Hours	**17**
Semester 4		
HMGT 225	Advanced Beverage Seminar	3
HMGT 816	Introduction to Hospitality Marketing Principles	3
HMGT 860	Hospitality Internship	4
MATH 118	General Education Math [1]	4
	Hours	**14**
	Total Hours	**60**

[1] General Education Requirements

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Food Service Managers

Job Description

Plan, direct, or coordinate activities of an organization or department that serves food and beverages.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,590
Median 50th Percentile	$60,571
Senior-Level 90th Percentile	$114,020

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$29
Senior-Level 90th Percentile	$55

Annual Job Openings

795 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	70.56%
A certificate	4.83%
Some college	18.35%
An Associate degree	0.71%
A Bachelor's degree	5.54%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.54% continue their education beyond an associate degree

Bartenders

Job Description

Mix and serve drinks to patrons, directly or through waitstaff.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,779
Median 50th Percentile	$32,068
Senior-Level 90th Percentile	$59,883

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$15
Senior-Level 90th Percentile	$29

Annual Job Openings

3266 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	79.94%
A certificate	2.57%
Some college	16.37%
An Associate degree	0.00%
A Bachelor's degree	1.12%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.12% continue their education beyond an associate degree

Barbering, Advanced Certificate

College(s): OH*, TR

Program Code: 0439

The Cosmetology Department is dedicated to preparing a diverse student body for licensure exam, career entry, advancement, and life-long learning in an increasingly interdependent global society. The Barbering program meets the standards of the Illinois Department of Professional Regulation in total hours and has a licensed teaching staff, standard industry equipment, approved facilities, and quality course content that meets industry requirements.

Program Requirements

Code	Title	Hours
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
BARBER 107	Barber Salon Technology 1	7
BARBER 108	Barber Salon Technology II	7
BARBER 203	Advanced Barbering	6
BARBER 204	Barbering Summative Seminar	6
Total Hours		**50**

Pathway

This is an **example course sequence** for students interested in earning an Advanced Certificate in Barbering. If this pathway is followed as outlined, you will earn an Advanced Certificate in Barbering. It does not represent a contract, nor does it guarantee course availability.

Semester 1		Hours
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
	Hours	**12**
Semester 2		
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
	Hours	**12**
Semester 3		
BARBER 107	Barber Salon Technology 1	7
BARBER 108	Barber Salon Technology II	7
	Hours	**14**
Semester 4		
BARBER 203	Advanced Barbering	6
BARBER 204	Barbering Summative Seminar	6
	Hours	**12**
	Total Hours	**50**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Barbers

Job Description

Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$10,230
Median 50th Percentile	$25,201
Senior-Level 90th Percentile	$64,052

Hourly Wages

Entry-Level 10th Percentile	$5
Median 50th Percentile	$12
Senior-Level 90th Percentile	$31

Annual Job Openings

131 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.49%
A certificate	28.70%
Some college	11.74%
An Associate degree	11.13%
A Bachelor's degree	1.68%
A Master's or Professional degree	1.25%
A Doctoral degree or more	0.00%

2.93% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Barbering, Associate in Applied Science

College(s): OH*, TR

Program Code: 0462

The Associate in Applied Science degree in Barbering offers students an opportunity to gain industry knowledge and practice in haircutting/shaping, razor shaving, styling, creative and graphic designs, chemical services, skincare, and nailcare. Additionally, students will acquire information about operating and owning a business to best prepare them to assume key consulting positions within the industry and to successfully own and manage their own barbershop. Training with live models and consultation with industry professionals are highlights of the program in emphasizing a myriad of career opportunities in the field. Required proficiency exams and exam preparation/reviews are part of the program in meeting the Illinois Department of Professional Regulation (IDFPR) standards. All discipline courses are taught by licensed teaching staff, using standard industry equipment, approved facilities, and quality course content that meets industry requirements.

In the Barbering AAS degree program, students will also complete general education courses that include English composition, mathematics, computer information science, and business courses. Additional elective coursework may cover topics in art or theater art to enhance visual acuity and perception in executing hair design, razor shaving and styling.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Mathematics course		3
CIS 120	Introduction to Computer Applications	3
Social and Behavioral Sciences course (HD)		3
BUSINES 111 or BUSINES 21(	Introduction To Business Entrepreneurship	3
Required Program Core		
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
BARBER 107	Barber Salon Technology 1	7
BARBER 108	Barber Salon Technology II	7
BARBER 203	Advanced Barbering	6
BARBER 204	Barbering Summative Seminar	6
Total Hours		**65**

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in Barbering. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) and Associate in Applied Science degree (AAS) in Barbering. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6

ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 2		
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
CIS 120	Introduction to Computer Applications [1]	3
	Hours	**15**
Semester 3		
BARBER 107	Barber Salon Technology 1	7
BARBER 108	Barber Salon Technology II	7
	Hours	**14**
Semester 4		
BARBER 203	Advanced Barbering	6
BARBER 204	Barbering Summative Seminar	6
	Hours	**12**
Semester 5		
BUSINES 111 or BUSINES 216	Introduction To Business [1] or Entrepreneurship	3
MATH 118	General Education Math [1]	4
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**10**
	Total Hours	**66**

[1] General Education Requirement

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Barbers

Job Description

Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$10,230
Median 50th Percentile	$25,201
Senior-Level 90th Percentile	$64,052

Hourly Wages

Entry-Level 10th Percentile	$5
Median 50th Percentile	$12
Senior-Level 90th Percentile	$31

Annual Job Openings

131 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.49%
A certificate	28.70%
Some college	11.74%
An Associate degree	11.13%
A Bachelor's degree	1.68%
A Master's or Professional degree	1.25%
A Doctoral degree or more	0.00%

2.93% continue their education beyond an associate degree

Bilingual Educator Endorsement, Basic Certificate

College(s): TR

Program Code: 0428

The purpose of the Education Department Bilingual Educator Endorsement (BEE) program is to prepare teachers, administrators, and school service professionals who hold an Illinois Professional Educators License to meet the state endorsement requirements for the BEE. The BEE certificate will prepare teachers to teach in Bilingual classrooms in which instruction is provided in English and the students' home language. The coursework in this certificate is specifically aligned to meet the linguistics, development, education, methods, and cultural content requirements of the state endorsements including electives and a BEE practicum experience. The Education Department believes that these endorsements are of particular importance as the number of Bilingual students in Illinois is projected to continue to rise, and there is a declared Bilingual teacher shortage. The BEE certificate will prepare teachers who have tested as proficient in a foreign language to teach in bilingual settings.

Program Requirements

Code	Title	Hours
Required Program Core		
EDUC 220	Theoretical Foundations of 2nd Language Acquisition and Learning	3
EDUC 221	Methods and Materials for Teaching ESL in PK-12	3
EDUC 222	Methods & Materials for Teaching ESL in PK-12 Bilingual	3
EDUC 223	Assessment of the Second Language Learner	3
EDUC 224	Cross Cultural Studies for Teaching Limited English Proficient Students	3
Required Work-Based Learning Courses		
EDUC 225	Bilingual and ESL Practicum	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing Bilingual Educator Endorsement. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
EDUC 220	Theoretical Foundations of 2nd Language Acquisition and Learning	3
EDUC 221	Methods and Materials for Teaching ESL in PK-12	3
EDUC 222	Methods & Materials for Teaching ESL in PK-12 Bilingual	3
EDUC 223	Assessment of the Second Language Learner	3
EDUC 224	Cross Cultural Studies for Teaching Limited English Proficient Students	3
	Hours	**15**

Semester 2		
EDUC 225	Bilingual and ESL Practicum	3
	Hours	**3**
	Total Hours	**18**

Choose your courses with your College Advisor.

Admission Requirements:

- Undergrad degree holders
- Valid Illinois Professional Educator License (PEL)
- Pass Target Language Proficiency test through ISBE

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors

Job Description

Teach or instruct out-of-school youths and adults in basic education, literacy, or English as a Second Language classes, or in classes for earning a high school equivalency credential.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,531
Median 50th Percentile	$61,247
Senior-Level 90th Percentile	$105,870

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$29
Senior-Level 90th Percentile	$51

Annual Job Openings

93 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	11.38%
A certificate	0.00%
Some college	3.28%
An Associate degree	11.38%
A Bachelor's degree	52.22%
A Master's or Professional degree	21.75%
A Doctoral degree or more	0.00%

73.97% continue their education beyond an associate degree

Bilingual Teacher Aide, Associate in Applied Science

College(s): HW*

Program Code: 0276

**Beginning Spring 2016, this program is no longer accepting new students. Please refer to CCC's other Education offerings.*

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		12
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families [3]	3
CHLD DV 262	Child, Family & Community Relations	3
EDUC 260	Principles of Practice in Elementary Education	3
LING 101	Language And Culture	3
LING 102	Introduction To Linguistics	3
LING 103	Instructional Media Second Language Teachers	3
LING 104	Cross Cultural/Multicultural Education	3
LING 201	Issues in First and Second Language Acquisition	3
Required Work-Based Learning Courses		
EDUC 269	Practicum in Elementary Education-16 Wks. [4]	6
Program Electives		
Students should meet with a College Advisor for selection of elective courses.		6
Total Hours		**61**

1. Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social & Behavioral Sciences, or Physical & Life Sciences.
2. At least one course must meet the Human Diversity (HD) requirement.
3. Requires completion of clinical experience/observation hours
4. Course is held in school-age setting

Biotechnology, Associate in Applied Science

College(s): TR

Program Code: 0215

The Biotechnology Associate in Applied Science program provides the required knowledge and skill set for students pursuing entry-level career opportunities in the biotech industry. Students will receive hands on training in the biomanufacturing of biopharmaceutical products by bacteria, yeast, algae, and eukaryotic cell lines. Students will receive training in the soft skills (written and oral communication, interviewing, leadership, networking, and critical thinking) which will enhance their employability.

Program Requirements

Code	Title	Hours
General Education Coursework		
BIOLOGY 121	Biology I	5
CIS 103	Fundamentals of Programming	3
ENGLISH 101	Composition	3
INTDSP 104	College Success: Special Topics	1
General Education Human Diversity course		3
Required Program Core		
CHEM 201	General Chemistry I	5
CHEM 203	General Chemistry II	5
MCROBIO 233	General Microbiology	4
MCROBIO 234	Applied Microbiology	4
BIOTECH 201	Survey of Biotechnology	2
BIOTECH 211	Laboratory Math for Biotechnology	2
BIOTECH 212	Basic Laboratory Skills and Safety	3
BIOTECH 220	Cell Culture Laboratory	3
BIOTECH 225	Biotechnology Techniques 1	3
BIOTECH 230	Molecular Biology Techniques	3
BIOTECH 235	Biotechnology Techniques 2	3
BIOTECH 245	Bioinformatics for Biotechnology	3
BIOTECH 262	Biomanufacturing	4
Work-Based Learning Courses		
BIOTECH 299	Internship in Biotechnology	2
Total Hours		**61**

[1] Students must complete a Work-Based Learning course in the summer between year 1 and year 2

Pathway

This is an **example course sequence** for students interested in earning a Associate in Applied Science (AAS) in Biotechnology. If this pathway is followed as outlined, you will earn a Basic Certificate. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
BIOLOGY 121	Biology I	5
BIOTECH 201	Survey of Biotechnology	2
BIOTECH 211	Laboratory Math for Biotechnology	2
CHEM 201	General Chemistry I	5
INTDSP 104	College Success: Special Topics	1
	Hours	**15**
Semester 2		
CHEM 203	General Chemistry II	5
BIOTECH 212	Basic Laboratory Skills and Safety	3
ENGLISH 101	Composition	3

MCROBIO 233	General Microbiology	4
	Hours	**15**
Semester 3		
BIOTECH 299	Internship in Biotechnology	2
	Hours	**2**
Semester 4		
BIOTECH 220	Cell Culture Laboratory	3
BIOTECH 225	Biotechnology Techniques 1	3
BIOTECH 230	Molecular Biology Techniques	3
MCROBIO 234	Applied Microbiology	4
	Hours	**13**
Semester 5		
BIOTECH 235	Biotechnology Techniques 2	3
BIOTECH 245	Bioinformatics for Biotechnology	3
BIOTECH 262	Biomanufacturing	4
CIS 103	Fundamentals of Programming (HD)	3
Human Diversity Course		3
	Hours	**16**
	Total Hours	**61**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Biological Technicians

Job Description

Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,223
Median 50th Percentile	$52,689
Senior-Level 90th Percentile	$82,579

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$25
Senior-Level 90th Percentile	$40

Annual Job Openings

89 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	1.43%
A certificate	0.93%
Some college	1.43%
An Associate degree	0.00%
A Bachelor's degree	63.12%
A Master's or Professional degree	29.36%
A Doctoral degree or more	3.73%

96.21% continue their education beyond an associate degree

Environmental Science and Protection Technicians, Including Health

Job Description

Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist. May collect samples of gases, soil, water, and other materials for testing.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,315
Median 50th Percentile	$68,418
Senior-Level 90th Percentile	$107,657

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$33
Senior-Level 90th Percentile	$52

Annual Job Openings

48 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.55%
A certificate	4.55%
Some college	0.00%
An Associate degree	22.73%
A Bachelor's degree	68.18%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

68.18% continue their education beyond an associate degree

Agricultural Technicians

Job Description

Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,618
Median 50th Percentile	$45,874
Senior-Level 90th Percentile	$95,630

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$22
Senior-Level 90th Percentile	$46

Annual Job Openings

24 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	44.53%
A certificate	0.00%
Some college	5.47%
An Associate degree	13.19%
A Bachelor's degree	24.15%
A Master's or Professional degree	5.47%
A Doctoral degree or more	7.20%

36.82% continue their education beyond an associate degree

Food Science Technicians

Job Description

Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,127
Median 50th Percentile	$67,532
Senior-Level 90th Percentile	$125,441

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$32
Senior-Level 90th Percentile	$60

Annual Job Openings

32 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	17.11%
A certificate	0.00%
Some college	12.35%
An Associate degree	23.04%
A Bachelor's degree	32.33%
A Master's or Professional degree	12.78%
A Doctoral degree or more	2.38%

47.49% continue their education beyond an associate degree

Environmental Scientists and Specialists, Including Health

Job Description

Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or public health. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$58,409
Median 50th Percentile	$101,146
Senior-Level 90th Percentile	$184,458

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$49
Senior-Level 90th Percentile	$89

Annual Job Openings

51 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	21.32%
A certificate	0.00%
Some college	0.76%
An Associate degree	0.00%
A Bachelor's degree	60.15%
A Master's or Professional degree	13.78%
A Doctoral degree or more	3.99%

77.92% continue their education beyond an associate degree

BNA Fundamentals and Clinical, Basic Certificate

College(s): KK, MX

Program Code: 0801

This Illinois Department of Public Health approved certificate program for Basic Nursing Assistant (BNA) prepares students to work in the health care industry as a Certified Nursing Assistant (CNA). Students will be introduced to the discipline of nursing and the basic approaches to patient care. The role of the CNA as an assistant to the licensed nurse and member of the health care team is studied and practiced in the classroom, laboratory and clinical setting. Upon successful completion of all components of the program, the graduate must pass the State competency exam to become certified as a Nursing Assistant in the State of Illinois.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For further information about the BNA Program at Malcolm X College, visit the program's webpage (https://www.ccc.edu/colleges/malcolm-x/departments/pages/-nursing-assistant-(basic)-.aspx).

For further information about the BNA Program at Kennedy-King College, visit the program's webpage.

Program Requirements

Code	Title	Hours
Required Program Core		
STHLTH 624	BNA Fundamentals/Clinical	8
Total Hours		**8**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate in Basic Nursing Assistant. If this pathway is followed as outlined, you will earn a Basic Certificate (BC). It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
STHLTH 624	BNA Fundamentals/Clinical	8
	Hours	**8**
	Total Hours	**8**

Choose your courses with your College Advisor.

Admissions Requirements

- Eligible for ENGLISH 96 Aligned Reading and Composition#and READING 125 Developmental Reading Skills II
- Eligible for MATH 98 Beginning Algebra with Geometry or higher
- Submit completed medical examination documentation
- For **Malcolm X**:
  Submitofficial/sealed college transcripts to**Malcolm X College Registrar's Office (required). Official transcripts located at another CCC campus will not transfer to the Malcolm X College Registrar's Office.** Please allow yourself extra time, as international transcripts take longer to receive.
- For **Kennedy-King**:
  Submitofficial/sealed college transcripts to**Kennedy-King College Registrar's Office (required). Official transcripts located at another CCC campus will not transfer to the Kennedy-King College Registrar's**

Office. Please allow yourself extra time, as international transcripts take longer to receive.

- It is the**applicant's responsibility**#to ensure that all submitted transcripts have been evaluated and posted by a CCC Registrar (or their designee) on the student's PeopleSoft academic history.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Nursing Assistants

Job Description

Provide or assist with basic care or support under the direction of onsite licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,949
Median 50th Percentile	$47,742
Senior-Level 90th Percentile	$54,467

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$26

Annual Job Openings

3879 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.36%
A certificate	23.98%
Some college	12.20%
An Associate degree	9.82%
A Bachelor's degree	6.10%
A Master's or Professional degree	6.55%
A Doctoral degree or more	0.00%

12.65% continue their education beyond an associate degree

Home Health Aides

Job Description

Monitor the health status of an individual with disabilities or illness, and address their health-related needs, such as changing bandages, dressing wounds, or administering medication. Work is performed under the direction of offsite or intermittent onsite licensed nursing staff. Provide assistance with routine healthcare tasks or activities of daily living, such as feeding, bathing, toileting, or ambulation. May also help with tasks such as preparing meals, doing light housekeeping, and doing laundry depending on the patient's abilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,634
Median 50th Percentile	$34,800
Senior-Level 90th Percentile	$40,657

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$17
Senior-Level 90th Percentile	$20

Annual Job Openings

13256 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	63.23%
A certificate	20.90%
Some college	7.02%
An Associate degree	8.84%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Personal Care Aides

Job Description

Provide personalized assistance to individuals with disabilities or illness who require help with personal care and activities of daily living support (e.g., feeding, bathing, dressing, grooming, toileting, and ambulation). May also provide help with tasks such as preparing meals, doing light housekeeping, and doing laundry. Work is performed in various settings depending on the needs of the care recipient and may include locations such as their home, place of work, out in the community, or at a daytime nonresidential facility.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,634
Median 50th Percentile	$34,800
Senior-Level 90th Percentile	$40,657

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$17
Senior-Level 90th Percentile	$20

Annual Job Openings

13256 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	65.29%
A certificate	6.24%
Some college	5.99%
An Associate degree	22.48%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Orderlies

Job Description

Transport patients to areas such as operating rooms or x-ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment. Psychiatric orderlies are included in Psychiatric Aides.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,124
Median 50th Percentile	$41,477
Senior-Level 90th Percentile	$49,295

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$20
Senior-Level 90th Percentile	$24

Annual Job Openings

178 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	95.87%
A certificate	4.13%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Business Administration/General Business, Advanced Certificate

College(s): TR*

Program Code: 0042

**Beginning Summer 2016, this program is no longer accepting new students. Please refer to CCC's other Business offerings.*

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 211	Business Law I	3
or BUSINES 214	The Legal & Social Environment of Business	
CIS 120	Introduction to Computer Applications	3
ECON 201	Principles Of Economics I	3
Program Electives		
Select a minimum of 10 credit hours of the following or others as recommended by a College Advisor.		10
BUSINES 203	Intro Cost Accounting	
BUSINES 204	Computer Applications Intermediate Accounting	
BUSINES 205	Intermediate Accounting	
BUSINES 212	Business Law II	
BUSINES 230	E-Business Marketing	
BUSINES 231	Marketing	
BUSINES 232	Fundamentals of International Business	
BUSINES 241	Introduction To Finance	
BUSINES 269	Principles Of Management	
CIS 101	Computer Science 101	
ECON 201	Principles Of Economics I	
ECON 202	Principles Of Economics II	
ENTRE 201	Introduction to Entrepreneurship	
ENTRE 202	Opportunity Recognition and Development	
Total Hours		**30**

Cannabis Applied Studies, Basic Certificate

College(s): OH, WR

Program Code: 0463

The Basic Certificate (BC) in Applied Cannabis Studies purpose is to prepare individuals for a range of entry into the cannabis industry, from entry to mid-level employment opportunities. Individuals will gain hands-on experience with a solid scientific foundation for understanding plant science and the uniqueness of the Cannabaceae family. Upon completion, individuals will gain training in professionalism specific to the cannabis industry and will be prepared to enter the industry immediately as a budtender, plant propagation manager, retail, or the various ancillary businesses of the industry. Individuals will also have the opportunity to continue their educational pursuits into the Advanced Certificate in Cannabis Processing Technician and the Associates of Applied Science in Cannabis Studies.

Industry standards require students to be at least 21 years of age to work in a dispensary and other cannabis industry entities. Students may take coursework prior to turning 21, but should be aware that they will not be able to work in the cannabis industry until they are 21.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CANBS 110	Introduction to Cannabis [1]	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 115	Cannabis Quality and Compliance [1]	3
CIS 120	Introduction to Computer Applications	3
HORTIC 104	Plant Propagation [1]	4
Total Hours		**15**

[1] Concurrent enrollment is required in CANBS 110, CANBS 115, and HORTIC 104.

Pathway

This is an **example course sequence** for students interested in earning a certificate in Applied Cannabis Studies. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Applied Cannabis Studies. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

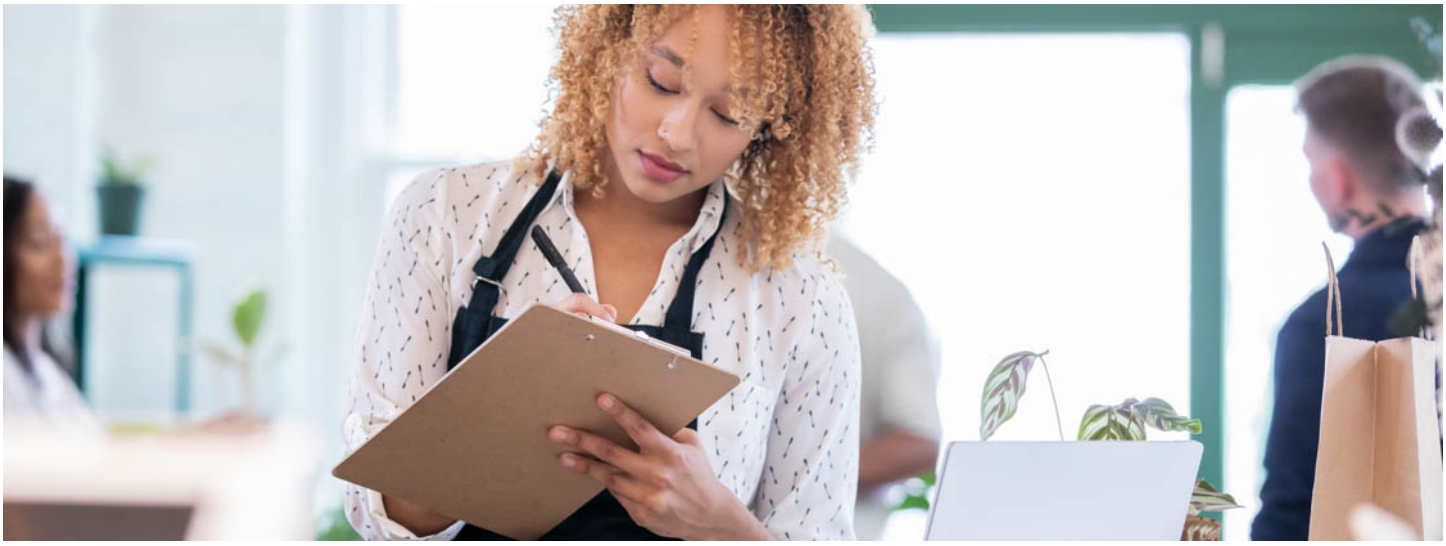
All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CANBS 110	Introduction to Cannabis [1]	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 115	Cannabis Quality and Compliance [1]	3
CIS 120	Introduction to Computer Applications	3
HORTIC 104	Plant Propagation [1]	4
	Hours	**15**
	Total Hours	**15**

[1] Concurrent enrollment is required in CANBS 110, CANBS 115, and HORTIC 104.

CITY COLLEGES OF CHICAGO

Cannabis Dispensary Operations Specialist, Basic Certificate



College(s): OH

Program Code: 0436

The Cannabis Dispensary Operations Certificate prepares students to work in a licensed cannabis dispensary and introduces students to the basics of legally dispensing cannabis in a licensed setting. Students will gain an understanding of the legal environment of dispensary operations in alignment with state and federal laws that regulate cannabis distribution to clients. Students will acquire skills to interact with and educate cannabis clients in a regulated environment, as well as obtain the foundational knowledge to pursue additional careers in the cannabis industry.

Industry standards require students to be at least 21 years of age to work in a dispensary and other cannabis industry entities. Students may take coursework prior to turning 21, but should be aware that they will not be able to work in the cannabis industry until they are 21.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
CANBS 110	Introduction to Cannabis	3
CANBS 111	Cannabis and the Law	3
CANBS 112	Dispensary Operations	4
SCML 154	Customer Service Operations	3
Total Hours		**16**

Cannabis Processing Technician, Advanced Certificate

College(s): OH, WR

Program Code: 0464

The Advanced Certificate (AC) in Cannabis Processing Technician purpose is to permit individuals to continue in the Cannabis Studies pathway by pursuing the advanced certificate that allows them to gain an understanding of the scientific and processing components of the industry, including the cultivation and the social implications of the cannabis industry from a historical, structural and advocacy lens. Individuals will be prepared to advance in the cannabis industry from an equitable perspective. In addition, processing and extraction techniques are taught in this certificate and can lead towards careers in cultivation facilities or labs.

Industry standards require students to be at least 21 years of age to work in a dispensary and other cannabis industry entities. Students may take coursework prior to turning 21, but should be aware that they will not be able to work in the cannabis industry until they are 21.

Future Ready Eligible

Program Requirements

Code	Title	Hours
General Education Courses		
ENGLISH 101	Composition	3
or SOC 241	Institutional Racism	
Required Program Core		
CANBS 110	Introduction to Cannabis	3
CANBS 111	Cannabis and the Law	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 114	Restorative Justice in Cannabis	3
CANBS 115	Cannabis Quality and Compliance	3
CANBS 201	Cannabis Processing	6
CIS 120	Introduction to Computer Applications	3
HORTIC 104	Plant Propagation	4
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning an advanced certificate in Cannabis Processing Technician. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Applied Cannabis Studies and an Advanced Certificate (AC) in Cannabis Processing Technician. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CANBS 110	Introduction to Cannabis [1]	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 115	Cannabis Quality and Compliance [1]	3
CIS 120	Introduction to Computer Applications	3
HORTIC 104	Plant Propagation [1]	4
	Hours	**15**
Semester 2		
CANBS 111	Cannabis and the Law	3
CANBS 114	Restorative Justice in Cannabis	3
CANBS 201	Cannabis Processing	6

ENGLISH 101 or SOC 241	Composition or Institutional Racism	3
	Hours	**15**
	Total Hours	**30**

[1] Concurrent enrollment is required for CANBS 110, CANBS 115, and HORTIC 104.

Cannabis Studies, Associate in Applied Science

College(s): OH, WR

Program Code: 0465

The Associates of Applied Science (AAS) in Cannabis Studies purpose is to complete the pathway and will award individuals with a formal degree in Applied Cannabis Studies. The completion of this pathway prepares individuals to work in the various scientific aspects of the cannabis industry as well as the legal, compliance, cultivation, advocacy and business aspects of the industry. Individuals will have the opportunity to advance directly into the industry or pursue STEM related curriculum at a 4-year institution. There is also a possibility of credit transfer based on individual evaluation of the student's choice of institution.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
BOTANY 201	General Botany I	4
Mathematics course		3
PSYCH 201	General Psychology	3
SOC 241	Institutional Racism (HD)	3
Required Program Core		
CIS 120	Introduction to Computer Applications	3
CANBS 110	Introduction to Cannabis	3
CANBS 111	Cannabis and the Law	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 114	Restorative Justice in Cannabis	3
CANBS 115	Cannabis Quality and Compliance	3
CANBS 201	Cannabis Processing	6
CANBS 202	Hemp Horticulture and Processing	3
CANBS 203	Introduction to Medicinal Cannabis	3
CANBS 204	Cannabis Science	3
HORTIC 104	Plant Propagation	4
Program Electives		
Select at least 9 credit hours from the following courses:		9
BUSINES 111	Introduction To Business [1]	
CANBS 112	Dispensary Operations [1]	
SCML 154	Customer Service Operations [1]	
AFRO AM 101	Introduction to African-American Studies	
BIOLOGY 121	Biology I	
CHEM 121	Basic Chemistry I	
CHEM 201	General Chemistry I	
PHIL 107	Ethics	
PSYCH 209	Black Psychology	
SOC 201	Intro To the Study Of Society	
SOC 211	Race & Ethnic Relations	
SPEECH 101	Fundamentals of Speech Communication	
Course(s) in Business (BUSINES), Entrepreneurship (ENTRE), and/or Supply Chain Management and Logistics (SCML)		
Total Hours		**61**

[1] Students wishing to additionally earn the Cannabis Dispensary Operations Specialist Basic Certificate (p. 112) should select BUSINES 111 Introduction To Business, CANBS 112 Dispensary Operations, and SCML 154 Customer Service Operations as their electives.

Pathway

This is an **example course sequence** for students interested in earning a certificate in Applied Cannabis Studies. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Applied Cannabis Studies, an Advanced Certificate (AC) in Cannabis Processing Technician, and an Associate in Applied Science (AAS) in Cannabis Studies. Depending on your chosen electives, you may also earn a Basic Certificate (BC) in Cannabis Dispensary Operations Specialist. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Pathway for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CANBS 110	Introduction to Cannabis [1]	3
CANBS 113	Entering the Cannabis Industry	2
CANBS 115	Cannabis Quality and Compliance [1]	3
CIS 120	Introduction to Computer Applications	3
HORTIC 104	Plant Propagation [1]	4
	Hours	**15**
Semester 2		
CANBS 111	Cannabis and the Law	3
CANBS 114	Restorative Justice in Cannabis	3
CANBS 201	Cannabis Processing	6
SOC 241 or ENGLISH 101	Institutional Racism [1] or Composition	3
	Hours	**15**
Semester 3		
CANBS 203	Introduction to Medicinal Cannabis	3
ENGLISH 101 or SOC 241	Composition [1] or Institutional Racism	3
PSYCH 201	General Psychology [1]	3
Mathematics course [1]		3
Program Elective (p. 116) [2]		3-5
	Hours	**15-17**
Semester 4		
BOTANY 201	General Botany I	4
CANBS 202	Hemp Horticulture and Processing	3
CANBS 204	Cannabis Science	3
Program Elective (p. 116) [2]		3-5
Program Elective (p. 116) [2]		3-5
	Hours	**16-20**
	Total Hours	**61-67**

[1] General Education Requirements
[2] Program Elective (p. 116)

pROGRAM eLECTIVES

Code	Title	Hours
BUSINES 111	Introduction To Business [1]	3
CANBS 112	Dispensary Operations [1]	4
SCML 154	Customer Service Operations [1]	3
AFRO AM 101	Introduction to African-American Studies	3
BIOLOGY 121	Biology I	5
CHEM 121	Basic Chemistry I	4
CHEM 201	General Chemistry I	5
PHIL 107	Ethics	3
PSYCH 209	Black Psychology	3
SOC 201	Intro To the Study Of Society	3
SPEECH 101	Fundamentals of Speech Communication	2-3
Course(s) in Business (BUSINES), Entrepreneurship (ENTRE), and/or Supply Chain Management and Logistics (SCML)		

[1] Students wishing to additionally earn the Cannabis Dispensary Operations Specialist Basic Certificate (p. 112) should select BUSINES 111 Introduction To Business, CANBS 112 Dispensary Operations, and SCML 154 Customer Service Operations as their electives.

Choose your courses with your College Advisor.

Chemical Laboratory Technology, Associate in Applied Science

College(s): TR

Program Code: 0137

The Associate in Applied Science degree program for Chemical Laboratory Technology focuses on the study of the development, production and utilization of industrial chemicals, and methods used in modern chemical laboratories. The program can lead to employment as a chemical lab technician (working under supervision of senior technicians), engineer, or scientist in production or testing, as well as in commercial utilization of chemicals and chemical products.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 140	College Algebra	4
Fine Arts & Humanities course		3
Social and Behavioral Sciences course		3
General Education Human Diversity course		3
Required Program Core		
CHEM 201	General Chemistry I	5
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
CHEM 217	Intro Instrumental Analysis	4
MATH 207	Calculus & Analytic Geometry I	5
Program Electives		
Select a minimum of 16 credit hours of the following:		16
CIS 120	Introduction to Computer Applications	
MATH 141	Plane Trigonometry	
MATH 208	Calculus & Analytic Geometry II	
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	
Total Hours		**63**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Chemical Technicians

Job Description

Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$49,948
Median 50th Percentile	$65,696
Senior-Level 90th Percentile	$106,278

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$32
Senior-Level 90th Percentile	$51

Annual Job Openings

65 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	33.34%
A certificate	0.00%
Some college	22.42%
An Associate degree	0.50%
A Bachelor's degree	43.74%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

43.74% continue their education beyond an associate degree

Chemical Equipment Operators and Tenders

Job Description

Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,384
Median 50th Percentile	$61,490
Senior-Level 90th Percentile	$84,714

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$30
Senior-Level 90th Percentile	$41

Annual Job Openings

52 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	50.59%
A certificate	13.50%
Some college	20.64%
An Associate degree	13.50%
A Bachelor's degree	1.77%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.77% continue their education beyond an associate degree

Chemical Plant and System Operators

Job Description

Control or operate entire chemical processes or system of machines.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,277
Median 50th Percentile	$62,663
Senior-Level 90th Percentile	$75,176

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$30
Senior-Level 90th Percentile	$36

Annual Job Openings

7 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	61.53%
A certificate	0.97%
Some college	0.51%
An Associate degree	0.21%
A Bachelor's degree	36.27%
A Master's or Professional degree	0.30%
A Doctoral degree or more	0.21%

36.78% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Child Development: Early Childhood Education, Basic Certificate

College(s): DA, HW, KK, MX, OH, TR

Program Code: 0277

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 120	Intro To Early Childhood Education Group Care	3
CHLD DV 149	Creative Activities For Young Children	3
CHLD DV 262	Child, Family & Community Relations	3
Total Hours		**16**

All course require completion of clinical experience/observation hours

Future Ready Eligible

Pathway

This is an **example course sequence** for students interested in pursuing Early Childhood Education. This does not represent a contract or guarantee course availability. If this five-semester pathway is followed as outlined, students will earn a Basic Certificate (BC) in Child Development: Early Childhood Education. This pathway is a great option for students intending to go to work in an Early Childhood setting, or looking to pursue a bachelor's degree program or a teacher certification bachelor degree program in Early Childhood Education. Please see your advisor for more specific information.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 120	Intro To Early Childhood Education Group Care	3
	Hours	**6**
Semester 2		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 149	Creative Activities For Young Children	3
CHLD DV 262	Child, Family & Community Relations	3
	Hours	**10**
	Total Hours	**16**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

Job Description

Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary

responsibility for the design and implementation of educational programs and services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,050
Median 50th Percentile	$36,156
Senior-Level 90th Percentile	$47,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$23

Annual Job Openings

3024 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	28.34%
A certificate	19.89%
Some college	17.12%
An Associate degree	3.24%
A Bachelor's degree	16.28%
A Master's or Professional degree	15.14%
A Doctoral degree or more	0.00%

31.42% continue their education beyond an associate degree

Childcare Workers

Job Description

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$23,503
Median 50th Percentile	$31,520
Senior-Level 90th Percentile	$50,192

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$15
Senior-Level 90th Percentile	$24

Annual Job Openings

4082 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	52.82%
A certificate	5.59%
Some college	10.17%
An Associate degree	22.71%
A Bachelor's degree	8.71%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

8.71% continue their education beyond an associate degree

Child Development: Early Childhood Education, Advanced Certificate

College(s): DA, HW, KK, MX, OH, TR

Program Code: 0282

Child Development: Early Childhood Education Advanced Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
Any General Education Mathematics or Life Sciences or Physical Sciences course		3
Any General Education course		3
CHLD DV 101	Human Growth & Development I [1]	4
CHLD DV 107	Health Safety And Nutrition [1]	3
CHLD DV 120	Intro To Early Childhood Education Group Care [1]	3
CHLD DV 149	Creative Activities For Young Children [1]	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families [1]	3
CHLD DV 262	Child, Family & Community Relations [1]	3
Any Child Development (0090) course		3
Total Hours		**31**

[1] Requires completion of clinical experience/observation hours

Pathway

This is an **example course sequence** for students interested in pursuing Early Childhood Education. This does not represent a contract or guarantee course availability. If this five-semester pathway is followed as outlined, students will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Child Development: Early Childhood Education. This pathway is a great option for students intending to go to work in an Early Childhood setting, or looking to pursue a bachelor's degree program or a teacher certification bachelor degree program in Early Childhood Education. Please see your advisor for more specific information.

Semester-by Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 120	Intro To Early Childhood Education Group Care	3
ENGLISH 101	Composition	3
Select one Mathematics or Life Sciences or Physical Sciences course [1]		3
	Hours	**12**
Semester 2		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 149	Creative Activities For Young Children	3
CHLD DV 262	Child, Family & Community Relations	3
Select one of the following:		3
ANTHRO 202	Cultural Anthropology (HD)	
Social and Behavioral Sciences course (HD)		
	Hours	**13**
Semester 3		
CHLD DV 109	Language & Literacy Development in Early Childhood [2]	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families	3
	Hours	**6**
	Total Hours	**31**

[1] MATH 121 Math For Elementary Teachers I is recommended.
[2] Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

Job Description

Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,050
Median 50th Percentile	$36,156
Senior-Level 90th Percentile	$47,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$23

Annual Job Openings

3024 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	28.34%
A certificate	19.89%
Some college	17.12%
An Associate degree	3.24%
A Bachelor's degree	16.28%
A Master's or Professional degree	15.14%
A Doctoral degree or more	0.00%

31.42% continue their education beyond an associate degree

Childcare Workers

Job Description

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$23,503
Median 50th Percentile	$31,520
Senior-Level 90th Percentile	$50,192

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$15
Senior-Level 90th Percentile	$24

Annual Job Openings

4082 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	52.82%
A certificate	5.59%
Some college	10.17%
An Associate degree	22.71%
A Bachelor's degree	8.71%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

8.71% continue their education beyond an associate degree

Child Development:Early Childhood Education, Associate in Applied Science

College(s): DA, HW, KK, MX, OH, TR

Program Code: 0278

The Associate in Applied Science degree program in Child Development: Early Childhood Education provides child development theory and skills for the student who intends to work immediately in a pre-school program as a teacher or teacher assistant in public and private preschools, child care centers, or nursery schools as well as prepare students to work as teacher aides and activities supervisors.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		12
Required Program Core		
CHLD DV 101	Human Growth & Development I [2]	4
CHLD DV 107	Health Safety And Nutrition [2]	3
CHLD DV 109	Language & Literacy Development in Early Childhood [2]	3
CHLD DV 120	Intro To Early Childhood Education Group Care [2]	3
CHLD DV 143	Science & Math for Young Children [2]	3
CHLD DV 149	Creative Activities For Young Children [2]	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families [2]	3
CHLD DV 258	Principles of Early Childhood Care and Education [2]	4
CHLD DV 262	Child, Family & Community Relations (HD) [2]	3
Required Work-Based Learning Courses		
CHLD DV 259	Practicum In Early Childhood Education [2]	6
Program Electives		
Select a minimum of 12 credit hours of the following along with others as recommended by a College Advisor:		12
CHLD DV 102	Human Growth & Development II	
CHLD DV 142	Methods & Materials for Infant Toddler Care [2,3]	
CHLD DV 205	Development of Exceptional Child	
CHLD DV 248	Principles & Practice of Infant & Toddler Care [2,3]	
CIS 120	Introduction to Computer Applications	
Total Hours		**62**

1 Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social and Behavioral Sciences, or Physical Sciences and Life Sciences.
2 Requires completion of clinical experience/observation hours
3 Select these electives to earn the Gateways to Opportunity Infant Toddler Credential

Pathway

This is an **example course sequence** for students interested in pursuing Early Childhood Education. This does not represent a contract or guarantee course availability. If this five-semester pathway is followed as outlined, students will earn a Basic Certificate (BC), an Advanced Certificate (AC), and an Associate in Applied Science (AAS) Degree in Child Development: Early Childhood Education. This pathway is a great option for students intending to go to work in an Early Childhood setting, or looking to pursue a bachelor's degree program or a teacher certification bachelor degree program in Early Childhood Education. Please see your advisor for more specific information.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 120	Intro To Early Childhood Education Group Care	3
ENGLISH 101	Composition [1]	3
Select one Mathematics or Physical Sciences or Life Sciences course [1,2]		3
	Hours	**12**
Semester 2		
CHLD DV 101	Human Growth & Development I	4

CHLD DV 149	Creative Activities For Young Children	3
CHLD DV 262	Child, Family & Community Relations	3
Select one of the following:		3
ANTHRO 202	Cultural Anthropology (HD) [1]	
Social and Behavioral Sciences course (HD) [1]		
	Hours	**13**
Semester 3		
CHLD DV 109	Language & Literacy Development in Early Childhood	3
CHLD DV 143	Science & Math for Young Children	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families	3
LIT 130	Children's Literature [1]	3
	Hours	**12**
Semester 4		
CHLD DV 258	Principles of Early Childhood Care and Education	4
Select one of the following:		3-4
CHLD DV 102	Human Growth & Development II [3]	
MATH 122	Math For Elementary Teachers II [3]	
Elective course (p. 125) [3]		
Select one of the following:		3
CHLD DV 142	Methods & Materials for Infant Toddler Care [3]	
Elective course (p. 125) [3]		
Select one of the following:		3
PSYCH 201	General Psychology [1]	
POL SCI 201	The National Government [1]	
HISTORY 111	History of American People To 1865 [1]	
HISTORY 112	History of American People From 1865 [1]	
General Education course [1]		
	Hours	**13-14**
Semester 5		
CHLD DV 259	Practicum In Early Childhood Education	6
Select one of the following:		3
CHLD DV 205	Development of Exceptional Child [3]	
Elective course [3]		
Select one of the following:		3-4
CHLD DV 248	Principles & Practice of Infant & Toddler Care [3]	
Elective course (p. 125) [3]		
	Hours	**12-13**
	Total Hours	**62-64**

[1] General Education Requirement
[2] MATH 121 Math For Elementary Teachers I is recommended.
[3] Program Elective (p. 125)

Program Elective

The courses listed below in the Child Development and Computer Information Systems disciplines are recommended for elective credit in addition to other courses recommended by a College Advisor.

Code	Title	Hours
CHLD DV 102	Human Growth & Development II	3
CHLD DV 142	Methods & Materials for Infant Toddler Care	3
CHLD DV 205	Development of Exceptional Child	3
CHLD DV 248	Principles & Practice of Infant & Toddler Care	4
CIS 120	Introduction to Computer Applications	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Preschool Teachers, Except Special Education

Job Description

Instruct preschool-aged students, following curricula or lesson plans, in activities designed to promote social, physical, and intellectual growth.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$33,113
Median 50th Percentile	$39,657
Senior-Level 90th Percentile	$62,305

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$30

Annual Job Openings

1309 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	28.75%
A certificate	10.34%
Some college	12.17%
An Associate degree	11.55%
A Bachelor's degree	25.14%
A Master's or Professional degree	12.04%
A Doctoral degree or more	0.00%

37.18% continue their education beyond an associate degree

Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

Job Description

Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,050
Median 50th Percentile	$36,156
Senior-Level 90th Percentile	$47,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$23

Annual Job Openings

3024 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	28.34%
A certificate	19.89%
Some college	17.12%
An Associate degree	3.24%
A Bachelor's degree	16.28%
A Master's or Professional degree	15.14%
A Doctoral degree or more	0.00%

31.42% continue their education beyond an associate degree

Childcare Workers

Job Description

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$23,503
Median 50th Percentile	$31,520
Senior-Level 90th Percentile	$50,192

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$15
Senior-Level 90th Percentile	$24

Annual Job Openings

4082 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	52.82%
A certificate	5.59%
Some college	10.17%
An Associate degree	22.71%
A Bachelor's degree	8.71%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

8.71% continue their education beyond an associate degree

Child Development: Infant/Toddler, Advanced Certificate

College(s): DA, HW, KK, MX, OH, TR

Program Code: 0286

The Advanced Certificate program in Child Development: Infant/Toddler prepares students for employment in center or home-based programs that provide child care for infants and toddlers. The study of child development theory and skills is necessary for those interested in becoming early childhood educators for infants and toddlers.

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I [1]	4
CHLD DV 107	Health Safety And Nutrition [1]	3
CHLD DV 109	Language & Literacy Development in Early Childhood [1]	3
CHLD DV 120	Intro To Early Childhood Education Group Care [1]	3
CHLD DV 142	Methods & Materials for Infant Toddler Care [1]	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families [1]	3
CHLD DV 248	Principles & Practice of Infant & Toddler Care [1]	4
Required Work-Based Learning Courses		
CHLD DV 259	Practicum In Early Childhood Education [1]	6
Program Electives		
CHLD DV 262 or CHLD DV 23(	Child, Family & Community Relations [1] Introduction to Early Intervention	3
Total Hours		**32**

[1] Requires completion of clinical experience/observation hours

Pathway

This is an **example course sequence** for students interested in earning an Advanced Certificate (AC) in Child Development: Early Childhood Education Infant/Toddler. It does not represent a contract, nor does it guarantee course availability. Advanced Certificate (AC) in Child Development: Early Childhood Education Infant/Toddler.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CHLD DV 101	Human Growth & Development I	4
CHLD DV 107	Health Safety And Nutrition	3
CHLD DV 120	Intro To Early Childhood Education Group Care	3
	Hours	**10**
Semester 2		
CHLD DV 109	Language & Literacy Development in Early Childhood	3
CHLD DV 142	Methods & Materials for Infant Toddler Care	3
CHLD DV 201	Observation, Assessment, & Documentation to Support Young Children & Families	3
CHLD DV 230 or CHLD DV 262	Introduction to Early Intervention [1] or Child, Family & Community Relations	3
	Hours	**12**
Semester 3		
CHLD DV 248	Principles & Practice of Infant & Toddler Care	4
CHLD DV 259	Practicum In Early Childhood Education	6
	Hours	**10**
	Total Hours	**32**

[1] Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education

Job Description

Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,050
Median 50th Percentile	$36,156
Senior-Level 90th Percentile	$47,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$23

Annual Job Openings

3024 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	28.34%
A certificate	19.89%
Some college	17.12%
An Associate degree	3.24%
A Bachelor's degree	16.28%
A Master's or Professional degree	15.14%
A Doctoral degree or more	0.00%

31.42% continue their education beyond an associate degree

Childcare Workers

Job Description

Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$23,503
Median 50th Percentile	$31,520
Senior-Level 90th Percentile	$50,192

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$15
Senior-Level 90th Percentile	$24

Annual Job Openings

4082 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	52.82%
A certificate	5.59%
Some college	10.17%
An Associate degree	22.71%
A Bachelor's degree	8.71%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

8.71% continue their education beyond an associate degree

Class C Driver Training, Basic Certificate

College(s): OH

Program Code: 0405

The Class C Driver Training program is designed to provide students with an in-depth coverage of the laws, rules and regulations that are applicable to the operation of both commercial and non-commercial motor vehicles. Students will gain knowledge and skills in the areas of vehicle inspection, pre-testing, skill operations and defensive driving techniques. Students will be eligible to apply for positions such as delivery driver, para-transit driver and/or medi-car driver.

Program Requirements

Code	Title	Hours
Required Program Core		
STTRDE 145	Class C Driver Training	3
Total Hours		**3**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heavy and Tractor-Trailer Truck Drivers

Job Description

Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,390
Median 50th Percentile	$58,673
Senior-Level 90th Percentile	$97,999

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$28
Senior-Level 90th Percentile	$47

Annual Job Openings

3586 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.24%
A certificate	18.51%
Some college	1.24%
An Associate degree	0.00%
A Bachelor's degree	0.00%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Light Truck Drivers

Job Description

Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,460
Median 50th Percentile	$48,172
Senior-Level 90th Percentile	$92,807

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$23
Senior-Level 90th Percentile	$45

Annual Job Openings

2923 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	98.56%
A certificate	0.00%
Some college	0.27%
An Associate degree	1.17%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Cloud Computing, Associate in Applied Science

College(s): TR, WR

Program Code: 0051

The Associate Applied Science degree in Cloud Computing is a comprehensive program designed to equip students with the skills and knowledge necessary to thrive in the dynamic field of cloud computing. Students will gain hands-on experience with the latest technologies and best practices in the industry, preparing them for a variety of roles in the rapidly evolving cloud computing landscape. This degree offers a combination of theoretical understanding and practical experience, covering key areas such as cloud administration, development, security, architecture, and data management. This program also serves as a foundation to further other academic pursuits or for career advancement in the field.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Fine Arts & Humanities Course		3
Social and Behavioral Sciences Course		3
Physical Sciences / Life Sciences Course		3
Mathematics General Education Course (MATH 125 recommended)		3
Required Program Core		
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
CIS 116	Operating System I	3
CIS 124	Introduction to Cloud Computing	3
CIS 146	Python Programming I	3
CIS 224	Cloud Architecture	3
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
NET TEC 101	Client-Server Database I	3
NET TEC 121	Internetworking I	3
or COMPSFI 101	Networking Essentials	
NET TEC 240	Operating Systems/Server I	3
Required Work-Based Learning		
CIS 260	Computer Information Systems Field Project	3
or CIS 265	Computer Information Systems Internship	
Program Electives		
Select a minimum of 9 hours of program electives		9
BUSINES 111	Introduction To Business	
CIS 142	C++ Object Oriented Programming I	
CIS 144	Java Object Oriented Programming I	
CIS 181	Web Development I/Basic Web Technologies	
CIS 182	Web Development II/Client Side Scripting	
CIS 242	C++ Object Oriented Programming II	
CIS 244	Java Object Oriented Programming II	
CIS 246	Python Programming II	
CIS 281	Web Development III/Server Side Programming	
COMPSFI 101	Networking Essentials	
COMPSFI 205	Cyber Forensics	
COMPSFI 215	Information Security Domain	
COMPSFI 216	Info Security Program Management	
COMPSFI 231	Internetworking Security	
NET TEC 121	Internetworking I	
NET TEC 122	Internetworking II	
Total Hours		**60**

One course must satisfy the Human Diversity (HD) (p. 605) requirement.

Pathway

This is an example course sequence for students interested in pursuing Cloud Computing. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC), and an Associate in Applied Science (AAS) in Cloud Computing.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
ENGLISH 101	Composition [1]	3
NET TEC 121 or COMPSFI 101	Internetworking I or Networking Essentials	3
Mathematics General Education Course (MATH 125 recommended) [1]		3-4
	Hours	**15-16**
Semester 2		
CIS 116	Operating System I	3
CIS 124	Introduction to Cloud Computing	3
CIS 146	Python Programming I	3
COMPSFI 102	Information Security Essentials	3
Fine Arts & Humanities course (HD) [1]		3
	Hours	**15**
Semester 3		
CIS 224	Cloud Architecture	3
CIS 255	Operating Systems II	3
NET TEC 240	Operating Systems/Server I	3
Social and Behavioral Sciences Course [1]		3
Program Elective (p. 132)		3
	Hours	**15**
Semester 4		
CIS 260 or CIS 265	Computer Information Systems Field Project or Computer Information Systems Internship	3
NET TEC 101	Client-Server Database I	3
Physical Sciences/Life Sciences Course [1]		3
Program Elective (p. 132)		3
Program Elective (p. 132)		3
	Hours	**15**
	Total Hours	**60-61**

[1] General Education course

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 246	Python Programming II	3
CIS 281	Web Development III/Server Side Programming	3
COMPSFI 101	Networking Essentials	3
COMPSFI 205	Cyber Forensics	3
COMPSFI 215	Information Security Domain	3
COMPSFI 216	Info Security Program Management	3
COMPSFI 231	Internetworking Security	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Computer Network Support Specialists

Job Description

Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$49,472
Median 50th Percentile	$71,279
Senior-Level 90th Percentile	$119,728

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$34
Senior-Level 90th Percentile	$58

Annual Job Openings

216 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.23%
A certificate	10.16%
Some college	13.63%
An Associate degree	21.68%
A Bachelor's degree	48.77%
A Master's or Professional degree	1.53%
A Doctoral degree or more	0.00%

50.30% continue their education beyond an associate degree

Computer Systems Analysts

Job Description

Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$56,504
Median 50th Percentile	$101,647
Senior-Level 90th Percentile	$148,789

Hourly Wages

Entry-Level 10th Percentile	$27
Median 50th Percentile	$49
Senior-Level 90th Percentile	$72

Annual Job Openings

570 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.77%
A certificate	0.54%
Some college	4.62%
An Associate degree	50.71%
A Bachelor's degree	41.93%
A Master's or Professional degree	1.42%
A Doctoral degree or more	0.00%

43.35% continue their education beyond an associate degree

Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
An Associate degree	12.87%
A Bachelor's degree	75.16%
A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

Computer Network Architects

Job Description

Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets,

extranets, and other data communications networks. Perform network modeling, analysis, and planning, including analysis of capacity needs for network infrastructures. May also design network and computer security measures. May research and recommend network and data communications hardware and software.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$99,332
Median 50th Percentile	$146,795
Senior-Level 90th Percentile	$201,596

Hourly Wages

Entry-Level 10th Percentile	$48
Median 50th Percentile	$71
Senior-Level 90th Percentile	$97

Annual Job Openings

160 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.00%
A certificate	15.00%
Some college	0.00%
An Associate degree	15.00%
A Bachelor's degree	60.00%
A Master's or Professional degree	5.00%
A Doctoral degree or more	0.00%

65.00% continue their education beyond an associate degree

Database Administrators

Job Description

Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. Identify, investigate, and resolve database performance issues, database capacity, and database scalability. May plan, coordinate, and implement security measures to safeguard computer databases.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,942
Median 50th Percentile	$107,410
Senior-Level 90th Percentile	$175,968

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$52
Senior-Level 90th Percentile	$85

Annual Job Openings

71 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.15%
Some college	2.21%
An Associate degree	3.46%
A Bachelor's degree	92.89%
A Master's or Professional degree	1.29%
A Doctoral degree or more	0.00%

94.18% continue their education beyond an associate degree

Database Architects

Job Description

Design strategies for enterprise databases, data warehouse systems, and multidimensional networks. Set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$84,281
Median 50th Percentile	$140,242
Senior-Level 90th Percentile	$203,330

Hourly Wages

Entry-Level 10th Percentile	$41
Median 50th Percentile	$67
Senior-Level 90th Percentile	$98

Annual Job Openings

50 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	4.76%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	80.95%
A Master's or Professional degree	14.29%
A Doctoral degree or more	0.00%

95.24% continue their education beyond an associate degree

Cloud Computing, Advanced Certificate

College(s): TR, WR

Program Code: 0052

The Advanced Certificate in Cloud Computing serves as a gateway to sustainable careers in cloud computing for students new to the field. The program is an introduction to computer technology and is structured to provide students with the skills necessary to confidently excel in the rapidly evolving field of cloud technology. This comprehensive program covers multiple topics including programming fundamentals, basic networking, introduction to cloud services, security essentials, and server management. Students will engage in both theoretical and hands-on learning, preparing them for a variety of roles in the IT industry. The curriculum is organized to provide a deep understanding of cloud computing systems and operations – increasing employability, ensuring graduates are job-ready for positions such as Cloud Support Associates, Cloud Technicians, Junior Cloud Administrators, and more.

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
CIS 116	Operating System I	3
CIS 124	Introduction to Cloud Computing	3
CIS 146	Python Programming I	3
CIS 224	Cloud Architecture	3
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
NET TEC 121	Internetworking I	3
or COMPSFI 10	Networking Essentials	
NET TEC 240	Operating Systems/Server I	3
or NET TEC 101	Client-Server Database I	
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning a degree in Cloud Computing. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Cloud Computing.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
NET TEC 121 or COMPSFI 101	Internetworking I or Networking Essentials	3
	Hours	**9**
Semester 2		
CIS 116	Operating System I	3
CIS 124	Introduction to Cloud Computing	3
CIS 146	Python Programming I	3
COMPSFI 102	Information Security Essentials	3
	Hours	**12**
Semester 3		
CIS 224	Cloud Architecture	3
CIS 255	Operating Systems II	3
NET TEC 240	Operating Systems/Server I	3
	Hours	**9**
	Total Hours	**30**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

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Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$49,472
Median 50th Percentile	$71,279
Senior-Level 90th Percentile	$119,728

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$34
Senior-Level 90th Percentile	$58

Annual Job Openings

216 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.23%
A certificate	10.16%
Some college	13.63%
An Associate degree	21.68%
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50.30% continue their education beyond an associate degree

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Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.

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Annual Wages

Entry-Level 10th Percentile	$56,504
Median 50th Percentile	$101,647
Senior-Level 90th Percentile	$148,789

Hourly Wages

Entry-Level 10th Percentile	$27
Median 50th Percentile	$49
Senior-Level 90th Percentile	$72

Annual Job Openings

570 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.77%
A certificate	0.54%
Some college	4.62%
An Associate degree	50.71%
A Bachelor's degree	41.93%
A Master's or Professional degree	1.42%
A Doctoral degree or more	0.00%

43.35% continue their education beyond an associate degree

Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

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Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
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Annual Wages

Entry-Level 10th Percentile	$99,332
Median 50th Percentile	$146,795
Senior-Level 90th Percentile	$201,596

Hourly Wages

Entry-Level 10th Percentile	$48
Median 50th Percentile	$71
Senior-Level 90th Percentile	$97

Annual Job Openings

160 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.00%
A certificate	15.00%
Some college	0.00%

An Associate degree	15.00%
A Bachelor's degree	60.00%
A Master's or Professional degree	5.00%
A Doctoral degree or more	0.00%

65.00% continue their education beyond an associate degree

Database Administrators

Job Description

Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. Identify, investigate, and resolve database performance issues, database capacity, and database scalability. May plan, coordinate, and implement security measures to safeguard computer databases.

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Senior-Level 90th Percentile	$175,968

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$52
Senior-Level 90th Percentile	$85

Annual Job Openings

71 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.15%
Some college	2.21%
An Associate degree	3.46%
A Bachelor's degree	92.89%
A Master's or Professional degree	1.29%
A Doctoral degree or more	0.00%

94.18% continue their education beyond an associate degree

Database Architects

Job Description

Design strategies for enterprise databases, data warehouse systems, and multidimensional networks. Set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality.

Salary Based on Experience Level

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Annual Wages

Entry-Level 10th Percentile	$84,281
Median 50th Percentile	$140,242
Senior-Level 90th Percentile	$203,330

Hourly Wages

Entry-Level 10th Percentile	$41
Median 50th Percentile	$67
Senior-Level 90th Percentile	$98

Annual Job Openings

50 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	4.76%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	80.95%
A Master's or Professional degree	14.29%
A Doctoral degree or more	0.00%

95.24% continue their education beyond an associate degree

CNC Engineering Technology, Advanced Certificate

College(s): DA, WR

Program Code: 0448

This program builds on the skills attained in the Manufacturing Technology BC.#Students learn more advanced CNC operational skills, CNC G code programming and Computer Aided Drafting. #Students will have extensive hands on time operating the CNC lathes, mills other CNC machine tools including CNC fabrication equipment to gain confidence in their operation and programming skills.#CNC machining is utilized extensively in industry and operators of this equipment are highly sought after.

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 19	Welding I GMAW Manual Machining II	3
340MFGT 160	CNC II Operations and Programming	3
340MFGT 170	CAD I	3
340MFGT 210	Automated Fabrication I	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing CNC Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) in CNC Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 110	CNC I Operations	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 160	CNC II Operations and Programming	3
340MFGT 170	CAD I	3
	Hours	**12**
Semester 3		
340MFGT 210	Automated Fabrication I	3
	Hours	**3**
	Total Hours	**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Machinists

Job Description

Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,139
Median 50th Percentile	$58,644
Senior-Level 90th Percentile	$85,195

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$28
Senior-Level 90th Percentile	$41

Annual Job Openings

476 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	49.54%
A certificate	33.12%
Some college	17.34%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$46,231
Median 50th Percentile	$64,799
Senior-Level 90th Percentile	$75,697

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$36

Annual Job Openings

27 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	57.00%
A certificate	15.03%
Some college	9.13%
An Associate degree	0.00%
A Bachelor's degree	18.83%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

18.83% continue their education beyond an associate degree

Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,004
Median 50th Percentile	$50,936
Senior-Level 90th Percentile	$61,355

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$24
Senior-Level 90th Percentile	$29

Annual Job Openings

33 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	49.83%
A certificate	11.58%
Some college	28.86%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	9.62%
A Doctoral degree or more	0.10%

9.72% continue their education beyond an associate degree

Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,985
Median 50th Percentile	$57,989
Senior-Level 90th Percentile	$58,629

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$28
Senior-Level 90th Percentile	$28

Annual Job Openings

6 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	66.64%
A certificate	1.94%
Some college	12.19%
An Associate degree	12.11%
A Bachelor's degree	7.12%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

7.12% continue their education beyond an associate degree

Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,598
Median 50th Percentile	$44,711
Senior-Level 90th Percentile	$60,290

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$21
Senior-Level 90th Percentile	$29

Annual Job Openings

271 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	76.09%
A certificate	16.42%
Some college	7.49%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CNC Engineering Technology, Associate in Applied Science

College(s): DA, WR

Program Code: 0449

The Associate in Applied Science (AAS) in CNC Engineering Technology builds on the AC in CNC Engineering Technology adding in the additional materials, Computer Aided Manufacturing and Advanced Metrology skills students need when pursuing careers in advanced manufacturing.

Students in this program are looking to pursue careers leading teams and solving problems for manufacturing employers in the metal working industries that are increasingly becoming more automated and integrated with advanced technologies.

Program Requirements

Code	Title	Hours
General Education Requirements [1]		
MATH 140	College Algebra	4
ENGLISH 101	Composition	3
Social and Behavioral Sciences		3
Fine Arts/Humanities		3
Physical Sciences/Life Sciences		3
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
or 340MFGT 19	Manual Machining II	
340MFGT 160	CNC II Operations and Programming	3
340MFGT 170	CAD I	3
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 172	Quality Systems I	3
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 210	Automated Fabrication I	3
340MFGT 260	CNC III - Advanced Operations	3
340MFGT 274	Materials II - Testing and Analysis	3
Total Hours		**61**

[1] At least one course must meet the Human Diversity (HD) (p. 605) requirement.

Pathway

This is an **example course sequence** for students interested in pursuing CNC Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) and Associate in Applied Science (AAS) Degree in CNC Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 110	CNC I Operations	3
	Hours	**15**

Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 160	CNC II Operations and Programming	3
340MFGT 170	CAD I	3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 3		
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 260	CNC III - Advanced Operations	3
Social and Behavioral Sciences course (HD) [1]		3
MATH 140	College Algebra [1]	4
	Hours	**16**
Semester 4		
340MFGT 172	Quality Systems I	3
340MFGT 210	Automated Fabrication I	3
340MFGT 274	Materials II - Testing and Analysis	3
Fine Arts/Humanities course (HD) [1]		3
Physical Sciences/Life Sciences course [1]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education course

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Machinists

Job Description

Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,139
Median 50th Percentile	$58,644
Senior-Level 90th Percentile	$85,195

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$28
Senior-Level 90th Percentile	$41

Annual Job Openings

476 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	49.54%
A certificate	33.12%
Some college	17.34%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend more than one type of cutting or forming machine tool or robot.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,203
Median 50th Percentile	$47,408
Senior-Level 90th Percentile	$70,468

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$34

Annual Job Openings

168 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	82.78%
A certificate	7.64%
Some college	5.64%
An Associate degree	3.94%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Inspectors, Testers, Sorters, Samplers, and Weighers

Job Description

Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,230
Median 50th Percentile	$47,792
Senior-Level 90th Percentile	$74,495

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$36

Annual Job Openings

1104 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	69.81%
A certificate	26.89%
Some college	2.64%
An Associate degree	0.66%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,598
Median 50th Percentile	$44,711
Senior-Level 90th Percentile	$60,290

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$21
Senior-Level 90th Percentile	$29

Annual Job Openings

271 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	76.09%
A certificate	16.42%
Some college	7.49%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CNC Operations, Basic Certificate

College(s): WR*

Program Code: 0422

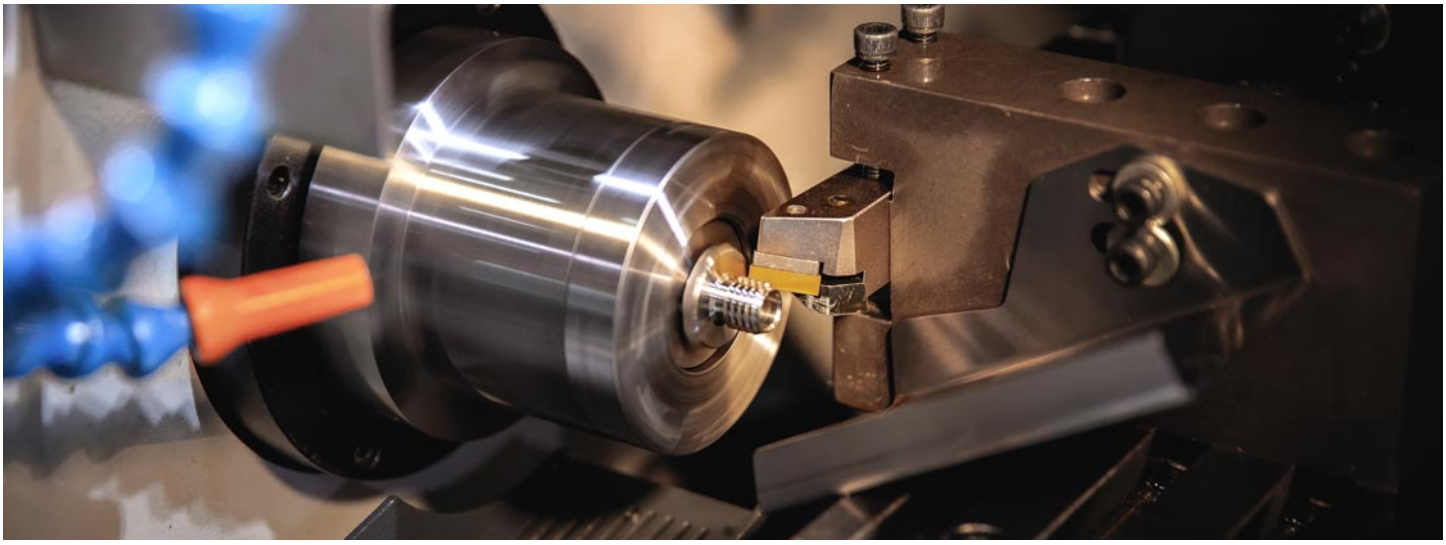
Program Requirements

**As of Spring 2023, this program is no longer accepting new students. Please see the* CNC Technology BC *(*https://catalog.ccc.edu/academic-program-requirements/cnc-technology-basic-certificate/*) program.*

Code	Title	Hours
Required Program Core		
340MFGT 109	Introduction to Manual Machining	3
or 340MFGT 11	Machining Processes II	
340MFGT 110	CNC I Operations	3
Total Hours		**6**

CITY COLLEGES OF CHICAGO

CNC Technology, Basic Certificate



College(s): DA, WR

Program Code: 0447

This the second Basic Certificate that all Applied Engineering students will proceed through as they continue to build on their skills in Advanced Manufacturing. Students will learning the operation and programming basics of CNC equipment commonly used in manufacturing operations how to operate manual mills and lathes and other related CNC operator processes that manufacturing production operations need their team members to have.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 19	Welding I GMAW Manual Machining II	3
Total Hours		**21**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in CNC Technology. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in both Manufacturing Technology and CNC Technology. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 110	CNC I Operations	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
	Hours	**6**
	Total Hours	**21**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Machinists

Job Description

Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial

machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,139
Median 50th Percentile	$58,644
Senior-Level 90th Percentile	$85,195

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$28
Senior-Level 90th Percentile	$41

Annual Job Openings

476 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	49.54%
A certificate	33.12%
Some college	17.34%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$46,231
Median 50th Percentile	$64,799
Senior-Level 90th Percentile	$75,697

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$36

Annual Job Openings

27 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	57.00%
A certificate	15.03%
Some college	9.13%
An Associate degree	0.00%
A Bachelor's degree	18.83%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

18.83% continue their education beyond an associate degree

Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,004
Median 50th Percentile	$50,936
Senior-Level 90th Percentile	$61,355

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$24
Senior-Level 90th Percentile	$29

Annual Job Openings

33 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	49.83%
A certificate	11.58%
Some college	28.86%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	9.62%
A Doctoral degree or more	0.10%

9.72% continue their education beyond an associate degree

Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,985
Median 50th Percentile	$57,989
Senior-Level 90th Percentile	$58,629

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$28
Senior-Level 90th Percentile	$28

Annual Job Openings

6 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	66.64%
A certificate	1.94%
Some college	12.19%
An Associate degree	12.11%
A Bachelor's degree	7.12%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

7.12% continue their education beyond an associate degree

Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,598
Median 50th Percentile	$44,711
Senior-Level 90th Percentile	$60,290

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$21
Senior-Level 90th Percentile	$29

Annual Job Openings

271 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	76.09%
A certificate	16.42%
Some college	7.49%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Collision Technology, Advanced Certificate

College(s): KK

Program Code: 0133

The Advanced Certificate program in Collision Technology provides the necessary foundation and practical experience to pursue entry-level positions in Automotive Collision that meet the changing demands of the automotive industry. Entry-level positions may be found in automotive dealerships, automotive franchises, independent service repair shops, auto part stores, or through self-employment. Students will learn the technical skills essential to employment in the field of auto body care, leading to employment in service, maintenance, and areas of technological specialty such as detailing, auto body paint and refinishing, as well as management occupations or self-employment. Students will also be able to consider transferring Industrial Engineering Technology credits to state universities.

Program Requirements

Code	Title	Hours
Required Program Core		
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 107	Automotive Body Welding	4
AUTOTEC 117	Auto Body Reconstruction I	3
AUTOTEC 118	Auto Body Repainting I	3
AUTOTEC 119	Automotive Body Detailing	5
AUTOTEC 121	Structural Analysis and Damage Repair I	4
AUTOTEC 122	Structural Analysis and Damage Repair II	4
AUTOTEC 217	Auto Body Reconstruction II	3
AUTOTEC 218	Auto Body Repainting II	3
AUTOTEC 220	Collision Estimating	4
AUTOTEC 223	Auto Body Repainting III	3
Total Hours		**40**

Pathway

This is an **example course sequence** for students interested in earning an Advanced Certificate in Collision Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
AUTOTEC 102	Introduction to Collision Technology	4
AUTOTEC 107	Automotive Body Welding	4
AUTOTEC 117	Auto Body Reconstruction I	3
AUTOTEC 217	Auto Body Reconstruction II	3
	Hours	**14**
Semester 2		
AUTOTEC 121	Structural Analysis and Damage Repair I	4
AUTOTEC 122	Structural Analysis and Damage Repair II	4
AUTOTEC 220	Collision Estimating	4
	Hours	**12**
Semester 3		
AUTOTEC 118	Auto Body Repainting I	3
AUTOTEC 218	Auto Body Repainting II	3
AUTOTEC 223	Auto Body Repainting III	3
AUTOTEC 119	Automotive Body Detailing	5
	Hours	**14**
	Total Hours	**40**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Automotive Body and Related Repairers

Job Description

Repair and refinish automotive vehicle bodies and straighten vehicle frames.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,243
Median 50th Percentile	$50,250
Senior-Level 90th Percentile	$82,981

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$24
Senior-Level 90th Percentile	$40

Annual Job Openings

227 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	65.34%
A certificate	34.65%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

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Automotive Glass Installers and Repairers

Job Description

Replace or repair broken windshields and window glass in motor vehicles.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,124
Median 50th Percentile	$46,705
Senior-Level 90th Percentile	$77,310

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$37

Annual Job Openings

21 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	98.62%
A certificate	1.37%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Combination Welder, Basic Certificate

College(s): KK

Program Code: 0758

The Basic Certificate program in Combination Welder is designed to provide students with training in basic welding skills in a shop setting. In addition to learning welding mathematics, blueprint reading, and layout and fabrication, students are also introduced to the basic fundamentals of job safety and ethics. Graduates of this program are qualified for entry level employment as an ARC, MIG, or TIG welder.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
332TECH 449	Professional Development	2
332TECH 472	Vocational Physical Training	2
332TECH 509	Intro To Basic Arc Welding	3
332TECH 518	Manufacturing Materials & Processes	1
332TECH 520	Arc Welding	4
332TECH 526	Welding Mathematics I	1
332TECH 530	Advanced Welding	4
432CMGT 609	Construction Safety II	3
432CMGT 604	Blueprint and Specifications	3
CIS 120	Introduction to Computer Applications	3
Total Hours		**26**

Pathway

This is an **example course sequence** for students interested in pursuing welding. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Welder (Combination).

The Basic Certificate program in Welder (Combination) is designed to provide students with training in basic welding skills in a shop setting. In addition to learning welding mathematics, blueprint reading, layout and fabrication, students are also introduced to the basic fundamentals of job safety and ethics. Graduates of this program are qualified for entry level employment as an ARC, MIG, or TIG welder.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
PHASE 1		
432CMGT 609	Construction Safety II	3
432CMGT 604	Blueprint and Specifications	3
332TECH 472	Vocational Physical Training	2
332TECH 509	Intro To Basic Arc Welding	3
332TECH 526	Welding Mathematics I	1
PHASE 2		
332TECH 518	Manufacturing Materials & Processes	1
332TECH 520	Arc Welding	4
332TECH 530	Advanced Welding	4
	Hours	**21**
Semester 2		
CIS 120	Introduction to Computer Applications	3
332TECH 449	Professional Development	2
	Hours	**5**
	Total Hours	**26**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Welders, Cutters, Solderers, and Brazers

Job Description

Use hand-welding, flame-cutting, hand-soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,177
Median 50th Percentile	$50,354
Senior-Level 90th Percentile	$74,680

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$24
Senior-Level 90th Percentile	$36

Annual Job Openings

454 annual openings in Cook County

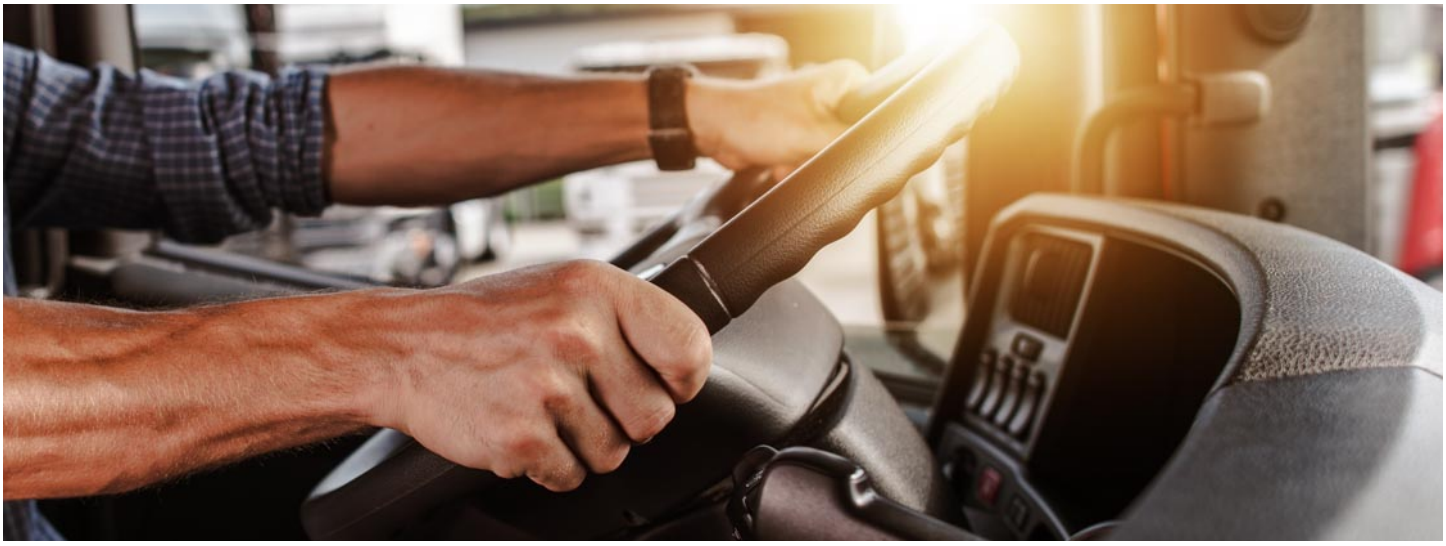
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	74.38%
A certificate	11.64%
Some college	11.28%
An Associate degree	1.75%
A Bachelor's degree	0.94%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.94% continue their education beyond an associate degree

Commercial Driver Training, Basic Certificate



College(s): OH

Program Code: 0876

The Commercial Driver Training certificate program is designed for individuals with little or no commercial driving experience. The Commercial Driver Training program trains students for entry level employment as commercial motor vehicle operators. In partnership with the Illinois Department of Transportation, this program prepares students to obtain a Commercial Driver's License (CDL) in the State of Illinois.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
STTRDE 106	Road Driving	2
STTRDE 148	Commercial Driving Training Practice	7
STTRDE 337	Commercial Driver Training Theory	7
Total Hours		**16**

Special Admission Requirements

- Must be at least 21 years of age
- Have a valid Illinois driver's license
- Have a good driving record
- Provide a current Court-Purpose Motor Vehicle Report (MVR) which can be obtained from Secretary of State for $12.00
- Be able to pass a DOT Physical and Drug Screen
- Must be able to read, write and understand English

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Heavy and Tractor-Trailer Truck Drivers

Job Description

Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,390
Median 50th Percentile	$58,673
Senior-Level 90th Percentile	$97,999

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$28
Senior-Level 90th Percentile	$47

Annual Job Openings

3586 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.24%
A certificate	18.51%
Some college	1.24%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Light Truck Drivers

Job Description

Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,460
Median 50th Percentile	$48,172
Senior-Level 90th Percentile	$92,807

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$23
Senior-Level 90th Percentile	$45

Annual Job Openings

2923 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	98.56%
A certificate	0.00%
Some college	0.27%
An Associate degree	1.17%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Driver/Sales Workers

Job Description

Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,931
Median 50th Percentile	$38,300
Senior-Level 90th Percentile	$78,898

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$18
Senior-Level 90th Percentile	$38

Annual Job Openings

916 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	99.56%
A certificate	0.44%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Commercial Passenger Driver: Class B, Basic Certificate

College(s): OH

Program Code: 0875

The Commercial Passenger Driver: Class B certificate program is designed for students with minimum experience who are trained to operate Class B passenger and non-passenger motor vehicles. In partnership with the Illinois Department of Transportation, the program prepares students for a Class B Commercial Driver's License in the State of Illinois.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
STTRDE 147	Passenger Driver Practice	4
STTRDE 338	Passenger Driver Theory	5
Total Hours		**9**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in Commercial Passenger Driver: Class B. This does not represent a contract, nor does it guarantee course availability.

Prospective students must apply for admission into the Commercial Driver Training Program.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
STTRDE 147	Passenger Driver Practice	4
STTRDE 338	Passenger Driver Theory	5
	Hours	**9**
	Total Hours	**9**

Choose your courses with your College Advisor.

Special Admission Requirements

- Must be at least 21 years of age
- Have a valid Illinois driver's license
- Have a good driving record
- Provide a current Court-Purpose Motor Vehicle Report (MVR) which can be obtained from Secretary of State for $12.00
- Be able to pass a DOT Physical and Drug Screen
- Must be able to read, write and understand English

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bus Drivers, Transit and Intercity

Job Description

Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$52,353
Median 50th Percentile	$72,936
Senior-Level 90th Percentile	$90,064

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$35
Senior-Level 90th Percentile	$43

Annual Job Openings

522 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	96.84%
A certificate	1.66%
Some college	1.49%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Communication Design, Advanced Certificate

College(s): KK

Program Code: 0166

Communication Design, Advanced Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 102	Website Design I	3
COM DSGN 104	Digital Photography	3
COM DSGN 132	Publication Design	3
COM DSGN 150	Graphic Design I	3
COM DSGN 202	Website Design II	3
COM DSGN 212	Motion Graphics I	3
COM DSGN 213	Motion Graphics II	3
COM DSGN 224	Digital Typography	3
COM DSGN 250	Graphic Design II	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning a degree in Communications Design. It does not represent a contract, nor does it guarantee course availability. If the pathway is followed as outlined, you will earn a Basic Certificate in Print Design, a Basic Certificate in Web Page Design, an Advanced Certificate in Communication Design.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 104	Digital Photography	3
	Hours	**6**
Semester 2		
COM DSGN 224	Digital Typography	3
COM DSGN 150	Graphic Design I	3
	Hours	**6**
Semester 3		
COM DSGN 102	Website Design I	3
COM DSGN 132	Publication Design	3
COM DSGN 212	Motion Graphics I	3
COM DSGN 250	Graphic Design II	3
	Hours	**12**
Semester 4		
COM DSGN 202	Website Design II	3
COM DSGN 213	Motion Graphics II	3
	Hours	**6**
	Total Hours	**30**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Prepress Technicians and Workers

Job Description

Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,669
Median 50th Percentile	$61,354
Senior-Level 90th Percentile	$83,322

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$29
Senior-Level 90th Percentile	$40

Annual Job Openings

48 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.48%
A certificate	9.47%
Some college	20.65%
An Associate degree	23.19%
A Bachelor's degree	5.20%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.20% continue their education beyond an associate degree

Communication Design: Print Design, Basic Certificate

College(s): KK

Program Code: 0192

Communication Design: Print Design, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 132	Publication Design	3
COM DSGN 150	Graphic Design I	3
COM DSGN 224	Digital Typography	3
COM DSGN 250	Graphic Design II	3
Total Hours		**15**

Pathway

This is an **example course sequence** in earning a degree in Communication Design. It does not represent a contract, nor does it guarantee course availability. If the pathway is followed as outlined, you will earn a Basic Certificate in Print Design.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
COM DSGN 101	Introduction to Communication Design	3
	Hours	**3**
Semester 2		
COM DSGN 224	Digital Typography	3
COM DSGN 150	Graphic Design I	3
	Hours	**6**
Semester 3		
COM DSGN 132	Publication Design	3
COM DSGN 250	Graphic Design II	3
	Hours	**6**
	Total Hours	**15**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Prepress Technicians and Workers

Job Description

Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,669
Median 50th Percentile	$61,354
Senior-Level 90th Percentile	$83,322

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$29
Senior-Level 90th Percentile	$40

Annual Job Openings

48 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.48%
A certificate	9.47%
Some college	20.65%
An Associate degree	23.19%
A Bachelor's degree	5.20%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.20% continue their education beyond an associate degree

Communication Design, Associate in Applied Science

College(s): KK

Program Code: 0165

The Associate in Applied Science degree program in Communication Design is a creative hybrid learning environment that challenges students to acquire competent skills in art, graphics, website, and animation design. Students train as communication designers and entrepreneurs in the visual communication industry.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
General Education	Mathematics course (MATH 118 or higher)	3
FIN ART 107	History of Architecture, Painting & Sculpture I	3
Fine Arts & Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
Required Program Core		
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 102	Website Design I	3
COM DSGN 104	Digital Photography	3
COM DSGN 132	Publication Design	3
COM DSGN 150	Graphic Design I	3
COM DSGN 202	Website Design II	3
COM DSGN 212	Motion Graphics I	3
COM DSGN 213	Motion Graphics II	3
COM DSGN 224	Digital Typography	3
COM DSGN 250	Graphic Design II	3
COM DSGN 298	Design Studio	3
ART 144	Two Dimensional Design	3
MEDIACM 240	Minicam & Videotape Editing	3
Required Work-Based Learning Courses		
COM DSGN 290	Practicum Internship	3
Program Electives		
Select a minimum of 3 credit hours of the following recommended courses or others as suggested by a College Advisor:		3
ART 131	General Drawing	
ART 132	Advanced General Drawing	
DMD 115	Digital Audio	
FIN ART 108	Hist Of Arch Paint Sculp II	
MEDIACM 250	Mini-Cam & Video Editing II	
MEDIACM 271	Intro to Interactive Media	
Total Hours		**60**

[1] One of the courses must fulfill the Human Diversity requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Communications Design. It does not represent a contract, nor does it guarantee course availability. If the pathway is followed as outlined, you will earn a Basic Certificate in Print Design, a Basic Certificate in Web Page Design, an Advanced Certificate in Communication Design and an Associate in Applied Science degree in Communications Design. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 104	Digital Photography	3
FIN ART 107	History of Architecture, Painting & Sculpture I [1]	3
ART 144	Two Dimensional Design	3
	Hours	**15**
Semester 2		
COM DSGN 224	Digital Typography	3
COM DSGN 150	Graphic Design I	3
MATH 118	General Education Math [1]	4
Social and Behavioral Sciences course [1]		3
Fine Arts & Humanities (HD) [1]		3
	Hours	**16**
Semester 3		
COM DSGN 102	Website Design I	3
COM DSGN 132	Publication Design	3
COM DSGN 212	Motion Graphics I	3
COM DSGN 250	Graphic Design II	3
MEDIACM 240	Minicam & Videotape Editing	3
	Hours	**15**
Semester 4		
COM DSGN 202	Website Design II	3
COM DSGN 298	Design Studio	3
COM DSGN 213	Motion Graphics II	3
COM DSGN 290	Practicum Internship	3
Program Elective (p. 164) [2]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education Requirement
[2] Select a minimum of 3 credit hours of the recommended courses or others as suggested by a College Advisor.

Program Electives

Code	Title	Hours
ART 131	General Drawing	3
ART 132	Advanced General Drawing	3
DMD 115	Digital Audio	3
FIN ART 108	Hist Of Arch Paint Sculp II	3
MEDIACM 250	Mini-Cam & Video Editing II	3
MEDIACM 271	Intro to Interactive Media	3
Or other courses as suggested by a College Advisor		3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Prepress Technicians and Workers

Job Description

Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,669
Median 50th Percentile	$61,354
Senior-Level 90th Percentile	$83,322

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$29
Senior-Level 90th Percentile	$40

Annual Job Openings

48 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.48%
A certificate	9.47%
Some college	20.65%
An Associate degree	23.19%
A Bachelor's degree	5.20%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.20% continue their education beyond an associate degree

Communication Design: Web Page Design, Basic Certificate

College(s): KK

Program Code: 0193

Communication Design: Web Page Design, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 102	Website Design I	3
COM DSGN 150	Graphic Design I	3
COM DSGN 202	Website Design II	3
COM DSGN 224	Digital Typography	3
Total Hours		**15**

Pathway

This is an **example course sequence** in earning a degree in Communication Design. It does not represent a contract, nor does it guarantee course availability. If the pathway is followed as outlined, you will earn a Basic Certificate in Web Page Design.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
COM DSGN 101	Introduction to Communication Design	3
	Hours	**3**
Semester 2		
COM DSGN 224	Digital Typography	3
COM DSGN 150	Graphic Design I	3
	Hours	**6**
Semester 3		
COM DSGN 102	Website Design I	3
	Hours	**3**
Semester 4		
COM DSGN 202	Website Design II	3
	Hours	**3**
	Total Hours	**15**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Graphic Designers

Job Description

Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,586
Median 50th Percentile	$58,300
Senior-Level 90th Percentile	$106,609

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$28
Senior-Level 90th Percentile	$51

Annual Job Openings

392 annual openings in Cook County

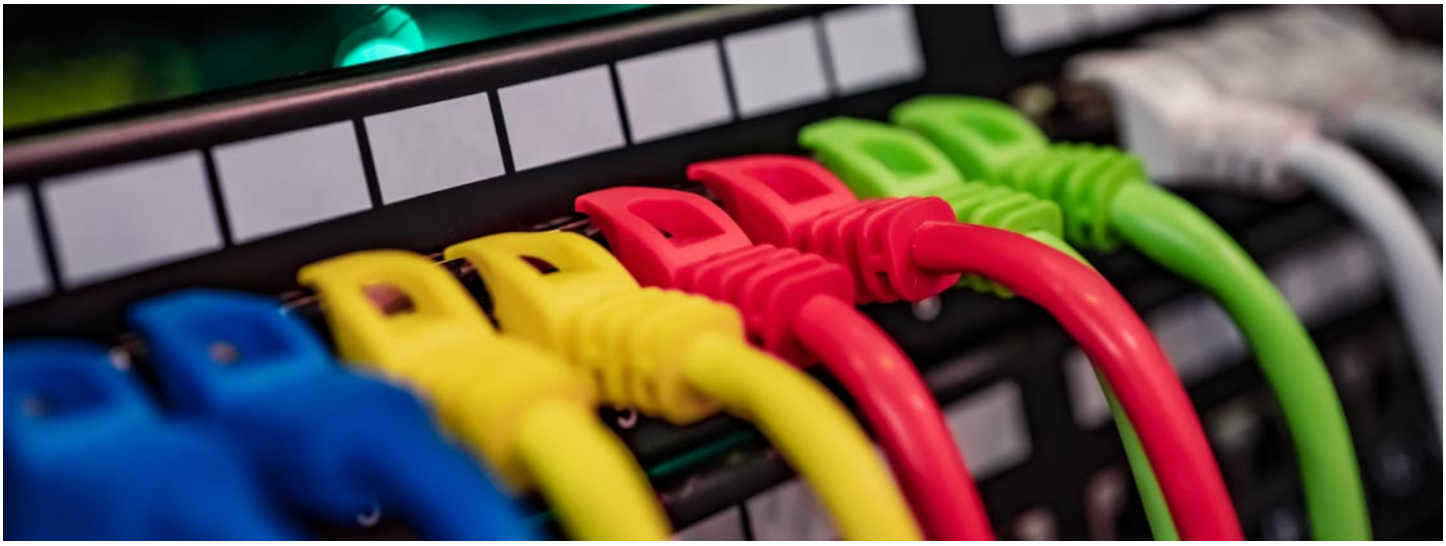
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	15.00%
A certificate	0.00%
Some college	5.00%
An Associate degree	5.00%
A Bachelor's degree	65.00%
A Master's or Professional degree	10.00%
A Doctoral degree or more	0.00%

75.00% continue their education beyond an associate degree

Communications Technology, Advanced Certificate



College(s): DA

Program Code: 0709

The Advanced Certificate program in Communications Technology prepares students to become an apprentice under the tutelage of a union electrical contractor. Communications Journeyman and Apprentices install and maintain structured wiring and electronic systems in the residential, commercial, and industrial settings.

Program Requirements

Code	Title	Hours
Required Program Core		
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 709	Print Reading II	3
432IBEW 714	Technical Math I	3
432IBEW 715	Technical Math II	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
432IBEW 718	Integrated Systems I	3.5
432IBEW 721	Fiber Optics	3.5
432IBEW 726	Low Voltage Systems Communications	3.5
Total Hours		**36.5**

Pathway

This is an **example course sequence** for students interested in pursuing Communications Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Communications Technology.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 714	Technical Math I	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
	Hours	**20**
Semester 2		
432IBEW 718	Integrated Systems I	3.5
432IBEW 726	Low Voltage Systems Communications	3.5
432IBEW 721	Fiber Optics	3.5
432IBEW 715	Technical Math II	3
432IBEW 709	Print Reading II	3
	Hours	**16.5**
	Total Hours	**36.5**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Electricians

Job Description

Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,595
Median 50th Percentile	$34,244
Senior-Level 90th Percentile	$65,968

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$16
Senior-Level 90th Percentile	$32

Annual Job Openings

13 annual openings in Cook County

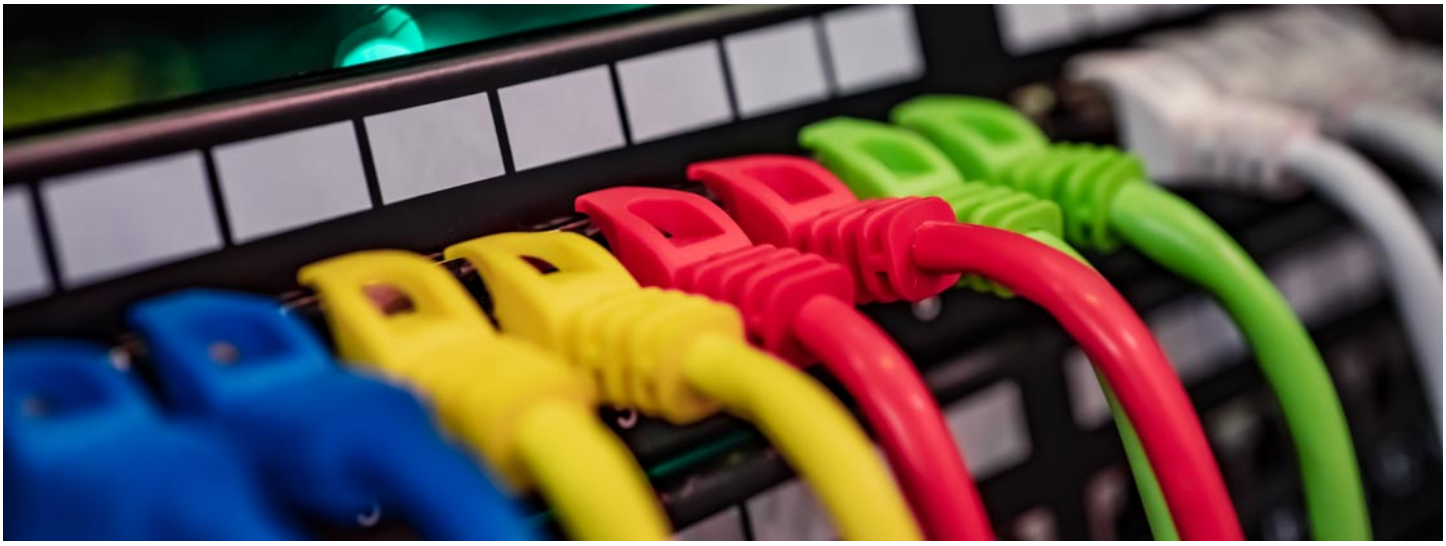
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	81.50%
A certificate	13.03%
Some college	2.84%
An Associate degree	1.33%
A Bachelor's degree	1.30%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.30% continue their education beyond an associate degree

Communications Technology, Associate in Applied Science



College(s): DA

Program Code: 0750

The Associate in Applied Science degree program in Communications Technology is a cooperative effort between Richard J. Daley College and the Electrical Joint Apprenticeship and Training Trust (EJATT) which is made up of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) Local Union 134. Through the joint effort of the college and EJATT, the program is dedicated to consistently provide state-of-the art education and training to apprentices, and through them to the residential and commercial building contractors in the Chicagoland area. This commitment to both the individual and industry requires not only providing electricians for today's market, but also for tomorrow's market and future technologies.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
432IBEW 714	Technical Math I	3
Any Psychology, History, or related course		9
Required Program Core		
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 709	Print Reading II	3
432IBEW 711	Communications	4
432IBEW 715	Technical Math II	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
432IBEW 718	Integrated Systems I	3.5
432IBEW 719	Integrated Systems II	4.5
432IBEW 720	Communication Systems Verification	3.5
432IBEW 721	Fiber Optics	3.5
432IBEW 722	Computer Networking	4.5
432IBEW 726	Low Voltage Systems Communications	3.5
Total Hours		**65**

[1] At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in pursuing Communications Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC), and Associate in Applied Science (AAS) degree in Communications Technology.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 714	Technical Math I	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
	Hours	**20**
Semester 2		
432IBEW 718	Integrated Systems I	3.5
432IBEW 726	Low Voltage Systems Communications	3.5
432IBEW 721	Fiber Optics	3.5
432IBEW 715	Technical Math II	3

432IBEW 709	Print Reading II	3
	Hours	**16.5**
Semester 3		
432IBEW 719	Integrated Systems II	4.5
432IBEW 711	Communications	4
432IBEW 720	Communication Systems Verification	3.5
432IBEW 722	Computer Networking	4.5
	Hours	**16.5**
Semester 4		
ENGLISH 101	Composition [1]	3
Any Psychology, History, or related course [1,2]		9
	Hours	**12**
	Total Hours	**65**

[1] General Education Requirement
[2] At least one course must be HD

Choose your courses with your College Advisor.

Applicant requirements:

- Graduates of an accredited high school or have acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts. Official transcripts will be accepted in place of the high school diploma if the graduation date is provided.
- At least 18 years old prior to application.
- Have taken two semesters of high school or college algebra and earned a minimum C grade in each semester prior to application. An official transcript is required.
- Be physically able, as determined by a physician, to safely perform the tasks of a construction electrician. A drug test is required.
- Have evidence of a qualifying grade on an aptitude test prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension,#along with a spatial ability evaluation.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Electricians

Job Description

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,314
Median 50th Percentile	$94,783
Senior-Level 90th Percentile	$123,681

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$46
Senior-Level 90th Percentile	$59

Annual Job Openings

805 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	32.89%
A certificate	61.71%
Some college	2.31%
An Associate degree	1.79%
A Bachelor's degree	0.00%
A Master's or Professional degree	1.31%
A Doctoral degree or more	0.00%

1.31% continue their education beyond an associate degree

Security and Fire Alarm Systems Installers

Job Description

Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$33,439
Median 50th Percentile	$61,715
Senior-Level 90th Percentile	$101,548

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$30
Senior-Level 90th Percentile	$49

Annual Job Openings

109 annual openings in Cook County

National Education Attainment

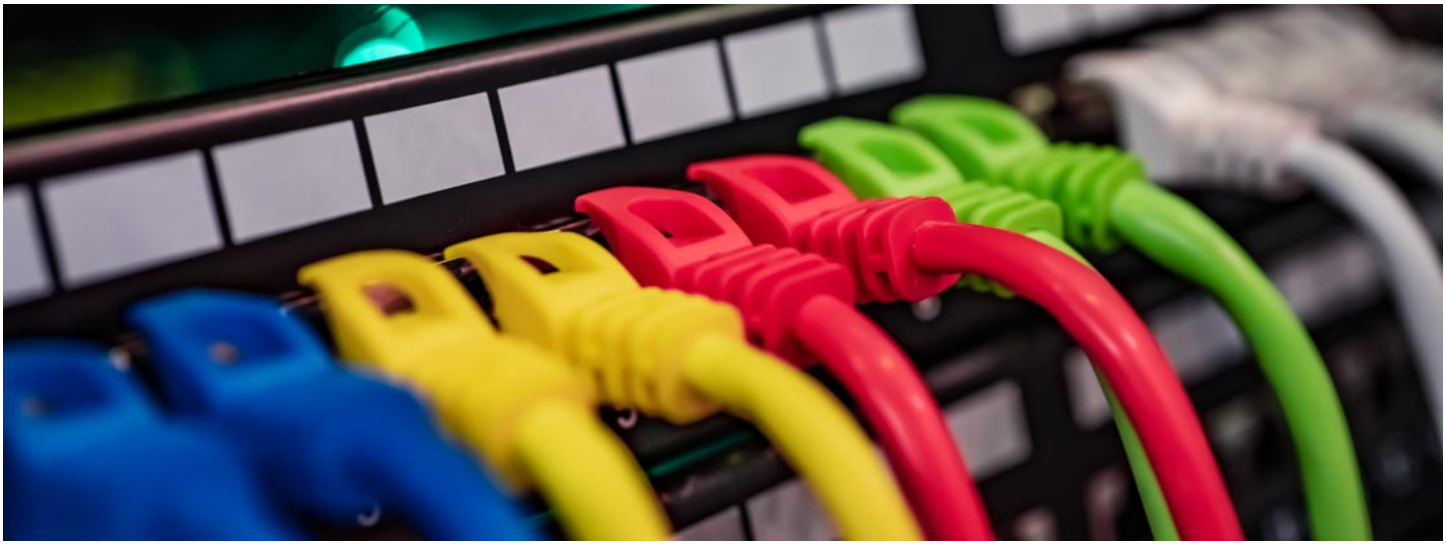
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.41%
A certificate	48.58%
Some college	8.41%
An Associate degree	1.60%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Communications Technology, Basic Certificate



College(s): DA

Program Code: 0704

The Basic Certificate program in Communications Technology prepares students to become an apprentice under the tutelage of a union electrical contractor. Communications Journeymen and Apprentices install and maintain structured wiring and electronic systems in residential, commercial, and industrial settings.

Program Requirements

Code	Title	Hours
Required Program Core		
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 714	Technical Math I	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
Total Hours		**20**

Pathway

This is an **example course sequence** for students interested in pursuing Communications Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Communications Technology.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 714	Technical Math I	3
432IBEW 716	Electronics	4.5
432IBEW 717	Structured Wiring	4.5
	Hours	**20**
	Total Hours	**20**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Electricians

Job Description

Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,595
Median 50th Percentile	$34,244
Senior-Level 90th Percentile	$65,968

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$16
Senior-Level 90th Percentile	$32

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	81.50%
A certificate	13.03%
Some college	2.84%
An Associate degree	1.33%
A Bachelor's degree	1.30%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.30% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Community Health Care Worker, Basic Certificate

College(s): DA, MX

Program Code: 0718

The Community Health Care Worker program is designed to focus on competencies universally required for primary and preventive health care. The curriculum also serves students who may wish to enter into a nursing program or other allied health professions. Research shows that many health educator programs at the university level (bachelor, masters) require as a core curriculum the same knowledge and competence areas incorporated into this program.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CHW 120	Community and Public Health	3
CHW 121	Introduction to Community Health Work	3
CHW 125	Nutrition, Movement, and Health Basics	3
CHW 130	Mental Health Care	3
CHW 132	Field Experience	4
Total Hours		**16**

Pathways

Semester-by-Semester Program Plan for Full-Time Students - MX

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CHW 120	Community and Public Health	3
CHW 121	Introduction to Community Health Work	3
CHW 125	Nutrition, Movement, and Health Basics	3
CHW 130	Mental Health Care	3
CHW 132	Field Experience	4
	Hours	**16**
	Total Hours	**16**

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Part-Time Students - DA

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CHW 120	Community and Public Health	3
CHW 121	Introduction to Community Health Work	3
	Hours	**6**
Semester 2		
CHW 125	Nutrition, Movement, and Health Basics	3
CHW 130	Mental Health Care	3
CHW 132	Field Experience	4
	Hours	**10**
	Total Hours	**16**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Community Health Workers

Job Description

Promote health within a community by assisting individuals to adopt healthy behaviors. Serve as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Act as liaison or advocate and implement programs that promote, maintain, and improve individual and overall community health. May deliver health-related preventive services such as blood pressure, glaucoma, and hearing screenings. May collect data to help identify community health needs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,446
Median 50th Percentile	$50,124
Senior-Level 90th Percentile	$72,053

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$24
Senior-Level 90th Percentile	$35

Annual Job Openings

88 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.49%
A certificate	0.00%
Some college	2.63%
An Associate degree	22.71%
A Bachelor's degree	51.88%
A Master's or Professional degree	15.30%
A Doctoral degree or more	0.00%

67.18% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Community Leadership, Basic Certificate

College(s): KK

Program Code: 0517

The Community Leadership Program prepares students to become leaders and community organizers who can engage with diverse communities and create sustainable, positive impact. It is designed for those considering a career in the nonprofit and social-change sector.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
SOC SCI 160	Community Organizing	3
SOC SCI 260	Community Development	3
POL SCI 207	U.S. State & Local Government	3
Select one of the following:		3
AFRO AM 101	Introduction to African-American Studies	
HISTORY 216	U.S. Latinx History	
SOC 207	The Sociology Of Sex & Gender	
Required Work-Based Learning Courses		
SOC SCI 265	Practicum in Community Leadership	4
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in pursuing Community Leadership. This does not represent a contract of guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC) in Community Leadership.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
POL SCI 207	U.S. State & Local Government	3
SOC SCI 160	Community Organizing (1st 8 weeks)	3
SOC SCI 260	Community Development (2nd 8 weeks)	3
	Hours	**9**
Semester 2		
SOC SCI 265	Practicum in Community Leadership	4
Select one of the following:		3
AFRO AM 101	Introduction to African-American Studies	
HISTORY 216	U.S. Latinx History	
SOC 207	The Sociology Of Sex & Gender	
	Hours	**7**
	Total Hours	**16**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Community Service Managers

Job Description

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,316
Median 50th Percentile	$76,661
Senior-Level 90th Percentile	$125,879

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$37
Senior-Level 90th Percentile	$61

Annual Job Openings

383 annual openings in Cook County

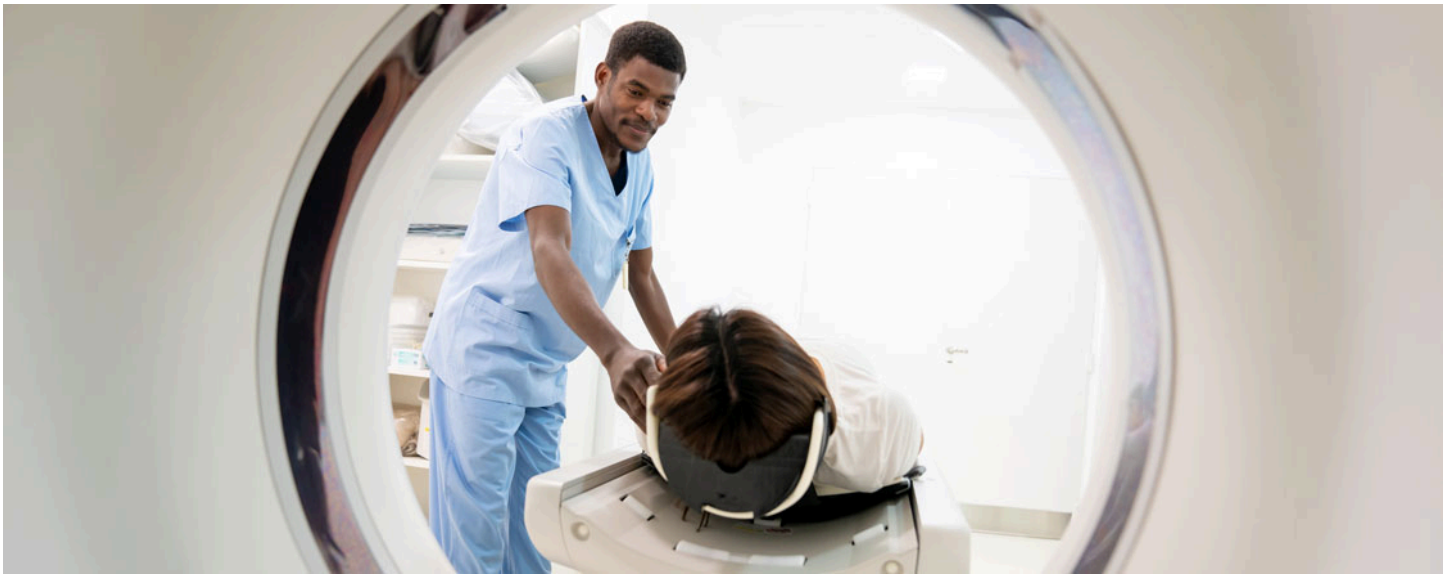
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.24%
A certificate	0.00%
Some college	2.19%
An Associate degree	8.15%
A Bachelor's degree	50.36%
A Master's or Professional degree	32.05%
A Doctoral degree or more	0.00%

82.41% continue their education beyond an associate degree

Computed Tomography, Basic Certificate



College(s): MX

Program Code: 0469

The purpose of the Computed Tomography Basic Certificate is to provide licensed radiologic technologists with the opportunity to develop discipline-specific knowledge and skills to meet all the guidelines and to become certified by the American Registry of Radiologic Technologists (ARRT) as a diagnostic computed tomography technologist.

Program Requirements

Code	Title	Hours
Required Program Core		
RADIOGR 252	Cross Section Anatomy I	2
RADIOGR 253	Cross Section Anatomy II	2

RADIOGR 254	CT Principles I	2
RADIOGR 255	CT Principles II	2
RADIOGR 258	CT Patient Care & Radiation Safety	2
Required Work-Based Learning Courses		
RADIOGR 256	Computed Tomography Clinical Education I	4
RADIOGR 257	Computed Tomography Clinical Education II	4
Total Hours		**18**

This is an **example course sequence** for students interested in a Basic Certificate (BC) in Computed Tomography. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
RADIOGR 258	CT Patient Care & Radiation Safety	2
RADIOGR 252	Cross Section Anatomy I	2
RADIOGR 254	CT Principles I	2
RADIOGR 256	Computed Tomography Clinical Education I	4
	Hours	**10**
Semester 2		
RADIOGR 253	Cross Section Anatomy II	2
RADIOGR 255	CT Principles II	2
RADIOGR 257	Computed Tomography Clinical Education II	4
	Hours	**8**
	Total Hours	**18**

Choose your courses with your College Advisor.

Program Admission Requirements

In order to enter the program, candidates must:

meet general admissions requirements for Malcolm X College,

have a minimum cumulative GPA of 2.5 in all college level work,

have a current ARRT certification and state license from the Illinois Emergency Management Agency (IEMA).

Admission requirement for the clinical education component:

satisfactorily complete of a health form and immunizations, drug screen, background check,

submit a copy of a current American Heart Association Healthcare Provider CPR card,

submit a copy of health insurance.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Radiologic Technologists and Technicians

Job Description

Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes. Includes radiologic technologists and technicians who specialize in other scanning modalities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$64,269
Median 50th Percentile	$84,643
Senior-Level 90th Percentile	$111,870

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$41
Senior-Level 90th Percentile	$54

Annual Job Openings

172 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	**% of Jobs**
A high school diploma or less	0.00%
A certificate	16.52%
Some college	0.00%
An Associate degree	72.85%
A Bachelor's degree	10.63%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.63% continue their education beyond an associate degree

Computer Information Systems, Advanced Certificate

College(s): DA*, HW*, KK*, MX*, OH*, TR*, WR*

Program Code: 0013

**Beginning Summer 2016, this program is no longer accepting new students. Please refer to CCC's other IT offerings.*

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 250	Systems Analysis and Design	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
Select a minimum of 9 credit hours of the following or others as recommended by a College Advisor:		9
CIS 103	Fundamentals of Programming	
CIS 120	Introduction to Computer Applications	
CIS 122	Intro to Word Processing on Microcomputers	
CIS 142	C++ Object Oriented Programming I	
CIS 144	Java Object Oriented Programming I	
CIS 145	Database Management	
CIS 158	Web Development I	
CIS 181	Web Development I/Basic Web Technologies	
CIS 182	Web Development II/Client Side Scripting	
CIS 235	Advanced COBOL Programming	
CIS 244	Java Object Oriented Programming II	
CIS 258	Web Development II	
Electives		
Students should meet with a College Advisor for selection of elective courses.		7
Total Hours		**30**

Computer Information Systems, Associate in Applied Science

College(s): DA*, HW*, KK*, MX*, OH*, TR*, WR*

Program Code: 0011

**Beginning Summer 2016, this program is no longer accepting new students. Please refer to CCC's other IT offerings.*

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101		3
Additional General Education Courses [1,2]		12
Required Program Core		
CIS 101	Computer Science 101	3
CIS 120	Introduction to Computer Applications	3
CIS 250	Systems Analysis and Design	3
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
MATH 118	General Education Math (or higher)	4
Select a minimum of 12 credit hours of the following:		12
CIS 103	Fundamentals of Programming	
CIS 122	Intro to Word Processing on Microcomputers	
CIS 142	C++ Object Oriented Programming I	
CIS 144	Java Object Oriented Programming I	
CIS 145	Database Management	
CIS 158	Web Development I	
CIS 181	Web Development I/Basic Web Technologies	
CIS 182	Web Development II/Client Side Scripting	
CIS 244	Java Object Oriented Programming II	
CIS 258	Web Development II	
Electives		
Students should meet with a College Advisor for selection of elective courses.		9
Total Hours		**60**

1 Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social and Behavioral Sciences, or Physical Sciences & Life Sciences.

2 At least one course must meet the Human Diversity (HD) requirement.

Computer Information Systems, Basic Certificate

College(s): DA*, KK*, MX*, OH*, TR, WR*

Program Code: 0012

**Beginning Summer 2016, this program is no longer accepting new students at DA, KK, MX, OH, or WR. Please refer to CCC's other IT offerings.*

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 120	Introduction to Computer Applications	3
Electives		
Select a minimum of 6 credit hours of the following or others as recommended by a College Advisor:		6
CIS 103	Fundamentals of Programming	
CIS 122	Intro to Word Processing on Microcomputers	
CIS 142	C++ Object Oriented Programming I	
CIS 144	Java Object Oriented Programming I	
CIS 145	Database Management	
CIS 158	Web Development I	
CIS 181	Web Development I/Basic Web Technologies	
CIS 182	Web Development II/Client Side Scripting	
CIS 244	Java Object Oriented Programming II	
CIS 258	Web Development II	
Total Hours		**12**

Computer Numeric Control Machining, Advanced Certificate

College(s): WR*

Program Code: 0725

**As of Spring 2023, this program is no longer accepting new students. Please see CCC's other manufacturing offerings.*

The Advanced Certificate program in Computerized Numerical Control is designed for the study of the basic principles of machine tool technology incorporating basic computer applications to the manufacturing industry, including CNC programming and computer integrated manufacturing (CAD/CAM). The Advanced Certificate program prepares students for roles as CNC tool programmers, operators, setters, as well as tool and die setters. The program is appropriate for career changers, high school graduates, general education diploma holders, and machining workers with a need to enhance their careers.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
MATH 125	Introductory Statistics	4
340MFGT 111	Machining Processes I	3
340MFGT 112	Machining Processes II	3
340MFGT 123	CNC Milling Operations & Programming	3
340MFGT 137	CNC Turning Operations & Programming	3
340MFGT 138	Intro to Solidworks	3
340MFGT 139	Print Requirements-Quality Assurance	3
340MFGT 140	CNC Fundamentals	3
340MFGT 143	Advanced Metrology	3
340MFGT 144	Wire Electrical Discharge Machining	3
340MFGT 207	Introduction to MASTERCAM	3
Total Hours		**37**

Computer Numeric Control Machining, Basic Certificate

College(s): WR*

Program Code: 0724

**As of Spring 2023, the program is no longer accepting new students. Please see the* CNC Technology BC *(*https://catalog.ccc.edu/academic-program-requirements/cnc-technology-basic-certificate/*) program.*

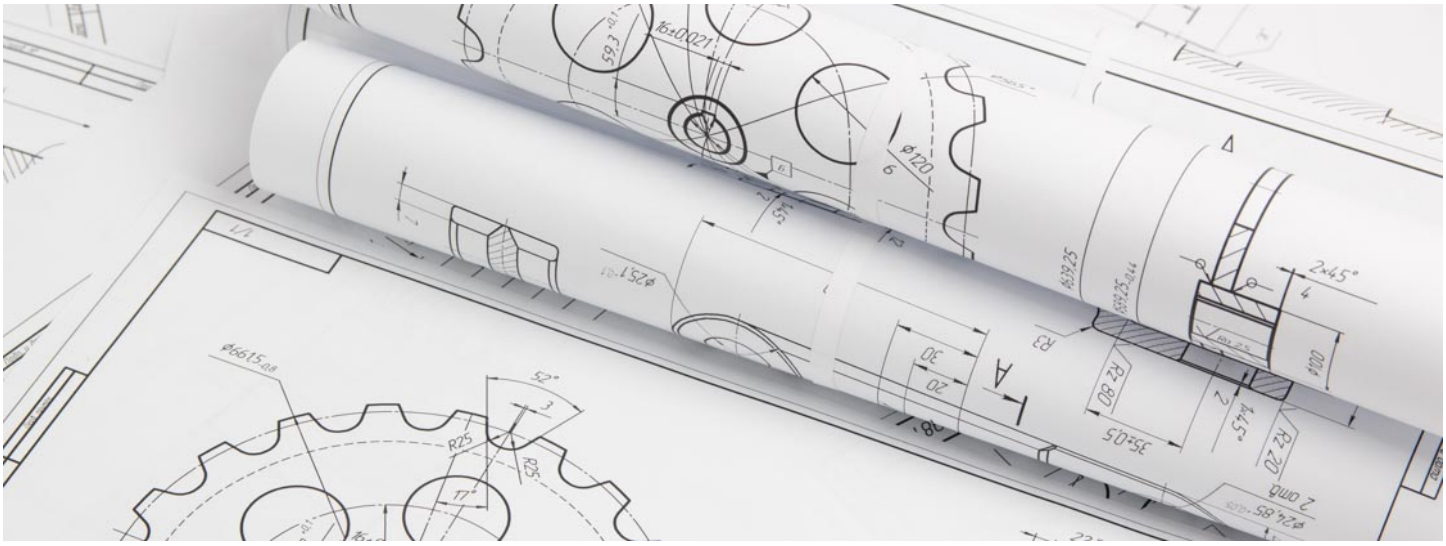
The Basic Certificate in CNC Machining provides students with the skills and knowledge to set up and operate CNC lathes and mills. Certificate completers will be able to gain entry-level jobs as CNC machine operators or machinist trainees. The BC program prepares students for roles as CNC tool programmers, operators, setters, as well as tool and die setters. The program is appropriate for career changers, high school graduates, general education diploma holders, and machining workers with a need to enhance their careers.

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 111	Machining Processes I	3
340MFGT 112	Machining Processes II	3
340MFGT 123	CNC Milling Operations & Programming	3
340MFGT 137	CNC Turning Operations & Programming	3
340MFGT 140	CNC Fundamentals	3
Program Electives		
INTDSP 102	Career Development and Decision Making	1
Total Hours		**16**

CITY COLLEGES OF CHICAGO

Computer-Aided Drafting (CAD) Technology, Advanced Certificate



College(s): TR

Program Code: 0138

The Advanced Certificate program in Computer-Aided Design (CAD) Technology provides the technical instruction and skill development for the graduate to become successfully employed in the drafting fields of the mechanical, architectural, and construction industry. Instruction is directed toward theoretical and technical skills in the use of modern drafting tools and equipment with emphasis placed on the training of CAD techniques.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGR 100	Elements of Engineering Drawing	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 132	Descriptive Geometry	3
ENGR 190	Computer Programming for Engineers	3
ENGR 202	Advanced Drafting & Basic Machine Design	3
MATH 140	College Algebra	4
MATH 141	Plane Trigonometry	3
CAD TEC 130	CAD Technology I	3
CAD TEC 170	CAD Technology II	3
CAD TEC 171	CAD Technology III	3
CAD TEC 172	CAD Technology IV	3
Total Hours		**34**

Pathway

This is an **example** course sequence for students interested in earning an advanced certificate in Computer-Aided Design (CAD) Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in CAD Technology.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CAD TEC 130	CAD Technology I	3
MATH 140	College Algebra	4
ENGR 100	Elements of Engineering Drawing	3
	Hours	**10**
Semester 2		
MATH 141	Plane Trigonometry	3
ENGR 131	Engineering Graphics & Intro to Design	3
CAD TEC 170	CAD Technology II	3
	Hours	**9**
Semester 3		
CAD TEC 171	CAD Technology III	3
ENGR 202	Advanced Drafting & Basic Machine Design	3
ENGR 132	Descriptive Geometry	3
	Hours	**9**
Semester 4		
CAD TEC 172	CAD Technology IV	3
ENGR 190	Computer Programming for Engineers	3
	Hours	**6**
	Total Hours	**34**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional

guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

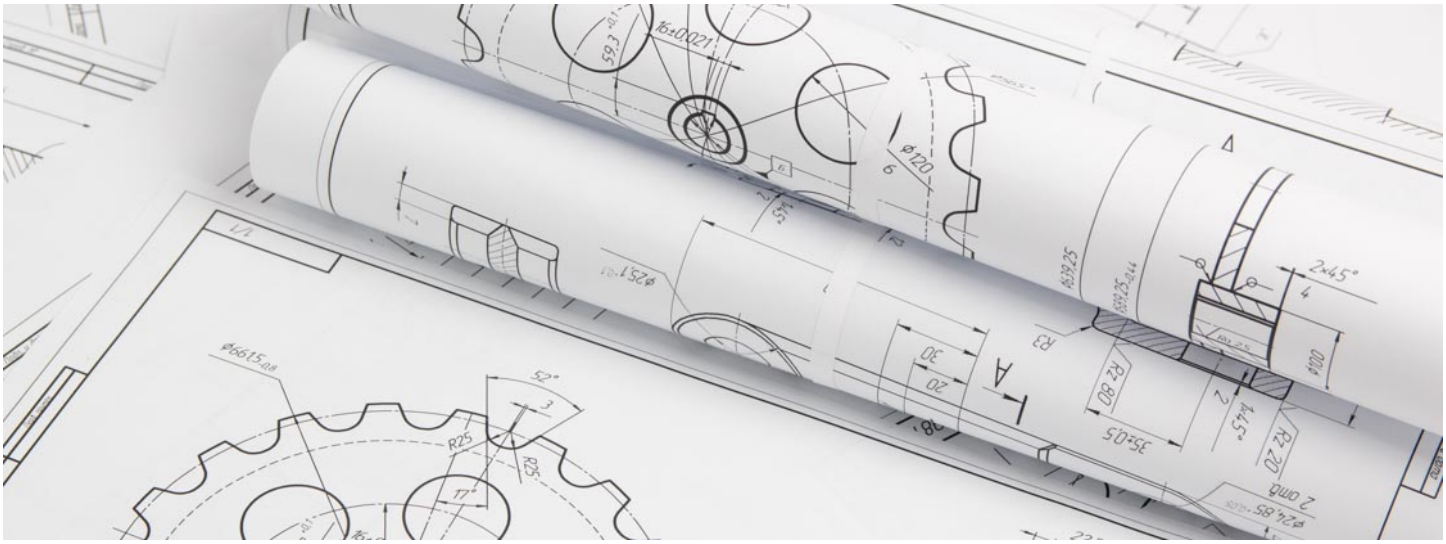
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Computer-Aided Drafting (CAD) Technology, Associate in Applied Science



College(s): TR

Program Code: 0144

The Associate in Applied Science degree program in Computer-Aided Design (CAD) Technology provides the technical instruction and skill development for the graduate to become successfully employed in the drafting fields of the mechanical, architectural, and construction industry. Instruction is directed toward theoretical and technical skills in the use of modern drafting tools and equipment with emphasis placed on the training of CAD techniques.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 140	College Algebra	4
PHYSICS 231	General Physics I: Mechanics & Wave Motion	4
Fine Arts & Humanities course		3
CIS 120	Introduction to Computer Applications	3
Required Program Core		
CIS 103	Fundamentals of Programming	3
CIS 116	Operating System I	3
CIS 123	Microcomputer Spreadsheets	3
ENGR 100	Elements of Engineering Drawing	3
ENGR 110	Introductory Drafting	2
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 132	Descriptive Geometry	3
ENGR 190	Computer Programming for Engineers	3
ENGR 202	Advanced Drafting & Basic Machine Design	3
MATH 141	Plane Trigonometry	3
CAD TEC 130	CAD Technology I	3
CAD TEC 170	CAD Technology II	3
CAD TEC 171	CAD Technology III	3
CAD TEC 172	CAD Technology IV	3
Total Hours		**61**

One course must fulfill the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Computer-Aided Design (CAD) Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science degree (AAS) in CAD Technology. One course will satisfy the Human Diversity (HD) (p. 605) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
CAD TEC 130	CAD Technology I	3
MATH 140	College Algebra [1]	4
ENGR 100	Elements of Engineering Drawing	3
ENGR 110	Introductory Drafting	2
	Hours	**15**

Semester 2		
MATH 141	Plane Trigonometry	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 111	Engineering Success Seminar	3
CAD TEC 170	CAD Technology II	3
CIS 103	Fundamentals of Programming	3
	Hours	**15**
Semester 3		
CAD TEC 171	CAD Technology III	3
ENGR 202	Advanced Drafting & Basic Machine Design	3
ENGR 132	Descriptive Geometry	3
Fine Arts & Humanities course (HD) [1]		3
CIS 120	Introduction to Computer Applications [1]	3
	Hours	**15**
Semester 4		
CAD TEC 172	CAD Technology IV	3
ENGR 190	Computer Programming for Engineers	3
PHYSICS 231	General Physics I: Mechanics & Wave Motion [1]	4
CIS 123	Microcomputer Spreadsheets	3
CIS 116	Operating System I	3
	Hours	**16**
	Total Hours	**61**

[1] General Education Requirement

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

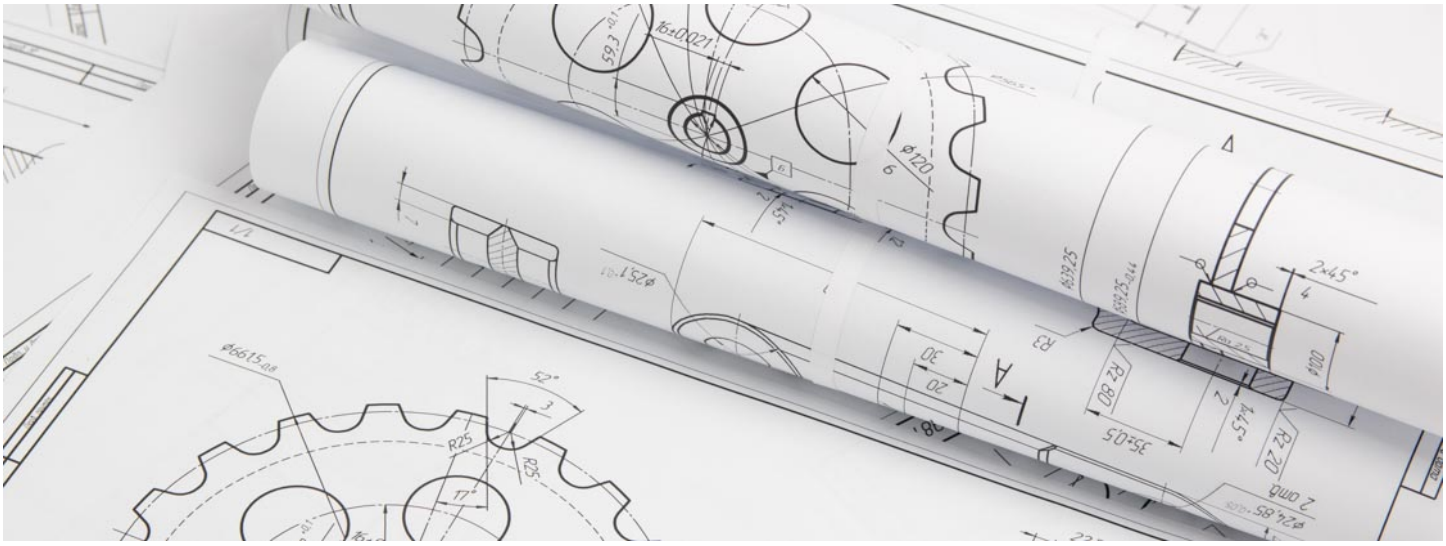
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Computer-Aided Drafting (CAD) Technology, Basic Certificate



College(s): TR

Program Code: 0139

Computer-Aided Drafting (CAD) Technology, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
CAD TEC 130	CAD Technology I	3
CAD TEC 170	CAD Technology II	3
CAD TEC 171	CAD Technology III	3
CAD TEC 172	CAD Technology IV	3
Select one of the following:		4
MATH 140	College Algebra	
COOP EX 208	Engineering & Industrial Technologies CWE (Cooperative Work Experience)	
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in earning a degree in Computer-Aided Design (CAD) Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in CAD Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CAD TEC 130	CAD Technology I	3
MATH 140 or COOP EX 208	College Algebra or Engineering & Industrial Technologies CWE	4
	Hours	**7**
Semester 2		
CAD TEC 170	CAD Technology II	3
	Hours	**3**
Semester 3		
CAD TEC 171	CAD Technology III	3
	Hours	**3**
Semester 4		
CAD TEC 172	CAD Technology IV	3
	Hours	**3**
	Total Hours	**16**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Architectural and Civil Drafters

Job Description

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Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,193
Median 50th Percentile	$56,014
Senior-Level 90th Percentile	$86,379

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$27
Senior-Level 90th Percentile	$42

Annual Job Openings

78 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.41%
A certificate	0.91%
Some college	0.41%
An Associate degree	17.85%
A Bachelor's degree	54.59%
A Master's or Professional degree	25.84%
A Doctoral degree or more	0.00%

80.43% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Computer-Aided Drafting Engineering Technology, Advanced Certificate

College(s): DA

Program Code: 0456

Students in this program are prepared for careers in industrial drafting and design of industrial components. Companies that manufacture physical products and that have production process equipment need their products, facilities and equipment drawn, detailed and designed prior to their manufacture or installation.#Students gain an overview of manufacturing processes through hands on lab classes in CNC machining, welding and electrical controls as well as Computer Aided design program training and conversion of 3D designs into CNC programs and rapid prototyping of designs.

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 170	CAD I	3
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 270	CAD II Detailing	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing Computer-Aided Drafting Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) in Computer-Aided Drafting Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 110	CNC I Operations	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 170	CAD I	3
340MFGT 171	Automated Metrology-Quality Assurance	3
	Hours	**12**
Semester 3		
340MFGT 270	CAD II Detailing	3
	Hours	**3**
	Total Hours	**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Mechanical Engineering Technologists and Technicians

Job Description

Apply theory and principles of mechanical engineering to modify, develop, test, or adjust machinery and equipment under direction of engineering staff or physical scientists.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$50,128
Median 50th Percentile	$69,282
Senior-Level 90th Percentile	$100,739

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$33
Senior-Level 90th Percentile	$48

Annual Job Openings

30 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.80%
A certificate	32.84%
Some college	8.76%
An Associate degree	14.09%
A Bachelor's degree	36.52%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

36.52% continue their education beyond an associate degree

Industrial Engineering Technologists and Technicians

Job Description

Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,636
Median 50th Percentile	$73,382
Senior-Level 90th Percentile	$100,742

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$48

Annual Job Openings

67 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	21.64%
A certificate	1.25%
Some college	36.92%
An Associate degree	25.54%
A Bachelor's degree	14.65%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

14.65% continue their education beyond an associate degree

Electrical and Electronics Drafters

Job Description

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,323
Median 50th Percentile	$63,729
Senior-Level 90th Percentile	$103,052

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$50

Annual Job Openings

12 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	6.10%
A certificate	21.07%
Some college	6.74%
An Associate degree	23.56%
A Bachelor's degree	40.08%
A Master's or Professional degree	2.46%
A Doctoral degree or more	0.00%

42.54% continue their education beyond an associate degree

Computer-Aided Drafting Engineering Technology, Associate in Applied Science

College(s): DA

Program Code: 0457

Students in the Computer-Aided Drafting Engineering Technology Associate in Applied Science (AAS) program are prepared for careers in industrial drafting and design of industrial components.# Companies that manufacture physical products and that have production process equipment need their products, facilities and equipment drawn, detailed and designed prior to their manufacture or installation.#Students gain an overview of manufacturing processes through hands on lab classes in CNC machining, welding and electrical controls as well as Computer Aided design program training and conversion of 3D designs into CNC programs and rapid prototyping of designs. Students will take classes in materials and maintenance technologies to have a well rounded background to base their drafting designs on utilizing their hands on experience with industrial equipment. Students are able to progress onto Bachelor's programs if they desire to further their education in this specialty.

Program Requirements

Code	Title	Hours
General Education Requirements [1]		
MATH 140	College Algebra	4
ENGLISH 101	Composition	3
Social and Behavioral Sciences		3
Fine Arts/Humanities		3
Physical Sciences/Life Sciences		3
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
or 340MFGT 19	Manual Machining II	
340MFGT 170	CAD I	3
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 188	Industrial Electricity I	3
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 270	CAD II Detailing	3
340MFGT 274	Materials II - Testing and Analysis	3
340MFGT 287	Maintenance Technologies I	3
340MFGT 290	Process Technology I	3
Total Hours		**61**

[1] At least one course must meet the Human Diversity (HD) (p. 605) requirement.

Pathway

This is an **example course sequence** for students interested in pursuing Computer-Aided Drafting Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology, and an Advanced

Certificate (AC) and Associate in Applied Science (AAS) in Computer-Aided Drafting Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 110	CNC I Operations	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 170	CAD I	3
340MFGT 188	Industrial Electricity I	3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 3		
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 270	CAD II Detailing	3
340MFGT 290	Process Technology I	3
Social and Behavioral Sciences course (HD) [1]		3
MATH 140	College Algebra [1]	4
	Hours	**16**
Semester 4		
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 274	Materials II - Testing and Analysis	3
340MFGT 287	Maintenance Technologies I	3
Fine Arts/Humanities course (HD) [1]		3
Physical Sciences/Life Sciences course [1]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education course

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Mechanical Engineering Technologists and Technicians

Job Description

Apply theory and principles of mechanical engineering to modify, develop, test, or adjust machinery and equipment under direction of engineering staff or physical scientists.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$50,291
Median 50th Percentile	$69,502
Senior-Level 90th Percentile	$101,031

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$33
Senior-Level 90th Percentile	$49

Annual Job Openings

28 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.80%
A certificate	32.84%
Some college	8.76%
An Associate degree	14.09%
A Bachelor's degree	36.52%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

36.52% continue their education beyond an associate degree

Industrial Engineering Technologists and Technicians

Job Description

Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,990
Median 50th Percentile	$73,906
Senior-Level 90th Percentile	$101,408

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$36
Senior-Level 90th Percentile	$49

Annual Job Openings

63 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	21.64%
A certificate	1.25%
Some college	36.92%
An Associate degree	25.54%
A Bachelor's degree	14.65%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

14.65% continue their education beyond an associate degree

Electrical and Electronics Drafters

Job Description

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,347
Median 50th Percentile	$63,825
Senior-Level 90th Percentile	$103,436

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$50

Annual Job Openings

12 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	6.10%
A certificate	21.07%
Some college	6.74%
An Associate degree	23.56%
A Bachelor's degree	40.08%
A Master's or Professional degree	2.46%
A Doctoral degree or more	0.00%

42.54% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Construction Carpentry, Basic Certificate

College(s): KK

Program Code: 0775

The Basic Certificate in Construction Carpentry prepares students for an entry level apprentice position with a construction contractor. The program provides instruction in tool safety and usage, construction materials, work site safety, blueprint reading, and mathematical concepts. Course content also includes an introduction to the trades and basic ARC welding. Theory and practical "hands-on" application are emphasized throughout the program. Students will receive the OSHA Construction Safety and Health 30-hour Certification and Scaffold Certification upon successful completion of the program.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
332TECH 410	Interior Construction I	4
332TECH 429	Basic Math & Specifications	2
332TECH 432	Basic Arc Welding	2
332TECH 449	Professional Development	2
332TECH 472	Vocational Physical Training	2
332TECH 581	Concrete Framing	2
332TECH 582	Residential Carpentry	2
332TECH 583	Basic Hand Tools	2
432CMGT 604	Blueprint and Specifications	3
432CMGT 609	Construction Safety II	3
CIS 120	Introduction to Computer Applications	3
Total Hours		**27**

Pathway

This is an **example course sequence** for students interested in Construction Carpentry. If this pathway is followed as outlined, student will earn a Basic Certificate (BC) for Construction Carpentry. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
PHASE 1		
CIS 120	Introduction to Computer Applications	3
432CMGT 604	Blueprint and Specifications	3
432CMGT 609	Construction Safety II	3
332TECH 429	Basic Math & Specifications	2
332TECH 432	Basic Arc Welding	2
332TECH 472	Vocational Physical Training	2
332TECH 583	Basic Hand Tools	2
PHASE 2		
332TECH 410	Interior Construction I	4
332TECH 449	Professional Development	2
332TECH 581	Concrete Framing	2
332TECH 582	Residential Carpentry	2
	Hours	**27**
	Total Hours	**27**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional

guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Carpenters

Job Description

Help carpenters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,913
Median 50th Percentile	$42,156
Senior-Level 90th Percentile	$68,548

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	78.94%
A certificate	3.10%
Some college	17.96%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Carpenters

Job Description

Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall, and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,615
Median 50th Percentile	$64,671
Senior-Level 90th Percentile	$115,647

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$31
Senior-Level 90th Percentile	$56

Annual Job Openings

1035 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	70.13%
A certificate	21.46%
Some college	8.41%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Construction Managers

Job Description

Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,400
Median 50th Percentile	$93,632
Senior-Level 90th Percentile	$168,562

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$45
Senior-Level 90th Percentile	$81

Annual Job Openings

665 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	5.00%
A Bachelor's degree	90.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

90.00% continue their education beyond an associate degree

Construction Management, Associate in Applied Science

College(s): KK

Program Code: 0375

The Associate in Applied Science degree program in Construction Management prepares students to receive the education, training, and business knowledge necessary for employment in the construction industry. The program offers classroom and lab experiences led by instructors who are experienced as superintendents or project managers for some of the largest construction firms in the country.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		12
Required Program Core		
BUSINES 181	Financial Accounting	4
BUSINES 269	Principles Of Management	3
CIS 120	Introduction to Computer Applications	3
432CMGT 601	Introduction to Construction	2
432CMGT 602	Methods of Building Construction	3
432CMGT 603	Building Materials and Testing	3
432CMGT 604	Blueprint and Specifications	3
432CMGT 605	Construction Cost Estimating	3
432CMGT 606	Construction Contracting Specs	3
432CMGT 607	Construction Scheduling/Management	3
432CMGT 608	Project Management	3
432CMGT 609	Construction Safety II	3
ENGLISH 107	Report Writing	3
332TECH 449	Professional Development	2
Program Electives		
Students should meet with a College Advisor for selection of elective courses.		9
Total Hours		**65**

1. Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social & Behavioral Sciences, or Physical & Life Sciences.
2. At least one course must meet the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in earning a degree in Construction Management. If the pathway is followed as outlined, student will earn an Associate in Applied Science degree. Courses may be substituted within the indicated categories (except Communications courses).

This pathway is a suggested set of courses that will allow you to earn an Associate in Applied Science (AAS) in Construction Management degree from the City Colleges of Chicago. This degree is required for construction managers. Construction management and technology is a broad field and this degree will prepare you for well-paying management positions.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
BUSINES 111	Introduction To Business [2]	3
CIS 120	Introduction to Computer Applications	3
432CMGT 601	Introduction to Construction	2
432CMGT 602	Methods of Building Construction	3

Any Art, Music, or Theater Art course [1]		3
	Hours	**17**
Semester 2		
432CMGT 603	Building Materials and Testing	3
432CMGT 604	Blueprint and Specifications	3
Mathematics or Life Sciences or Physical Sciences course [1]		3-4
BUSINES 181	Financial Accounting	4
Social and Behavioral Sciences course [1]		3
	Hours	**16-17**
Semester 3		
Additional General Education course (HD) [1]		3
432CMGT 605	Construction Cost Estimating	3
432CMGT 606	Construction Contracting Specs	3
ENGLISH 107	Report Writing	3
BUSINES 269	Principles Of Management	3
332TECH 449	Professional Development	2
	Hours	**17**
Semester 4		
432CMGT 607	Construction Scheduling/Management	3
432CMGT 608	Project Management	3
432CMGT 609	Construction Safety II	3
Elective [2]		3
Elective [2]		3
	Hours	**15**
	Total Hours	**65-66**

[1] General Education Requirements
[2] Students should meet with a College Advisor for selection of elective courses.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Construction Trades and Extraction Workers

Job Description

Directly supervise and coordinate activities of construction or extraction workers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$55,600
Median 50th Percentile	$101,899
Senior-Level 90th Percentile	$139,566

Hourly Wages

Entry-Level 10th Percentile	$27
Median 50th Percentile	$49
Senior-Level 90th Percentile	$67

Annual Job Openings

622 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	42.74%
A certificate	27.04%
Some college	7.84%
An Associate degree	11.88%
A Bachelor's degree	10.49%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.49% continue their education beyond an associate degree

Construction Masonry, Basic Certificate

College(s): KK

Program Code: 0759

The Basic Certificate in Construction Masonry is designed to prepare students for employment in the residential and commercial masonry sector of the construction industry. Through theory, lectures and hands on work, students are trained in the skills needed to gain proficiency in brick, concrete, stonework, block and form work. With training on the proper use and maintenance of tools and job safety, completion of this certificate will prepare students for a career as an industry apprentice, journeyman mason, job site foreman, or contractor.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
432CMGT 609	Construction Safety II	3
332TECH 427	Masonry Tools & Equipment	2
332TECH 428	Mortar	3
332TECH 429	Basic Math & Specifications	2
332TECH 430	Masonry Installations Procedures	3
332TECH 440	Introduction to Construction Masonry	4
332TECH 449	Professional Development	2
332TECH 472	Vocational Physical Training	2
432CMGT 604	Blueprint and Specifications	3
CIS 120	Introduction to Computer Applications	3
Total Hours		**27**

Pathway

This is an **example course sequence** for students interested in earning the Basic Certificate (BC) in Construction Masonry. If this pathway is followed as outlined, you will earn a BC. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
PHASE 1		
CIS 120	Introduction to Computer Applications	3
432CMGT 609	Construction Safety II	3
332TECH 427	Masonry Tools & Equipment	2
332TECH 429	Basic Math & Specifications	2
332TECH 440	Introduction to Construction Masonry	4
332TECH 472	Vocational Physical Training	2
PHASE 2		
432CMGT 604	Blueprint and Specifications	3
332TECH 428	Mortar	3
332TECH 430	Masonry Installations Procedures	3
332TECH 449	Professional Development	2
	Hours	**27**
	Total Hours	**27**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Cement Masons and Concrete Finishers

Job Description

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,748
Median 50th Percentile	$78,515
Senior-Level 90th Percentile	$109,118

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$38
Senior-Level 90th Percentile	$52

Annual Job Openings

127 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	86.72%
A certificate	12.65%
Some college	0.00%
An Associate degree	0.62%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Brickmasons and Blockmasons

Job Description

Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances, to construct or repair walls, partitions, arches, sewers, and other structures.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,185
Median 50th Percentile	$77,782
Senior-Level 90th Percentile	$108,396

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$37
Senior-Level 90th Percentile	$52

Annual Job Openings

105 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	83.90%
A certificate	0.00%
Some college	13.38%
An Associate degree	2.71%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Stonemasons

Job Description

Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,212
Median 50th Percentile	$47,403
Senior-Level 90th Percentile	$98,401

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$23
Senior-Level 90th Percentile	$47

Annual Job Openings

6 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	70.47%
A certificate	29.53%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Cosmetology Teacher Training 1000-Hour Program, Basic Certificate

College(s): TR

Program Code: 0415

The purpose of the Cosmetology Teacher Training Program is to provide students the opportunity to prepare, train and develop skills necessary to teach cosmetology or any practices related to the Cosmetology industry. This training will allow individuals to enter a skilled workforce which will promote personal and economic growth, contribute to community stability and provide and improve quality of life. This course is intended for any person who has an active State of Illinois Cosmetology License and is pursuing to further their education by obtaining a Cosmetology Teacher's License.

Program Requirements

Code	Title	Hours
Required Program Core		
COSMET 211	Post-Graduate Cosmetology Training I	6
COSMET 212	Post-Graduate Cosmetology Training II	6
Required Work-Based Learning Courses		
COSMET 223	Basic Teaching Skills for Career Education Instructors	8
COSMET 224	Principles and Practice in Cosmetology Education	8
Total Hours		**28**

Pathway

This is an **example course sequence** for students interested in pursuing a Basic Certificate (BC) in Cosmetology Teacher Training 1000-Hour Program. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
COSMET 211	Post-Graduate Cosmetology Training I	6
COSMET 212	Post-Graduate Cosmetology Training II	6
	Hours	**12**
Semester 2		
COSMET 223	Basic Teaching Skills for Career Education Instructors	8
COSMET 224	Principles and Practice in Cosmetology Education	8
	Hours	**16**
	Total Hours	**28**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Hairdressers, Hairstylists, and Cosmetologists

Job Description

Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$20,561
Median 50th Percentile	$34,502
Senior-Level 90th Percentile	$76,952

Hourly Wages

Entry-Level 10th Percentile	$10
Median 50th Percentile	$17
Senior-Level 90th Percentile	$37

Annual Job Openings

1633 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.93%
A certificate	78.97%
Some college	0.10%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Barbers

Job Description

Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$10,230
Median 50th Percentile	$25,201
Senior-Level 90th Percentile	$64,052

Hourly Wages

Entry-Level 10th Percentile	$5
Median 50th Percentile	$12
Senior-Level 90th Percentile	$31

Annual Job Openings

131 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.49%
A certificate	28.70%
Some college	11.74%
An Associate degree	11.13%
A Bachelor's degree	1.68%
A Master's or Professional degree	1.25%
A Doctoral degree or more	0.00%

2.93% continue their education beyond an associate degree

Cosmetology Teacher Training 500-Hour Program, Basic Certificate

College(s): TR

Program Code: 0416

The purpose of the Cosmetology Teacher Training Program is to provide students the opportunity to prepare, train and develop skills necessary to teach cosmetology or any practices related to the Cosmetology industry. This training will allow individuals to enter a skilled workforce which will promote personal and economic growth, contribute to community stability and provide and improve quality of life. This course is intended for any person who has an active State of Illinois Cosmetology License and is pursuing to further their education by obtaining a Cosmetology Teacher's License.

Program Requirements

Code	Title	Hours
Required Work-Based Learning Courses		
COSMET 223	Basic Teaching Skills for Career Education Instructors	8
COSMET 224	Principles and Practice in Cosmetology Education	8
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in pursuing a Basic Certificate (BC) in Cosmetology Teacher Training. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
COSMET 223	Basic Teaching Skills for Career Education Instructors	8
COSMET 224	Principles and Practice in Cosmetology Education	8
	Hours	**16**
	Total Hours	**16**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Hairdressers, Hairstylists, and Cosmetologists

Job Description

Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$20,561
Median 50th Percentile	$34,502
Senior-Level 90th Percentile	$76,952

Hourly Wages

Entry-Level 10th Percentile	$10
Median 50th Percentile	$17
Senior-Level 90th Percentile	$37

Annual Job Openings

1633 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.93%
A certificate	78.97%
Some college	0.10%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Barbers

Job Description

Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$10,230
Median 50th Percentile	$25,201
Senior-Level 90th Percentile	$64,052

Hourly Wages

Entry-Level 10th Percentile	$5
Median 50th Percentile	$12
Senior-Level 90th Percentile	$31

Annual Job Openings

131 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.49%
A certificate	28.70%
Some college	11.74%
An Associate degree	11.13%
A Bachelor's degree	1.68%
A Master's or Professional degree	1.25%
A Doctoral degree or more	0.00%

2.93% continue their education beyond an associate degree

Cosmetology, Advanced Certificate

College(s): TR

Program Code: 0349

The Advanced Certificate program in the field of Cosmetology offers challenging and rewarding opportunities designed to give students thorough training in the art, skill and applied science used in the treatment of hair, nails, and skin. The program meets the standards of the Illinois Department of Finance and Professional Regulation (IDFPR) in total hours, teaching staff, equipment, facilities, libraries, and course content.

Students are required to complete a specific number of hours in the Technical Center Styling Salon. Once students have completed all coursework and laboratory hours, they are ready to sit for the licensure examination through the IDFPR. Students must be licensed in order to practice Cosmetology in Illinois.

Program Requirements

Code	Title	Hours
Required Program Core		
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
COSMET 105	Salon Technology I	7
COSMET 106	Salon Technology II	7
COSMET 201	Advanced Cosmetology	6
COSMET 202	Cosmetology Summative Seminar	6
Total Hours		**50**

Pathway

This is an **example course sequence** for students interested in pursuing an Advanced Certificate (AC) in Cosmetology. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
	Hours	**12**
Semester 2		
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
	Hours	**12**
Semester 3		
COSMET 105	Salon Technology I	7
COSMET 106	Salon Technology II	7
	Hours	**14**
Semester 4		
COSMET 201	Advanced Cosmetology	6
COSMET 202	Cosmetology Summative Seminar	6
	Hours	**12**
	Total Hours	**50**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Hairdressers, Hairstylists, and Cosmetologists

Job Description

Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$20,561
Median 50th Percentile	$34,502
Senior-Level 90th Percentile	$76,952

Hourly Wages

Entry-Level 10th Percentile	$10
Median 50th Percentile	$17
Senior-Level 90th Percentile	$37

Annual Job Openings

1633 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.93%
A certificate	78.97%
Some college	0.10%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Cosmetology, Associate in Applied Science

College(s): TR

Program Code: 0461

The Associate in Applied Science degree in Cosmetology offers students an opportunity to gain industry knowledge and practice in haircutting, styling, chemical services, skincare, and nailcare. Additionally, students will acquire information about operating and owning a business to best prepare them to assume key consulting positions within the industry and to successfully own and manage their own salon. Training with live models and consultation with beauty-industry professionals are highlights of the program in emphasizing a myriad of career opportunities in the field. Required proficiency exams and exam preparation/reviews are part of the program in meeting the Illinois Department of Professional Regulation (IDFPR) standards. All discipline courses are taught by licensed teaching staff, using standard industry equipment, approved facilities, and quality course content that meets industry requirements.

In the Cosmetology AAS degree program, students will also complete general education courses that include English composition, mathematics, computer information science, and business courses. Additional elective coursework may cover topics in art or theater art to enhance visual acuity and perception in executing hair design and styling.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Mathematics course		3
CIS 120	Introduction to Computer Applications	3
Social and Behavioral Sciences course (HD)		3
BUSINES 111	Introduction To Business	3
or BUSINES 21(	Entrepreneurship	
Required Program Core		
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
COSMET 105	Salon Technology I	7
COSMET 106	Salon Technology II	7
COSMET 201	Advanced Cosmetology	6
COSMET 202	Cosmetology Summative Seminar	6
Total Hours		**65**

Pathway

This is an **example course sequence** for students interested in Cosmetology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) and Associate in Applied Science degree (AAS) in Cosmetology. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
COSMET 101	Intro to Cosmetology/Barbering	6
COSMET 102	Hair Cutting Technology	6
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 2		
COSMET 103	Basic Styling Technology	6
COSMET 104	Basic Chemical Technology	6
CIS 120	Introduction to Computer Applications [1]	3
	Hours	**15**

Semester 3		
COSMET 105	Salon Technology I	7
COSMET 106	Salon Technology II	7
	Hours	**14**
Semester 4		
COSMET 201	Advanced Cosmetology	6
COSMET 202	Cosmetology Summative Seminar	6
	Hours	**12**
Semester 5		
MATH 118	General Education Math [1]	4
Social and Behavioral Sciences course (HD) [1]		3
BUSINES 111 or BUSINES 216	Introduction To Business [1] or Entrepreneurship	3
	Hours	**10**
	Total Hours	**66**

[1] General Education Requirement

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Hairdressers, Hairstylists, and Cosmetologists

Job Description

Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$20,561
Median 50th Percentile	$34,502
Senior-Level 90th Percentile	$76,952

Hourly Wages

Entry-Level 10th Percentile	$10
Median 50th Percentile	$17
Senior-Level 90th Percentile	$37

Annual Job Openings

1633 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.93%
A certificate	78.97%
Some college	0.10%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CPA Preparation–Post Baccalaureate, Advanced Certificate

College(s): HW

Program Code: 0418

The CPA Preparation–Post Baccalaureate program will provide 30 hours of accounting coursework with additional specific credits in business ethics, business communications, and research and analysis as required to sit the Uniform CPA examination.

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 284 or ENGLISH 10	Business Communications Business Writing	3
BUSINES 214 or PHIL 107	The Legal & Social Environment of Business Ethics	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 204 & BUSINES 205	Computer Applications Intermediate Accounting and Intermediate Accounting	4
BUSINES 206	Auditing	3
BUSINES 207	Intermediate Accounting II	3
BUSINES 208	Federal Income Tax	3
BUSINES 211 or BUSINES 21	Business Law I Business Law II	3
BUSINES 215	Corporate and Entity Federal Income Tax	3
Program Electives		
Select one of the following:		3
BUSINES 180	Fundamentals Of Accounting	
BUSINES 203	Intro Cost Accounting	
BUSINES 217	Nonprofit Accounting	
BUSINES 218	Advanced Accounting	
BUSINES 249	Independent Research	
BUSINES 250	Computerized Accounting Systems	
BUSINES 299	Special Topics	
Total Hours		**36**

Pathway

This is an **example course sequence** for students interested in pursuing CPA Preparation–Post Baccalaureate. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate.

Semester-by-Semester Program Plan for Full-Time Student

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BUSINES 181	Financial Accounting	4
BUSINES 211	Business Law I	3
BUSINES 284	Business Communications	3
	Hours	**10**
Semester 2		
BUSINES 182	Managerial Accounting	4
BUSINES 214 or PHIL 107	The Legal & Social Environment of Business or Ethics	3
	Hours	**7**
Semester 3		
Select one of the following Electives:		3
BUSINES 203	Intro Cost Accounting	
BUSINES 180	Fundamentals Of Accounting	

BUSINES 217	Nonprofit Accounting	
BUSINES 218	Advanced Accounting	
BUSINES 249	Independent Research	
BUSINES 250	Computerized Accounting Systems	
BUSINES 299	Special Topics	
BUSINES 204	Computer Applications Intermediate Accounting [1]	1
BUSINES 205	Intermediate Accounting [1]	3
BUSINES 208	Federal Income Tax	3
	Hours	**10**
Semester 4		
BUSINES 206	Auditing	3
BUSINES 207	Intermediate Accounting II	3
BUSINES 215	Corporate and Entity Federal Income Tax	3
	Hours	**9**
	Total Hours	**36**

[1] Students must be concurrently enrolled in BUSINES 204 Computer Applications Intermediate Accounting and BUSINES 205 Intermediate Accounting.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Accountants and Auditors

Job Description

Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$55,886
Median 50th Percentile	$84,169
Senior-Level 90th Percentile	$149,744

Hourly Wages

Entry-Level 10th Percentile	$27
Median 50th Percentile	$40
Senior-Level 90th Percentile	$72

Annual Job Openings

2383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	39.48%
An Associate degree	14.08%
A Bachelor's degree	43.60%
A Master's or Professional degree	2.84%
A Doctoral degree or more	0.00%

46.44% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Criminal Justice: Private Police Services, Advanced Certificate

College(s): DA

Program Code: 0319

The Advanced Certificate program in Criminal Justice: Private Police is focused on the study of theory and practices of current trends in private police services, criminal and civil law for private security officers. The program can lead to promotion to security directors, middle-management positions or self-employment.

Program Requirements

Code	Title	Hours
Required Program Core		
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 114	Administration of Juvenile Justice	3
CRM JUS 170	Scope & Purpose of Private Policing	3
CRM JUS 172	Management & Supervision for Private Policing	3
CRM JUS 174	Law For Private Police	3
CRM JUS 211	Intro To Investigation	3
CRM JUS 222	Professional Responsibility	3
CRM JUS 234	Criminal Law & Procedure	3
CIS 120	Introduction to Computer Applications	3
ENGLISH 107	Report Writing	3
Total Hours		**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Private Detectives and Investigators

Job Description

Gather, analyze, compile, and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,974
Median 50th Percentile	$78,005
Senior-Level 90th Percentile	$117,774

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$38
Senior-Level 90th Percentile	$57

Annual Job Openings

96 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	25.11%
A certificate	4.25%
Some college	12.07%
An Associate degree	16.41%
A Bachelor's degree	42.15%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

42.15% continue their education beyond an associate degree

34.34% continue their education beyond an associate degree

Transit and Railroad Police

Job Description

Protect and police railroad and transit property, employees, or passengers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$61,192
Median 50th Percentile	$86,928
Senior-Level 90th Percentile	$151,968

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$42
Senior-Level 90th Percentile	$73

Annual Job Openings

5 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.57%
A certificate	13.78%
Some college	25.93%
An Associate degree	5.39%
A Bachelor's degree	28.41%
A Master's or Professional degree	5.93%
A Doctoral degree or more	0.00%

CITY COLLEGES OF CHICAGO

Criminal Justice: Private Police Services, Basic Certificate

College(s): DA

Program Code: 0326

Criminal Justice: Private Police Services, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 170	Scope & Purpose of Private Policing	3
CRM JUS 172	Management & Supervision for Private Policing	3
CRM JUS 174	Law For Private Police	3
CRM JUS 211	Intro To Investigation	3
CRM JUS 222	Professional Responsibility	3
Total Hours		**18**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Private Detectives and Investigators

Job Description

Gather, analyze, compile, and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,974
Median 50th Percentile	$78,005
Senior-Level 90th Percentile	$117,774

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$38
Senior-Level 90th Percentile	$57

Annual Job Openings

96 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	25.11%
A certificate	4.25%
Some college	12.07%
An Associate degree	16.41%
A Bachelor's degree	42.15%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

42.15% continue their education beyond an associate degree

Transit and Railroad Police

Job Description

Protect and police railroad and transit property, employees, or passengers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$61,192
Median 50th Percentile	$86,928
Senior-Level 90th Percentile	$151,968

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$42
Senior-Level 90th Percentile	$73

Annual Job Openings

5 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.57%
A certificate	13.78%
Some college	25.93%
An Associate degree	5.39%
A Bachelor's degree	28.41%
A Master's or Professional degree	5.93%
A Doctoral degree or more	0.00%

34.34% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Criminal Justice: Public Police Services, Advanced Certificate

College(s): DA, HW*, KK, OH, TR, WR

Program Code: 0295

**Beginning Fall 2016, this program is no longer accepting new students at Harold Washington. Please refer to CCC's transfer degree in Criminal Justice.*

Program Requirements

Code	Title	Hours
Required Program Core		
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 114	Administration of Juvenile Justice	3
CRM JUS 202	Issues In Criminal Justice	3
CRM JUS 211	Intro To Investigation	3
CRM JUS 221	Police Organization & Management	3
CRM JUS 222	Professional Responsibility	3
CRM JUS 234	Criminal Law & Procedure	3
CRM JUS 256	Constitutional Law	3
CIS 120	Introduction to Computer Applications	3
CRM JUS 155	Introduction To Corrections	3
or ENGLISH 107	Report Writing	
Total Hours		**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Police and Detectives

Job Description

Directly supervise and coordinate activities of members of police force.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$109,811
Median 50th Percentile	$147,706
Senior-Level 90th Percentile	$177,833

Hourly Wages

Entry-Level 10th Percentile	$53
Median 50th Percentile	$71
Senior-Level 90th Percentile	$85

Annual Job Openings

183 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	56.42%
A certificate	0.92%
Some college	19.62%
An Associate degree	3.62%
A Bachelor's degree	19.42%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

19.42% continue their education beyond an associate degree

First-Line Supervisors of Correctional Officers

Job Description

Directly supervise and coordinate activities of correctional officers and jailers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$94,734
Median 50th Percentile	$115,508
Senior-Level 90th Percentile	$163,958

Hourly Wages

Entry-Level 10th Percentile	$46
Median 50th Percentile	$56
Senior-Level 90th Percentile	$79

Annual Job Openings

30 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	58.99%
A certificate	5.15%
Some college	2.28%
An Associate degree	22.88%
A Bachelor's degree	10.69%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.69% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Criminal Justice: Public Police Services, Associate in Applied Science

College(s): DA, HW*, KK, OH, TR, WR

Program Code: 0294

**Beginning Fall 2016, this program is no longer accepting new students at Harold Washington. Please refer to CCC's transfer degree in Criminal Justice.*

The AAS program in Criminal Justice: Public Police Services studies the theory and practice of contemporary criminal justice for students who plan on careers as police offices or other criminal justice positions, as well as police who wish to advance in rank or into administrative level of criminal justice.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Fine Arts & Humanities course (HD)		3
Social and Behavioral Sciences course		3
Mathematics, Physical Sciences, or Life Sciences course		3
Additional General Education course		3
Required Program Core		
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 114	Administration of Juvenile Justice	3
CRM JUS 202	Issues In Criminal Justice	3
CRM JUS 211	Intro To Investigation	3
CRM JUS 221	Police Organization & Management	3
CRM JUS 222	Professional Responsibility	3
CRM JUS 234	Criminal Law & Procedure	3
CRM JUS 256	Constitutional Law	3
CIS 120	Introduction to Computer Applications	3
Select a minimum of 6 credit hours of the following:		6
POL SCI 201	The National Government	
PSYCH 201	General Psychology	
SOC 201	Intro To the Study Of Society	
Program Electives		
Students must select a minimum of 12 credit hours from the following courses or others as recommended by a College Advisor:		12
CRM JUS 155	Introduction To Corrections	
CRM JUS 250	Introduction To Criminology	
ENGLISH 107	Report Writing	
Additional Elective		
Total Hours		**60**

One course must fulfill the Human Diversity (HD) requirement.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Police and Detectives

Job Description

Directly supervise and coordinate activities of members of police force.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$109,811
Median 50th Percentile	$147,706
Senior-Level 90th Percentile	$177,833

Hourly Wages

Entry-Level 10th Percentile	$53
Median 50th Percentile	$71
Senior-Level 90th Percentile	$85

Annual Job Openings

183 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	56.42%
A certificate	0.92%
Some college	19.62%
An Associate degree	3.62%
A Bachelor's degree	19.42%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

19.42% continue their education beyond an associate degree

First-Line Supervisors of Correctional Officers

Job Description

Directly supervise and coordinate activities of correctional officers and jailers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$94,734
Median 50th Percentile	$115,508
Senior-Level 90th Percentile	$163,958

Hourly Wages

Entry-Level 10th Percentile	$46
Median 50th Percentile	$56
Senior-Level 90th Percentile	$79

Annual Job Openings

30 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	58.99%
A certificate	5.15%
Some college	2.28%
An Associate degree	22.88%
A Bachelor's degree	10.69%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.69% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Criminal Justice: Public Police Services, Basic Certificate

College(s): DA, KK, OH, TR, WR

Program Code: 0296

Criminal Justice: Public Police Services, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 114	Administration of Juvenile Justice	3
CRM JUS 202	Issues In Criminal Justice	3
CRM JUS 211	Intro To Investigation	3
CRM JUS 234	Criminal Law & Procedure	3
or CRM JUS 25	Constitutional Law	
Total Hours		**15**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Police and Detectives

Job Description

Directly supervise and coordinate activities of members of police force.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$109,811
Median 50th Percentile	$147,706
Senior-Level 90th Percentile	$177,833

Hourly Wages

Entry-Level 10th Percentile	$53
Median 50th Percentile	$71
Senior-Level 90th Percentile	$85

Annual Job Openings

183 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	56.42%
A certificate	0.92%
Some college	19.62%
An Associate degree	3.62%
A Bachelor's degree	19.42%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

19.42% continue their education beyond an associate degree

First-Line Supervisors of Correctional Officers

Job Description

Directly supervise and coordinate activities of correctional officers and jailers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$94,734
Median 50th Percentile	$115,508
Senior-Level 90th Percentile	$163,958

Hourly Wages

Entry-Level 10th Percentile	$46
Median 50th Percentile	$56
Senior-Level 90th Percentile	$79

Annual Job Openings

30 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	58.99%
A certificate	5.15%
Some college	2.28%
An Associate degree	22.88%
A Bachelor's degree	10.69%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.69% continue their education beyond an associate degree

Culinary Arts, Advanced Certificate

College(s): KK

Program Code: 0363

The Advanced Certificate program in Culinary Arts is comprised of all courses included in the parent degree program with the exception of the general education classes and the advanced cooking course. The Advanced Certificate program focuses on advanced techniques and offers extensive practice utilizing contemporary and classical menus. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

Program Requirements

Code	Title	Hours
Required Program Core		
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 706	Introduction to Garde Manger	4
330CUL 708	Chef's Training I-Section B	4
330CUL 709	Advanced Garde Manger	4
330CUL 710	Plant Based Cooking	4
330CUL 714	Nutrition for Chefs	3
330CUL 717	Food Costing & Control	3
330CUL 730	International Cooking	4
HMGT 724	Hospitality Management	3
Total Hours		**38**

Pathway

This is an **example course sequence** for students interested in earning a degree in Culinary Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Culinary Arts. It does not represent a contract, nor does it guarantee course availability.

The AC program in Culinary Arts is comprised of all courses included in the parent Culinary Arts 362 AAS program with the exception of the general education classes and advanced cooking course. The Advanced Certificate Program focuses on advanced techniques and offers extensive practice utilizing contemporary and classical menus. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

The Basic Certificate in the Culinary Arts curriculum introduces the student to the commercial kitchen environment by covering safety and sanitation procedures, basic mise en place including knife skills and station set-up, proper use and care of equipment, classical cooking terminology, standard cooking methods, stock preparation, and sauce production. This program is designed to give the student the opportunity to investigate and assess Culinary Arts as a possible career goal.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
	Hours	**13**
Semester 2		
330CUL 706	Introduction to Garde Manger	4
330CUL 730	International Cooking	4
HMGT 724	Hospitality Management	3
330CUL 714	Nutrition for Chefs	3
	Hours	**14**
Semester 3		
330CUL 709	Advanced Garde Manger	4
330CUL 717	Food Costing & Control	3
330CUL 710	Plant Based Cooking	4
	Hours	**11**
	Total Hours	**38**

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Chefs and Head Cooks

Job Description

Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$33,896
Median 50th Percentile	$62,359
Senior-Level 90th Percentile	$104,093

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$30
Senior-Level 90th Percentile	$50

Annual Job Openings

455 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	13.80%
A certificate	17.24%
Some college	3.45%
An Associate degree	51.72%
A Bachelor's degree	13.79%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

13.79% continue their education beyond an associate degree

First-Line Supervisors of Food Preparation and Serving Workers

Job Description

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,139
Median 50th Percentile	$42,530
Senior-Level 90th Percentile	$68,136

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

2776 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.94%
A certificate	9.69%
Some college	2.09%

An Associate degree	7.28%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Cooks, Restaurant

Job Description

Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,868
Median 50th Percentile	$40,187
Senior-Level 90th Percentile	$51,391

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$25

Annual Job Openings

5041 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	62.94%
A certificate	17.56%
Some college	11.21%
An Associate degree	4.77%
A Bachelor's degree	0.87%
A Master's or Professional degree	0.00%
A Doctoral degree or more	2.65%

3.52% continue their education beyond an associate degree

Cooks, Private Household

Job Description

Prepare meals in private homes. Includes personal chefs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,069
Median 50th Percentile	$48,389
Senior-Level 90th Percentile	$103,185

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$50

Annual Job Openings

4 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	46.15%
A certificate	38.46%
Some college	3.85%
An Associate degree	11.54%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Culinary Arts, Associate in Applied Science

College(s): KK

Program Code: 0362

The Associate in Applied Science degree program in Culinary Arts is a sequential learning program taught over four semesters. All semesters include lecture, discussion, demonstration and hands-on production that allow students to practice the techniques of food production in a commercial food service environment. The curriculum includes additional methods and techniques that will increase the student's repertoire of ethnic and classical menus. In addition, the coursework covers management skills, cost control, budgeting techniques, merchandising, business planning, resume writing and interviewing techniques. General education classes must be completed to satisfy the degree requirements. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
Mathematics or Physical Sciences or Life Sciences course		3
Fine Arts & Humanities course		3
Humanities course		3
Social and Behavioral Sciences course		3
Required Program Core		
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 706	Introduction to Garde Manger	4
330CUL 708	Chef's Training I-Section B	4
330CUL 709	Advanced Garde Manger	4
330CUL 710	Plant Based Cooking	4
330CUL 714	Nutrition for Chefs	3
330CUL 717	Food Costing & Control	3
330CUL 728	Restaurant Service	7
330CUL 730	International Cooking	4
HMGT 724	Hospitality Management	3
HMGT 860	Hospitality Internship	4
Total Hours		**64**

[1] One GE course must be HD

Pathway

This is an **example course sequence** for students interested in earning a degree in Culinary Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), an Advanced Certificate (AC) and an Associate in Applied Science (AAS) degree in Culinary Arts. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

The AAS degree program in Culinary Arts is a sequential learning program taught over four semesters. All semesters include lecture, discussion, demonstration and hands-on production that allow students to practice the techniques of food production in a commercial food

service environment. The curriculum includes additional methods and techniques that will increase the student's repertoire of ethnic and classical menus. In addition, the coursework covers management skills, cost control, budgeting techniques, merchandising, business planning, resume writing and interviewing techniques. General education classes must be completed to satisfy the degree requirements. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

The AC program in Culinary Arts is comprised of all courses included in the parent Culinary Arts 362 AAS program with the exception of the general education classes and advanced cooking course. The Advanced Certificate Program focuses on advanced techniques and offers extensive practice utilizing contemporary and classical menus. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

The Basic Certificate in the Culinary Arts curriculum introduces the student to the commercial kitchen environment by covering safety and sanitation procedures, basic mise en place including knife skills and station set-up, proper use and care of equipment, classical cooking terminology, standard cooking methods, stock preparation, and sauce production. This program is designed to give the student the opportunity to investigate and assess Culinary Arts as a possible career goal.

Semester-by Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
	Hours	**16**
Semester 2		
Social and Behavioral Sciences course [1]		3
330CUL 706	Introduction to Garde Manger	4
330CUL 730	International Cooking	4
HMGT 724	Hospitality Management	3
330CUL 714	Nutrition for Chefs	3
	Hours	**17**
Semester 3		
330CUL 709	Advanced Garde Manger	4
330CUL 717	Food Costing & Control	3
330CUL 710	Plant Based Cooking	4
Fine Arts & Humanities course [1]		3
BIOLOGY 107	Nutrition-Consumer Education [1]	3
	Hours	**17**
Semester 4		
HMGT 860	Hospitality Internship	4
Humanities course (HD) [1]		3
330CUL 728	Restaurant Service	7
	Hours	**14**
	Total Hours	**64**

[1] General Education Requirement

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Chefs and Head Cooks

Job Description

Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$33,896
Median 50th Percentile	$62,359
Senior-Level 90th Percentile	$104,093

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$30
Senior-Level 90th Percentile	$50

Annual Job Openings

455 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	**% of Jobs**
A high school diploma or less	13.80%
A certificate	17.24%
Some college	3.45%
An Associate degree	51.72%

A Bachelor's degree	13.79%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

13.79% continue their education beyond an associate degree

First-Line Supervisors of Food Preparation and Serving Workers

Job Description

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,139
Median 50th Percentile	$42,530
Senior-Level 90th Percentile	$68,136

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

2776 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.94%
A certificate	9.69%
Some college	2.09%
An Associate degree	7.28%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Cooks, Restaurant

Job Description

Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,868
Median 50th Percentile	$40,187
Senior-Level 90th Percentile	$51,391

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$25

Annual Job Openings

5041 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	62.94%
A certificate	17.56%
Some college	11.21%
An Associate degree	4.77%
A Bachelor's degree	0.87%
A Master's or Professional degree	0.00%
A Doctoral degree or more	2.65%

3.52% continue their education beyond an associate degree

Cooks, Private Household

Job Description

Prepare meals in private homes. Includes personal chefs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,069
Median 50th Percentile	$48,389
Senior-Level 90th Percentile	$103,185

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$50

Annual Job Openings

4 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	46.15%
A certificate	38.46%
Some college	3.85%
An Associate degree	11.54%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Culinary Arts, Basic Certificate

College(s): KK

Program Code: 0364

The Basic Certificate in the Culinary Arts curriculum introduces the student to the commercial kitchen environment by covering safety and sanitation procedures, basic mise en place including knife skills and station set-up, proper use and care of equipment, classical cooking terminology, standard cooking methods, stock preparation, and sauce production. This program is designed to give the student the opportunity to investigate and assess Culinary Arts as a possible career goal.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
Total Hours		**13**

Pathway

This is an **example course sequence** for students interested in earning a degree in Culinary Arts. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Culinary Arts. It does not represent a contract, nor does it guarantee course availability.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
	Hours	**13**
	Total Hours	**13**

This program is offered through the Washburne Culinary & Hospitality Institute at Kennedy-King College.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Cooks, Restaurant

Job Description

Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,826
Median 50th Percentile	$40,140
Senior-Level 90th Percentile	$51,341

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$25

Annual Job Openings

5180 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	62.94%
A certificate	17.56%
Some college	11.21%
An Associate degree	4.77%
A Bachelor's degree	0.87%
A Master's or Professional degree	0.00%
A Doctoral degree or more	2.65%

3.52% continue their education beyond an associate degree

Cybersecurity, Advanced Certificate

College(s): DA, KK, OH, WR

Program Code: 0432

The Cybersecurity Advanced Certificate program provides knowledge and skill set for students pursuing career opportunities in cybersecurity. With a hands-on approach to learning in this program, students acquire essential to cybersecurity technical knowledge relating to using and administering network devices and network operating systems, practice ethical hacking, and engage in information security systems analysis. Students also learn to script and code to monitor, protect against, contain, respond to and recover from cyberattacks.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 103	Fundamentals of Programming	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
COMPSFI 101	Networking Essentials	3
or NET TEC 121	Internetworking I	
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
COMPSFI 212	Scripting for Cybersecurity	3
COMPSFI 213	Ethical Hacking	3
NET TEC 122	Internetworking II	3
or NET TEC 240	Operating Systems/Server I	
Program Electives		
Select a minimum of 3 credit hours of program electives (p. 233)		3
Total Hours		**30**

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
CIS 111	Computer Operations	3
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 281	Web Development III/Server Side Programming	3
CIS 260	Computer Information Systems Field Project	3
CIS 265	Computer Information Systems Internship	3
COMPSFI 101	Networking Essentials	3
COMPSFI 205	Cyber Forensics	3
COMPSFI 215	Information Security Domain	3
COMPSFI 231	Internetworking Security	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Pathway

This is an **example course sequence** for students interested in Cybersecurity. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and Advanced Certificate (AC) in Cybersecurity.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 116	Operating System I	3
CIS 103	Fundamentals of Programming	3
COMPSFI 101 or NET TEC 121	Networking Essentials or Internetworking I	3
	Hours	**9**
Semester 2		
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
	Hours	**9**
Semester 3		
COMPSFI 212	Scripting for Cybersecurity	3
COMPSFI 213	Ethical Hacking	3
NET TEC 122 or NET TEC 240	Internetworking II or Operating Systems/Server I	3
Program Elective (p. 234)		3
	Hours	**12**
	Total Hours	**30**

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
CIS 111	Computer Operations	3
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 281	Web Development III/Server Side Programming	3
CIS 260	Computer Information Systems Field Project	3
CIS 265	Computer Information Systems Internship	3
COMPSFI 101	Networking Essentials	3
COMPSFI 205	Cyber Forensics	3
COMPSFI 215	Information Security Domain	3
COMPSFI 231	Internetworking Security	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
An Associate degree	12.87%
A Bachelor's degree	75.16%
A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

Cybersecurity, Associate in Applied Science

College(s): DA, KK, OH, WR

Program Code: 0433

The Cybersecurity Associate in Applied Science program provides the required knowledge and skill set for students pursuing entry-level career opportunities in Cybersecurity. With a hands-on approach to learning in this program, students acquire comprehensive Cybersecurity technical knowledge required in entry-level cybersecurity jobs.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Fine Arts and Humanities [1]		3
Social and Behavioral Sciences [1]		3
Physical Sciences and Life Sciences		3
Mathematics (Math 118 or higher) [2]		3
Required Program Core		
CIS 103	Fundamentals of Programming	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
COMPSFI 101	Networking Essentials	3
or NET TEC 121	Internetworking I	
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
COMPSFI 212	Scripting for Cybersecurity	3
COMPSFI 213	Ethical Hacking	3
COMPSFI 214	Information Securtiy Systems Analysis	3
NET TEC 122	Internetworking II	3
or NET TEC 240	Operating Systems/Server I	
NET TEC 245	Cloud Computing and Services	3
Required Work-Based Learning Courses		
CIS 260	Computer Information Systems Field Project	3
or CIS 265	Computer Information Systems Internship	
Program Electives		
Select a minimum of 9 credit hours of program electives (p. 235)		9
Total Hours		**60**

[1] One course must satisfy the Human Diversity (HD) requirement
[2] MATH 125 Introductory Statistics recommended

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
CIS 111	Computer Operations	3
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 260	Computer Information Systems Field Project	3
CIS 265	Computer Information Systems Internship	3
CIS 281	Web Development III/Server Side Programming	3
COMPSFI 101	Networking Essentials	3

COMPSFI 205	Cyber Forensics	3
COMPSFI 215	Information Security Domain	3
COMPSFI 216	Info Security Program Management	3
COMPSFI 231	Internetworking Security	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Pathway

This is an **example course sequence** for students interested in pursuing Cybersecurity. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC), an Advanced Certificate (AC), and an Associate in Applied Science (AAS) Degree in Cybersecurity.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 116	Operating System I	3
CIS 103	Fundamentals of Programming	3
COMPSFI 101 or NET TEC 121	Networking Essentials or Internetworking I	3
Mathematics (Math 118 or higher) [1,2]		3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 2		
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
Social and Behavioral Sciences course [1,3]		3
Program Elective (p. 236) [4]		3
	Hours	**15**
Semester 3		
COMPSFI 212	Scripting for Cybersecurity	3
COMPSFI 213	Ethical Hacking	3
NET TEC 122 or NET TEC 240	Internetworking II or Operating Systems/Server I	3
Physical Sciences or Life Sciences course [1]		3
Program Elective (p. 236) [4]		3
	Hours	**15**
Semester 4		
NET TEC 245	Cloud Computing and Services	3
COMPSFI 214	Information Securtiy Systems Analysis	3
CIS 260 or CIS 265	Computer Information Systems Field Project or Computer Information Systems Internship	3
Fine Arts or Humanities course [1,3]		3
Program Elective (p. 236) [4]		3
	Hours	**15**
	Total Hours	**60**

1. General Education course
2. MATH 125 Introductory Statistics recommended
3. One course must satisfy the Human Diversity (HD) requirement
4. Program Elective (p. 236)

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
CIS 111	Computer Operations	3
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 260	Computer Information Systems Field Project	3
CIS 265	Computer Information Systems Internship	3
CIS 281	Web Development III/Server Side Programming	3
COMPSFI 101	Networking Essentials	3
COMPSFI 205	Cyber Forensics	3
COMPSFI 215	Information Security Domain	3
COMPSFI 216	Info Security Program Management	3
COMPSFI 231	Internetworking Security	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
An Associate degree	12.87%
A Bachelor's degree	75.16%
A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Cybersecurity, Basic Certificate

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0297

The Cybersecurity Basic Certificate program provides foundational knowledge and skill set for beginning students pursuing career opportunities in cybersecurity. With a hands-on approach to learning in this program, students acquire essential to cybersecurity technical knowledge of current and emerging cyber threats, vulnerabilities, and technologies. Students learn to script and code, use and administer current operating systems, and acquire core knowledge in digital networking. Equipped with proper foundation, students learn how to identify security threats and incorporate best practices in detecting and responding to global threats in a forensically sound manner.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 103	Fundamentals of Programming	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
COMPSFI 101 or NET TEC 121	Networking Essentials Internetworking I	3
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in Cybersecurity. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CIS 116	Operating System I (CompTIA A+ Software)	3
COMPSFI 101 or NET TEC 121	Networking Essentials or Internetworking I	3
CIS 103	Fundamentals of Programming (using Python)	3
	Hours	**9**
Semester 2		
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials (CompTIA Security+)	3
COMPSFI 202	Cybercrime and Incident Response	3
	Hours	**9**
	Total Hours	**18**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard

digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
An Associate degree	12.87%
A Bachelor's degree	75.16%
A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

Dental Hygiene, Associate in Applied Science

College(s): MX

Program Code: 0222

The Dental Hygiene AAS degree program educates students to provide preventive oral health care services to patients. Major responsibilities include assessing a patient's health history, examining the teeth and oral structures, removing plaque biofilm, calculus and stain from the teeth, taking intraoral radiographs and educating patients in oral self-care practices. Graduates are prepared to pass national, regional and state board licensing exams required for dental hygiene licensure.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Dental Hygiene AAS program at Malcolm X College, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Dental-Hygiene.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3

MATH 118	General Education Math (or higher general education math course)	4
PSYCH 201	General Psychology	3
CHEM 121	Basic Chemistry I (or higher)	4
SOC 201	Intro To the Study Of Society (HD)	3
Required Program Core		
DENTHYG 112	Introduction to Dental Hygiene	1
DENTHYG 119	Introduction to Dental Radiography	1.5
DENTHYG 121	Dental Hygiene Theory I	2
DENTHYG 122	Dental Hygiene Theory II	2
DENTHYG 123	Pre-Clinical Dental Hygiene	2
DENTHYG 125	Diet and Nutrition in Oral Health	2
DENTHYG 126	Dental Radiology	1.5
DENTHYG 130	Dental Materials	3
DENTHYG 131	Oral Structures & Function	3
DENTHYG 132	General/Oral Pathology and Diagnosis	3
DENTHYG 133	Head And Neck Anatomy	2
DENTHYG 135	Medical Emergencies in the Dental Setting	1
DENTHYG 202	Critique of Dental Literature	1
DENTHYG 233	Expanded Functions	3
DENTHYG 235	Community Dental Health I	2
DENTHYG 241	Dental Pharmacology	2
DENTHYG 244	Periodontics for Dental Hygienist	3
DENTHYG 256	Community Dental Health II	1
DENTHYG 258	Ethics And Jurisprudence	2
DENTHYG 260	Senior Seminar	2
Required Work-Based Learning Courses		
DENTHYG 124	Clinical Dental Hygiene I	3
DENTHYG 200	Clinical Dental Hygiene II	3
DENTHYG 251	Clinical Dental Hygiene III	6
DENTHYG 252	Clinical Dental Hygiene IV	5
Total Hours		**74**

Pathway

This is an **example course sequence** for students interested in earning a degree in Dental Hygiene. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree in Dental Hygiene.

Please note: Semesters 1–3 are "pre-dental hygiene pathway". Semesters 4–9 occur after acceptance in the Dental Hygiene program. BIOLOGY 120 Terminology For Medical Careers *is not required*.

Prospective students must apply for admission into the Dental Hygiene program.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		**Hours**
BIOLOGY 121	Biology I [1]	5
	Hours	**5**
Semester 2		
BIOLOGY 226	Human Structure and Function I [1]	4
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**7**
Semester 3		
MCROBIO 233	General Microbiology [1]	4
BIOLOGY 227	Human Structure and Function II [1]	4
	Hours	**8**
Semester 4		
Summer		
DENTHYG 112	Introduction to Dental Hygiene	1
CHEM 121	Basic Chemistry I [2]	4
	Hours	**5**
Semester 5		
Fall		
DENTHYG 119	Introduction to Dental Radiography	1.5
DENTHYG 121	Dental Hygiene Theory I	2
DENTHYG 123	Pre-Clinical Dental Hygiene	2
DENTHYG 125	Diet and Nutrition in Oral Health	2
DENTHYG 131	Oral Structures & Function	3
DENTHYG 133	Head And Neck Anatomy	2
DENTHYG 135	Medical Emergencies in the Dental Setting	1
ENGLISH 101	Composition [2]	3
	Hours	**16.5**
Semester 6		
Spring		
DENTHYG 122	Dental Hygiene Theory II	2
DENTHYG 124	Clinical Dental Hygiene I	3
DENTHYG 126	Dental Radiology	1.5
DENTHYG 130	Dental Materials	3
DENTHYG 132	General/Oral Pathology and Diagnosis	3
SOC 201	Intro To the Study Of Society (HD) [2]	3
	Hours	**15.5**
Semester 7		
Summer		
DENTHYG 200	Clinical Dental Hygiene II	3
MATH 118	General Education Math [2]	4
	Hours	**7**
Semester 8		
Fall		
DENTHYG 233	Expanded Functions	3
DENTHYG 235	Community Dental Health I	2
DENTHYG 241	Dental Pharmacology	2
DENTHYG 244	Periodontics for Dental Hygienist	3
DENTHYG 251	Clinical Dental Hygiene III	6
	Hours	**16**
Semester 9		
Spring		
DENTHYG 202	Critique of Dental Literature	1
DENTHYG 252	Clinical Dental Hygiene IV	5
DENTHYG 256	Community Dental Health II	1
DENTHYG 258	Ethics And Jurisprudence	2
DENTHYG 260	Senior Seminar	2
PSYCH 201	General Psychology [2]	3
	Hours	**14**
	Total Hours	**94**

[1] Program Prerequisite
[2] General Education Requirement

Program Admission Requirements

The program is very competitive, and meeting the minimum admission requirements does not guarantee acceptance into the program. In order to be considered for admission, students must:

- Be at least 18 years of age
- Graduate from an accredited high school or earn a GED
- Meet general admissions requirements for Malcolm X College including successful completion of all prerequisite courses for the Dental Hygiene program
- Have a minimum cumulative GPA of 2.8 in all college-level work
- Submit to Office of Registrar Services all official college transcripts attended outside of City Colleges of Chicago
- Grade of "C" or better in BIOLOGY 121 Biology I, BIOLOGY 226 Human Structure and Function I, and BIOLOGY 227 Human Structure and Function II, SPEECH 101 Fundamentals of Speech Communication, and MCROBIO 233 General Microbiology
  - *All science prerequisite courses must be taken within five (5) years of being accepted to the program.*
- Students who meet the minimum admissions requirement will receive a link to the online dental hygiene application via e-mail starting late October.
- Strongly encouraged that applicants attend a dental hygiene open house
- Submit the dental hygiene admissions packet

For more information on admissions requirements and the application process, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Dental-Hygiene.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Dental Hygienists

Job Description

Administer oral hygiene care to patients. Assess patient oral hygiene problems or needs and maintain health records. Advise patients on oral health maintenance and disease prevention. May provide advanced care such as providing fluoride treatment or administering topical anesthesia.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$65,334
Median 50th Percentile	$101,719
Senior-Level 90th Percentile	$109,746

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$49
Senior-Level 90th Percentile	$53

Annual Job Openings

270 annual openings in Cook County

National Education Attainment

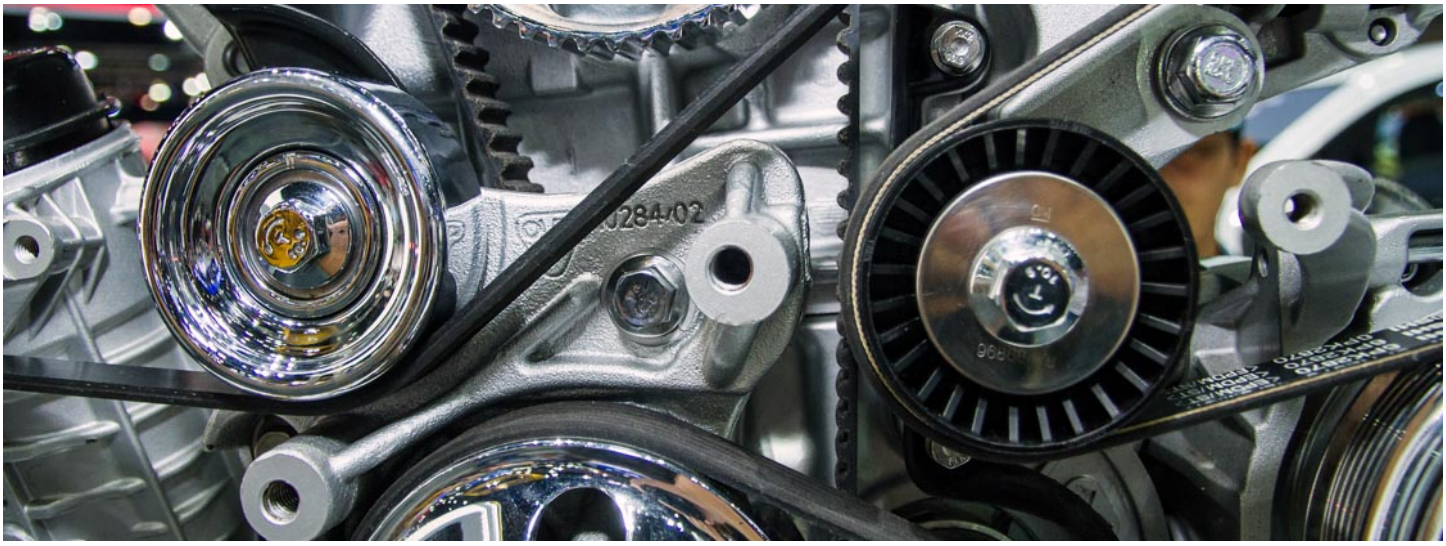
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	75.18%
A Bachelor's degree	12.08%
A Master's or Professional degree	12.74%
A Doctoral degree or more	0.00%

24.82% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Diesel Technology, Advanced Certificate



College(s): OH

Program Code: 0401

The Diesel Technology Advanced Certificate program provides students with the training needed for maintaining and repairing heavy-duty diesel powered equipment. Instructional training is heavily focused on diesel engines performance, hydraulics, electrical, air conditioning, and drive trains.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
PHY SCI 112	General Course II Physical Science	4
MATH 107	Math For Technicians I	4
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 113	Introduction to Diesel Engine Construction	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
330TRNS 116	Diesel Brakes	3
330TRNS 209	Diesel Electrical Systems II	3
330TRNS 211	Diesel Preventive Maintenance	3
330TRNS 213	Diesel Engine Construction II	3
330TRNS 214	Emission Controls	3
330TRNS 215	Diesel Engine Performance	3
330TRNS 216	Heavy Duty Drives I (Manual)	3
330TRNS 218	Heating and Air Conditioning	3
Total Hours		**50**

Pathway

This is an **example** course sequence for students interested in Diesel Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Diesel Technology.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 107	Math For Technicians I	4
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 113	Introduction to Diesel Engine Construction	3
	Hours	**10**
Semester 2		
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
	Hours	**9**
Semester 3		
330TRNS 116	Diesel Brakes	3
330TRNS 209	Diesel Electrical Systems II	3
ENGLISH 101	Composition	3
	Hours	**9**
Semester 4		
330TRNS 211	Diesel Preventive Maintenance	3
330TRNS 213	Diesel Engine Construction II	3
330TRNS 214	Emission Controls	3
PHY SCI 112	General Course II Physical Science	4
	Hours	**13**
Semester 5		
330TRNS 215	Diesel Engine Performance	3
330TRNS 216	Heavy Duty Drives I (Manual)	3

330TRNS 218	Heating and Air Conditioning	3
	Hours	**9**
	Total Hours	**50**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bus and Truck Mechanics and Diesel Engine Specialists

Job Description

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,941
Median 50th Percentile	$63,023
Senior-Level 90th Percentile	$96,701

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$30
Senior-Level 90th Percentile	$46

Annual Job Openings

335 annual openings in Cook County

National Education Attainment

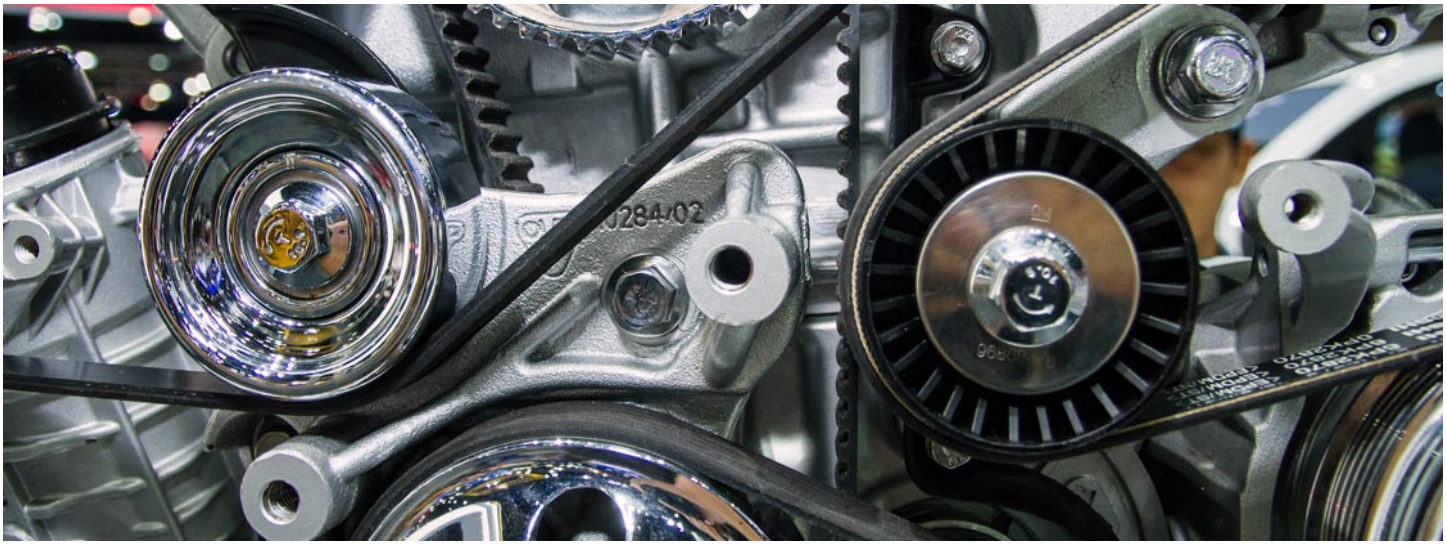
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	37.89%
A certificate	39.49%
Some college	21.94%
An Associate degree	0.67%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Diesel Technology, Associate in Applied Science



College(s): OH

Program Code: 0400

The Associate in Applied Science degree in Diesel Technology equips students with the skills necessary to repair and maintain diesel-powered highway, industrial, and marine vehicles and equipment. Students will gain more detailed instructions in how diesel maintenance techniques and principles are applied in diagnosing malfunctions and prescribing corrective action. The course work highlights diesel service management, critical thinking and problem solving, theory and skills of refrigeration, electronic and mechanical fuel injection, chassis maintenance, vehicle inspection, tune-up, engine overhaul, transmission repair, brake service, handling hazardous waste and preventative maintenance. Students will also be eligible to take the National Institute of Automotive Service Excellence (NAISE) examinations in heavy truck mechanics, Allison Transmission certification, and Hybrid certification.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
PHY SCI 102	General Course Physical Science	3
PHY SCI 112	General Course II Physical Science	4
Select one of the following:		3
AFRO AM 101	Introduction to African-American Studies (HD)	
HUM 143	Intro to Latin American/Latino Studies (HD)	
HUM 215	The Art and Philosophy of the African Continent (HD)	
GEOG 101	World Geography	3
or ECON 201	Principles Of Economics I	
Required Program Core		
MATH 107	Math For Technicians I	4
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 113	Introduction to Diesel Engine Construction	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
330TRNS 116	Diesel Brakes	3
330TRNS 209	Diesel Electrical Systems II	3
330TRNS 211	Diesel Preventive Maintenance	3
330TRNS 213	Diesel Engine Construction II	3
330TRNS 214	Emission Controls	3
330TRNS 215	Diesel Engine Performance	3
330TRNS 216	Heavy Duty Drives I (Manual)	3
330TRNS 217	Heavy Duty Drives II (Automatic)	3
330TRNS 218	Heating and Air Conditioning	3
330TRNS 219	Hydraulic Systems	4
330TRNS 220	Advanced Diagnostics	4
Total Hours		**70**

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example** course sequence for students interested in Diesel Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science Degree (AAS) in Diesel Technology. One course will satisfy the Human Diversity (HD) requirement.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 107	Math For Technicians I [1]	5
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 113	Introduction to Diesel Engine Construction	3
	Hours	**11**
Semester 2		
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
	Hours	**9**
Semester 3		
Social and Behavioral Sciences course [1,2]		3
PHY SCI 102	General Course Physical Science [1]	3
330TRNS 116	Diesel Brakes	3
330TRNS 209	Diesel Electrical Systems II	3
	Hours	**12**
Semester 4		
330TRNS 211	Diesel Preventive Maintenance	3
330TRNS 213	Diesel Engine Construction II	3
330TRNS 214	Emission Controls	3
	Hours	**9**
Semester 5		
330TRNS 215	Diesel Engine Performance	3
330TRNS 216	Heavy Duty Drives I (Manual)	3
330TRNS 218	Heating and Air Conditioning	3
	Hours	**9**
Semester 6		
ENGLISH 101	Composition [1]	3
330TRNS 217	Heavy Duty Drives II (Automatic)	3
330TRNS 219	Hydraulic Systems	4
330TRNS 220	Advanced Diagnostics	4
PHY SCI 112	General Course II Physical Science	4
Fine Arts & Humanities course [1,2]		3
	Hours	**21**
	Total Hours	**71**

[1] General Education course
[2] One course must satisfy the Human Diversity (HD) requirement

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bus and Truck Mechanics and Diesel Engine Specialists

Job Description

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,941
Median 50th Percentile	$63,023
Senior-Level 90th Percentile	$96,701

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$30
Senior-Level 90th Percentile	$46

Annual Job Openings

335 annual openings in Cook County

National Education Attainment

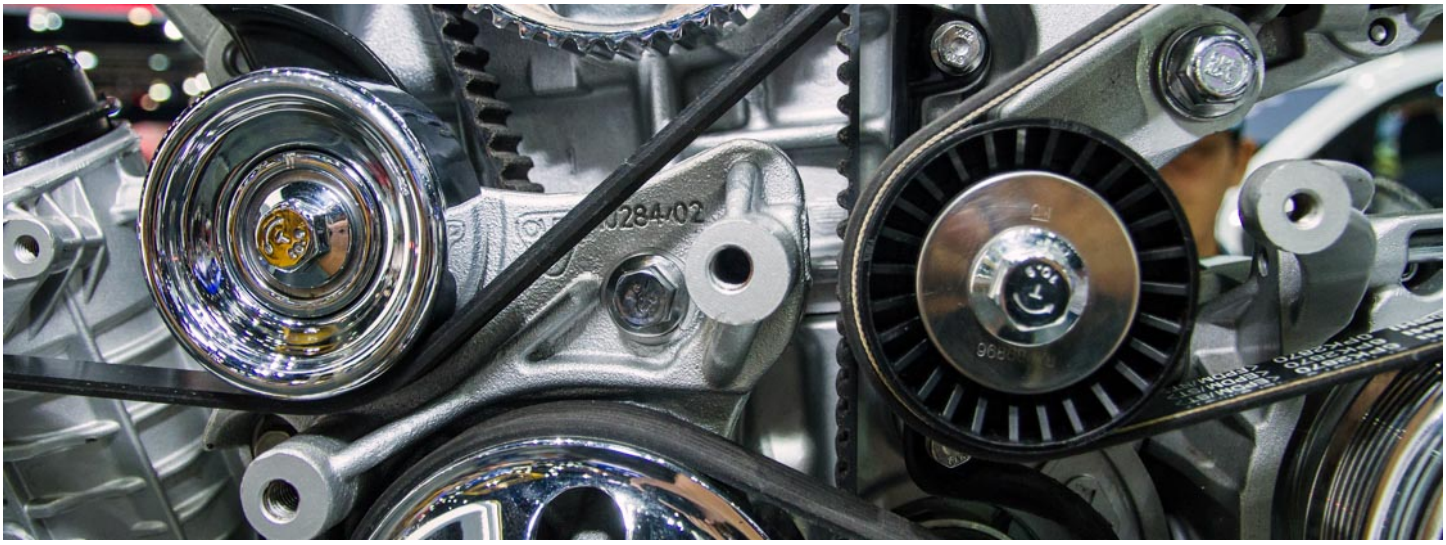
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	37.89%
A certificate	39.49%
Some college	21.94%
An Associate degree	0.67%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Diesel Technology, Basic Certificate



College(s): OH

Program Code: 0402

The Diesel Technology Basic Certificate Program introduces students to the basic fundamentals of diesel technology and provides them with the necessary entry-level skills and theory to enter either the medium/heavy duty or construction equipment service/repair fields. This certificate prepares students to become repair technicians. Graduates will be qualified for positions requiring diagnosis and repair of diesel engines, suspension and steering, brakes, and electrical and electronic systems.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
MATH 107	Math For Technicians I	4
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 113	Introduction to Diesel Engine Construction	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
Total Hours		**19**

Pathway

This is an **example** course sequence for students interested in Diesel Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Diesel Technology.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 107	Math For Technicians I	4
330TRNS 111	Introduction to Diesel Technology	3
330TRNS 113	Introduction to Diesel Engine Construction	3
	Hours	**10**
Semester 2		
330TRNS 112	Diesel Electrical Systems I	3
330TRNS 114	Diesel Engine Construction I	3
330TRNS 115	Suspension and Steering	3
	Hours	**9**
	Total Hours	**19**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Bus and Truck Mechanics and Diesel Engine Specialists

Job Description

Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,941
Median 50th Percentile	$63,023
Senior-Level 90th Percentile	$96,701

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$30
Senior-Level 90th Percentile	$46

Annual Job Openings

335 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	37.89%
A certificate	39.49%
Some college	21.94%
An Associate degree	0.67%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Digital Marketing and Social Media, Advanced Certificate

College(s): HW

Program Code: 0426

The purpose of the Digital Marketing and Social Media Advanced Certificate is to provide students with marketing management skills, so that they can obtain an entry-level position. Sample concepts to be cover will include: marketing data analytics, project management, digital media, social networking sites, recommender sites, reputation systems, user-generated concepts, social bookmarking and virtual worlds.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
CIS 120	Introduction to Computer Applications	3
CIS 181	Web Development I/Basic Web Technologies	3
BUSINES 111	Introduction To Business	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 231	Marketing	3
BUSINES 259	Introduction to Project Management	3
BUSINES 260	Digital Marketing and Social Media	3
BUSINES 284	Business Communications	3
DMD 168	Computer Art I	3
Program Electives		
BUSINES 214 or PHIL 107	The Legal & Social Environment of Business Ethics	3
Total Hours		**36**

Pathway

This is an **example course sequence** for students interested in pursuing Digital Marketing and Social Media. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition	3
CIS 120	Introduction to Computer Applications	3
BUSINES 111	Introduction To Business	3
BUSINES 214	The Legal & Social Environment of Business [1]	3
BUSINES 284	Business Communications	3
	Hours	**15**
Semester 2		
SPEECH 101	Fundamentals of Speech Communication	3
DMD 168	Computer Art I	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 231	Marketing	3
BUSINES 259	Introduction to Project Management	3
	Hours	**15**

Semester 3		
BUSINES 260	Digital Marketing and Social Media	3
CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**6**
	Total Hours	**36**

[1] Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Market Research Analysts and Marketing Specialists

Job Description

Research conditions in local, regional, national, or online markets. Gather information to determine potential sales of a product or service, or plan a marketing or advertising campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution. May employ search marketing tactics, analyze web metrics, and develop recommendations to increase search engine ranking and visibility to target markets.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,386
Median 50th Percentile	$78,791
Senior-Level 90th Percentile	$148,294

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$38
Senior-Level 90th Percentile	$71

Annual Job Openings

1896 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	60.87%
A Master's or Professional degree	39.13%
A Doctoral degree or more	0.00%

100.00% continue their education beyond an associate degree

Advertising and Promotions Managers

Job Description

Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or giveaways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,394
Median 50th Percentile	$120,637
Senior-Level 90th Percentile	$306,467

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$58
Senior-Level 90th Percentile	$147

Annual Job Openings

22 annual openings in Cook County

National Education Attainment

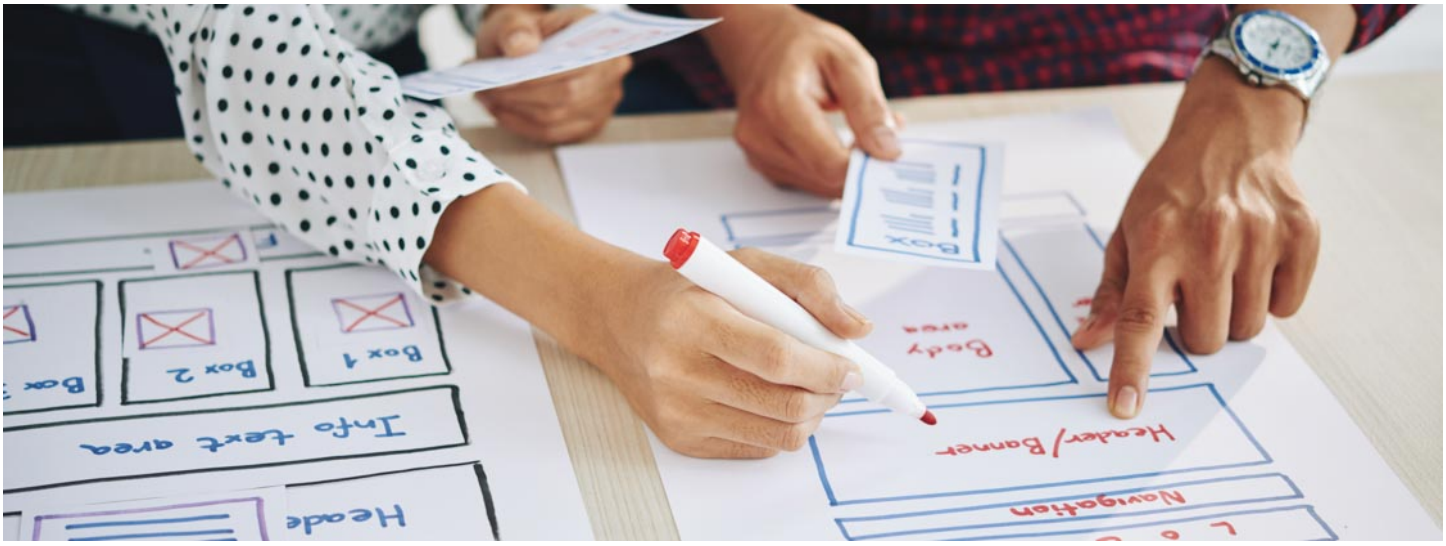
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	15.98%
A certificate	0.00%
Some college	7.67%
An Associate degree	8.04%
A Bachelor's degree	62.44%
A Master's or Professional degree	5.87%
A Doctoral degree or more	0.00%

68.31% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Digital Multimedia Design, Advanced Certificate



College(s): HW

Program Code: 0351

The Advanced Certificate in Digital Multimedia Design is designed to prepare students for entry-level positions in the field of interactive and multimedia design. Students will learn the necessary skills, both technically and aesthetically, to create digital multimedia presentations for CD's, DVD's, video, or web pages.

Program Requirements

Code	Title	Hours
Required Program Core		
ART 131	General Drawing	3
ART 176	Graphics Design I	3
DMD 130	Principles of Design and Development for Digital Media	3
DMD 131	Beg Multimedia Design & Dev	3
DMD 168	Computer Art I	3
DMD 231	Intermediate Multimedia Design & Development	3
DMD 233	Advanced Multimedia Design & Development	3
DMD 268	Advanced Computer Art	3
DMD 299	Portfolio & Professional Practice Seminar	3
Program Electives		
Select one of the following:		3
DMD 105	2D Animation	
DMD 121	3D Modeling	
DMD 179	Digital Video I	
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing Digital Multimedia Design. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Digital Multimedia Design.

Semester-by Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
DMD 130	Principles of Design and Development for Digital Media	3
DMD 168	Computer Art I	3
DMD 105	2D Animation [1]	3
	Hours	**9**
Semester 2		
DMD 131	Beg Multimedia Design & Dev	3
ART 176	Graphics Design I	3
ART 131 or ART 142	General Drawing or Figure Draw & Composition	3
	Hours	**9**
Semester 3		
DMD 231	Intermediate Multimedia Design & Development	3
DMD 268	Advanced Computer Art	3
	Hours	**6**
Semester 4		
DMD 233	Advanced Multimedia Design & Development	3
DMD 299	Portfolio & Professional Practice Seminar	3
	Hours	**6**
	Total Hours	**30**

[1] Program elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Effects Artists and Animators

Job Description

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,250
Median 50th Percentile	$43,302
Senior-Level 90th Percentile	$122,520

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$21
Senior-Level 90th Percentile	$59

Annual Job Openings

43 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.53%
A certificate	0.00%
Some college	39.68%
An Associate degree	1.70%
A Bachelor's degree	52.75%
A Master's or Professional degree	0.34%
A Doctoral degree or more	0.00%

53.09% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Digital Multimedia Design, Associate in Applied Science

College(s): HW

Program Code: 0350

The AAS in Digital Multimedia Design is designed to prepare students for entry-level positions in the field of interactive and multimedia design, and for possible transfer to a four-year institution. Requirements for Digital Multimedia Design will equip students with the skills to create digital multimedia presentations; output can be delivered on CD, DVD, video, or in the form of webpages over the Internet.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
MATH 118	General Education Math (or higher)	4
FIN ART 107	History of Architecture, Painting & Sculpture I	3
or FIN ART 108	Hist Of Arch Paint Sculp II	
HUM 105	The New World Of Mass Media	3
or PHIL 225	Philosophy Of Art	
Physical Sciences or Life Sciences course		3
Social and Behavioral Sciences course		3
Required Program Core		
ART 131	General Drawing	3
or ART 142	Figure Draw & Composition	
ART 144	Two Dimensional Design	3
ART 176	Graphics Design I	3
DMD 105	2D Animation	3
DMD 121	3D Modeling	3
DMD 130	Principles of Design and Development for Digital Media	3
DMD 131	Beg Multimedia Design & Dev	3
DMD 168	Computer Art I	3
DMD 179	Digital Video I	3
DMD 231	Intermediate Multimedia Design & Development	3
DMD 233	Advanced Multimedia Design & Development	3
DMD 268	Advanced Computer Art	3
DMD 279	Digital Video II	3
DMD 299	Portfolio & Professional Practice Seminar	3
Program Electives		
Select one of the following:		3
DMD 115	Digital Audio	
DMD 205	Advanced Animation	
DMD 221	3D Animation	
Total Hours		**67**

One course must fulfill the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in pursuing Digital Multimedia Design. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), an Advanced Certificate (AC) and an Associate in Applied Science (AAS) in Digital Multimedia Design.

Semester-by Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
FIN ART 107 or FIN ART 108	History of Architecture, Painting & Sculpture I [1] or Hist Of Arch Paint Sculp II	3
ART 144	Two Dimensional Design	3
DMD 130	Principles of Design and Development for Digital Media	3
DMD 168	Computer Art I	3
DMD 105	2D Animation	3
	Hours	**18**
Semester 2		
DMD 131	Beg Multimedia Design & Dev	3
ART 176	Graphics Design I	3
ART 131 or ART 142	General Drawing or Figure Draw & Composition	3
MATH 118	General Education Math (or higher Mathematics) [1]	4
PHIL 225 or HUM 105	Philosophy Of Art [1] or The New World Of Mass Media	3
	Hours	**16**
Semester 3		
DMD 231	Intermediate Multimedia Design & Development	3
DMD 121	3D Modeling	3
Social and Behavioral Sciences course (HD) [1]		3
Physical Sciences or Life Sciences course [1]		3
DMD 268	Advanced Computer Art	3
DMD 179	Digital Video I	3
	Hours	**18**
Semester 4		
DMD 233	Advanced Multimedia Design & Development	3
ENGLISH 102	Composition [1]	3
DMD 299	Portfolio & Professional Practice Seminar	3
DMD 279	Digital Video II	3
Select one of the following:		3
DMD 115	Digital Audio [2]	
DMD 205	Advanced Animation [2]	
DMD 221	3D Animation [2]	
	Hours	**15**
	Total Hours	**67**

[1] General Education Requirement
[2] Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Effects Artists and Animators

Job Description

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,250
Median 50th Percentile	$43,302
Senior-Level 90th Percentile	$122,520

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$21
Senior-Level 90th Percentile	$59

Annual Job Openings

43 annual openings in Cook County

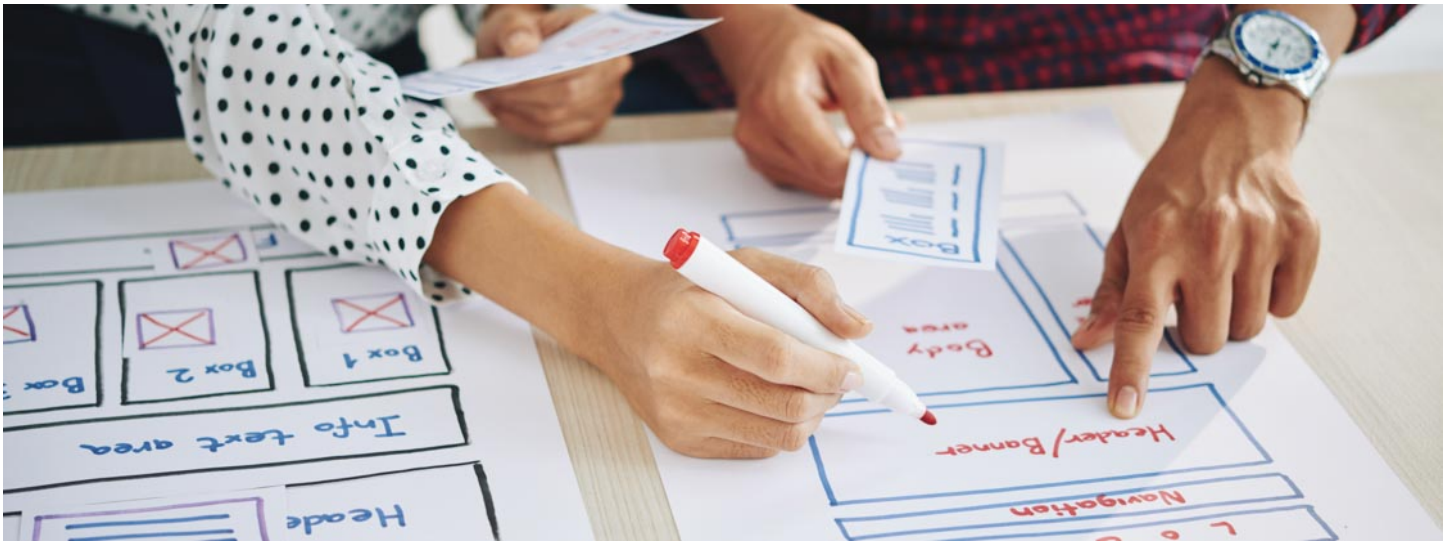
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.53%
A certificate	0.00%
Some college	39.68%
An Associate degree	1.70%
A Bachelor's degree	52.75%
A Master's or Professional degree	0.34%
A Doctoral degree or more	0.00%

53.09% continue their education beyond an associate degree

Digital Multimedia Design, Basic Certificate



College(s): HW

Program Code: 0354

The Basic Certificate in Digital Multimedia Design is designed to prepare students for entry-level positions in the field of interactive and multimedia design. Students will learn the necessary skills, both technically and aesthetically, to create digital multimedia presentations for CD's, DVD's, video, or web pages.

Program Requirements

Code	Title	Hours
Required Program Core		
ART 176	Graphics Design I	3
DMD 130	Principles of Design and Development for Digital Media	3
DMD 131	Beg Multimedia Design & Dev	3
DMD 168	Computer Art I	3
DMD 231	Intermediate Multimedia Design & Development	3
DMD 233	Advanced Multimedia Design & Development	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing Digital Multimedia Design. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Digital Multimedia Design.

Semester-by Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
DMD 130	Principles of Design and Development for Digital Media	3
DMD 168	Computer Art I	3
	Hours	**6**
Semester 2		
DMD 131	Beg Multimedia Design & Dev	3
ART 176	Graphics Design I	3
	Hours	**6**
Semester 3		
DMD 231	Intermediate Multimedia Design & Development	3
	Hours	**3**
Semester 4		
DMD 233	Advanced Multimedia Design & Development	3
	Hours	**3**
	Total Hours	**18**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Effects Artists and Animators

Job Description

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,250
Median 50th Percentile	$43,302
Senior-Level 90th Percentile	$122,520

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$21
Senior-Level 90th Percentile	$59

Annual Job Openings

43 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.53%
A certificate	0.00%
Some college	39.68%
An Associate degree	1.70%
A Bachelor's degree	52.75%
A Master's or Professional degree	0.34%
A Doctoral degree or more	0.00%

53.09% continue their education beyond an associate degree

Early Childhood Special Education Endorsement, Basic Certificate

College(s): TR

Program Code: 0429

The Basic Certificate-Early Childhood Special Education is for undergraduate degree holders with an Illinois Professional Educator License and an LBS1 endorsement or an Early Childhood Endorsement seeking a letter of approval for Early Childhood Special Education. The ECSE approval prepares students to teach in an early childhood special education setting.

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 262	Child, Family & Community Relations	3
EDUC 170	Observation, Documentation, & Assessment in ECSE	3
EDUC 171	Language and Literacy in ECSE	3
EDUC 172	Principles and Practices of ECSE	3
Total Hours		**12**

Admission Requirements:

- • Undergrad degree holders
  - Valid Illinois Professional Educator License (PEL) with an LBS1 endorsement or an Early Childhood Endorsement

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Education Teachers, Kindergarten

Job Description

Teach academic, social, and life skills to kindergarten students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,255
Median 50th Percentile	$83,099
Senior-Level 90th Percentile	$109,659

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$40
Senior-Level 90th Percentile	$53

Annual Job Openings

391 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.96%
An Associate degree	0.00%
A Bachelor's degree	66.02%
A Master's or Professional degree	27.83%
A Doctoral degree or more	5.19%

99.04% continue their education beyond an associate degree

Adapted Physical Education Specialists

Job Description

Provide individualized physical education instruction or services to children, youth, or adults with exceptional physical needs due to gross motor developmental delays or other impairments.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$50,900
Median 50th Percentile	$66,747
Senior-Level 90th Percentile	$107,592

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$32
Senior-Level 90th Percentile	$52

Annual Job Openings

66 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	71.43%
A Master's or Professional degree	28.57%
A Doctoral degree or more	0.00%

100.00% continue their education beyond an associate degree

Special Education Teachers, Preschool

Job Description

Teach academic, social, and life skills to preschool-aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,629
Median 50th Percentile	$61,120
Senior-Level 90th Percentile	$102,879

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$29
Senior-Level 90th Percentile	$49

Annual Job Openings

38 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	1.44%
An Associate degree	3.00%
A Bachelor's degree	63.43%
A Master's or Professional degree	32.13%
A Doctoral degree or more	0.00%

95.56% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Electrical Construction Technology, Advanced Certificate

College(s): DA

Program Code: 0721

The Advanced Certificate program in Electrical Construction Technology prepares students to become an apprentice under the tutelage of a union electrical contractor. Electricians assemble, install, maintain, and test electrical equipment and wiring systems in residential, commercial, and industrial settings.

Program Requirements

Code	Title	Hours
Required Program Core		
432IBEW 702	Electrical Circuitry	4.5
432IBEW 703	Conduit Bending I	3.5
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 706	Conduit Bending II	3.5
432IBEW 708	Motor Control Systems	3.5
432IBEW 709	Print Reading II	3
432IBEW 714	Technical Math I	3
432IBEW 715	Technical Math II	3
432IBEW 725	Low Voltage Systems	3.5
Total Hours		**35.5**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Electricians

Job Description

Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,595
Median 50th Percentile	$34,244
Senior-Level 90th Percentile	$65,968

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$16
Senior-Level 90th Percentile	$32

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	81.50%
A certificate	13.03%
Some college	2.84%
An Associate degree	1.33%
A Bachelor's degree	1.30%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.30% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Electrical Construction Technology, Associate in Applied Science

College(s): DA

Program Code: 0752

The Associate in Applied Science degree program in Electrical Construction Technology is a cooperative effort between Richard J. Daley College and the Electrical Joint Apprenticeship and Training Trust (EJATT) which is made up of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) Local Union 134. Through the joint effort of the college and EJATT, the program is dedicated to consistently providing state-of-the art education and training to apprentices, and through them to the residential and commercial building contractors in the Chicagoland area. This commitment to both the individual and industry requires not only providing electricians for today's market, but also looking toward tomorrow's market and future technologies.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Any History, Psychology, or related course		9
432IBEW 714	Technical Math I	3
Required Program Core		
432IBEW 702	Electrical Circuitry	4.5
432IBEW 703	Conduit Bending I	3.5
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 706	Conduit Bending II	3.5
432IBEW 708	Motor Control Systems	3.5
432IBEW 709	Print Reading II	3
432IBEW 710	Programmable Control	4.5
432IBEW 712	HVAC Systems	4.5
432IBEW 715	Technical Math II	3
432IBEW 724	Electrical Power Systems	4.5
432IBEW 725	Low Voltage Systems	3.5
432IBEW 727	Photovoltaic Systems	4.5
Total Hours		**65.5**

At least one course must meet the Human Diversity (HD) requirement.

Applicants must meet the following requirements:

- Graduate of an accredited high school or have acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts. Official transcripts will be accepted in place of the high school diploma if the graduation date is provided.
- At least 18 years old prior to application.

- Have taken two semesters of high school or college algebra and earned a minimum "C" grade in each semester,#completed#prior to application. An official transcript is required.
- Be physically able, as determined by a physician, to safely perform the tasks of a construction electrician. A drug test is required.
- Have evidence of a qualifying grade on an aptitude test prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Electricians

Job Description

Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,314
Median 50th Percentile	$94,783
Senior-Level 90th Percentile	$123,681

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$46
Senior-Level 90th Percentile	$59

Annual Job Openings

805 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	32.89%
A certificate	61.71%
Some college	2.31%
An Associate degree	1.79%
A Bachelor's degree	0.00%
A Master's or Professional degree	1.31%
A Doctoral degree or more	0.00%

1.31% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Electrical Construction Technology, Basic Certificate

College(s): DA

Program Code: 0703

The Basic Certificate program in Electrical Construction Technology prepares students to become an apprentice under the tutelage of a union electrical contractor. Electricians assemble, install, maintain, and test electrical equipment and wiring systems in residential, commercial, and industrial settings.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

Program Requirements

Code	Title	Hours
Required Program Core		
432IBEW 702	Electrical Circuitry	4.5
432IBEW 703	Conduit Bending I	3.5
432IBEW 704	Construction Technology	4.5
432IBEW 705	Print Reading I	3.5
432IBEW 714	Technical Math I	3
Total Hours		**19**

Applicants must meet the following requirements:

- Graduate of an accredited high school or have acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts. Official transcripts will be accepted in place of the high school diploma if the graduation date is provided.
- At least 18 years old prior to application.
- Have taken two semesters of high school or college algebra and earned a minimum "C" grade in each semester,#completed#prior to application. An official transcript is required.
- Be physically able, as determined by a physician, to safely perform the tasks of a construction electrician. A drug test is required.
- Have evidence of a qualifying grade on an aptitude test prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Electricians

Job Description

Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,595
Median 50th Percentile	$34,244
Senior-Level 90th Percentile	$65,968

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$16
Senior-Level 90th Percentile	$32

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	81.50%
A certificate	13.03%
Some college	2.84%
An Associate degree	1.33%
A Bachelor's degree	1.30%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

1.30% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Emergency Medical Technician (EMT), Basic Certificate

College(s): MX

Program Code: 0252

The Basic Certificate in Emergency Medical Technician (EMT)–Basic recognizes that the majority of pre-hospital emergency medical care will be provided by the EMT Basic. This includes all skills necessary for the individual to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. Specifically, the course is designed to provide training to recognize the nature or extent of a patient's condition to administer appropriate emergency medical care to stabilize the patient's condition, lift move, position, and otherwise handle the patient to minimize discomfort and prevent further injury and transport them safely to the proper medical facility.

Note: In order to sit for the licensure exam, students must:

- *Hold a high school diploma or high school equivalency certificate*
- *Be 18 years of age or older*

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
EMT 101	Emergency Medical Technician-Basic	8
Total Hours		**8**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Emergency Medical Technicians

Job Description

Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,752
Median 50th Percentile	$48,973
Senior-Level 90th Percentile	$151,502

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$24
Senior-Level 90th Percentile	$73

Annual Job Openings

162 annual openings in Cook County

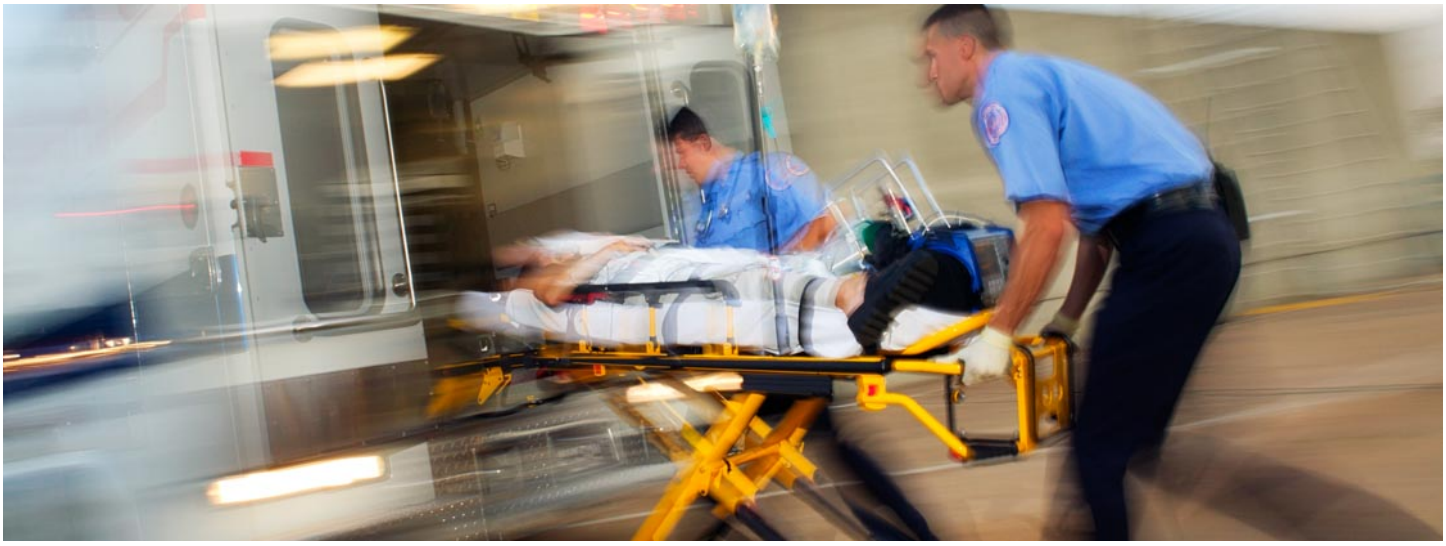
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.94%
A certificate	42.57%
Some college	29.85%
An Associate degree	11.75%
A Bachelor's degree	4.89%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.89% continue their education beyond an associate degree

EMT-II Paramedic, Advanced Certificate



College(s): MX

Program Code: 0265

The AC in EMT (II)–Paramedic is awarded to students who successfully complete the Paramedic Core Curriculum. Courses run for three consecutive semesters starting each fall. Applications are accepted the previous spring, successful completion of the core curriculum provide eligibility to take the national certification exam (National Registry of Emergency Medical Technicians). After passing the national certification exam, applicants may apply to various state agencies for a state paramedic license, including in Illinois to the Illinois Department of Public Health." The Malcom X Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org (https://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). For CAAHEP contact information, please visit www.caahep.org (https://www.caahep.org). The program is approved by the IL Dept. of Public Health, Division of Emergency Medical Services and Highway through JHS Cook County (Resource) Hospital.

***This selective admissions program requires students to submit a separate application or to take additional action before enrolling*.**

For more information on the EMT II - Paramedic AC at Malcolm X College, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Paramedic-Program.aspx)

Pathway

This is an **example course sequence** for students interested in EMT (II)–Paramedic. If this pathway is followed as outlined, student will earn an Advanced Certificate (AC) in EMT (II)–Paramedic. This does not represent a contract, nor does it guarantee course availability.

Malcolm X College offers the only paramedic program in the City of Chicago. It offers an Advanced Certificate (AC) as well as an Associate in Applied Science degree (AAS) in this professional specialty. Successful completion of the Paramedic Core Curriculum culminates in the Advanced Certificate, and additional general education courses enables the paramedic student to attain an AAS degree. Completion of the degree can broaden the student's marketability as well as provide a strong basis for continued professional learning.

This program is presented as a collaborative effort by Malcolm X College and the Chicago EMS Region XI, which includes the Chicago Fire Department, Advocate Illinois Masonic Medical Center, JHS Cook County Hospital, Northwestern Memorial Hospital, University of Chicago Hospitals and regional Associate Hospitals.

Semester-by-Semester Program Plan for Full-Time Student

Semester 1		**Hours**
EMT 212	Essentials of Paramedic Medicine I	9
EMT 222	Paramedic Medicine Practicum I	5.5
	Hours	**14.5**
Semester 2		
EMT 213	Essentials of Paramedic Medicine II	9
EMT 224	Paramedic Medicine Practicum II	7
	Hours	**16**
Semester 3		
EMT 227	Paramedic Medicine Field Internship	6
	Hours	**6**
	Total Hours	**36.5**

Choose your courses with your College Advisor.

Program Requirements

Code	Title	Hours
Required Program Core		
EMT 212	Essentials of Paramedic Medicine I	9
EMT 213	Essentials of Paramedic Medicine II	9
Required Work-Based Learning Courses		
EMT 222	Paramedic Medicine Practicum I	5.5
EMT 224	Paramedic Medicine Practicum II	7
EMT 227	Paramedic Medicine Field Internship	6
Total Hours		**36.5**

Program Admission Requirements

Courses run for three consecutive semesters starting each fall semester. Applications are accepted the previous spring. To be considered for admission the applicant must:

- Be at least 18 years of age
- Graduate from an accredited high school or earn a GED
- Be currently licensed by the State of Illinois as an EMT-B.
- Demonstrate an aptitude in college-level science course by earning a passing grade of C or better in 4 credit hour (with a lab) General Biology, Anatomy and Physiology, General Chemistry, articulated military course or successfully complete an equivalency exam. (CCC courses that apply include BIOLOGY 116 Introduction to Anatomy And Physiology, BIOLOGY 121 Biology I, BIOLOGY 226 Human Structure and Function I, and CHEM 201 General Chemistry I)
- Have a current CPR card.
- Achieve acceptable scores on admissions examination.
- Admissions cumulative GPA of 2.5 or higher.
- Submit official college transcripts
- Submit, by deadline, completed program application with transcripts, to the Paramedic Program Director at Malcolm X College.
- Ambulance experience as an EMT-B by start of program is strongly recommended.

Students enrolled in a current Spring semester EMT class from any other college who have not passed the EMT licensing exam by the application deadline, are not eligible to apply. Students enrolled in the Spring semester EMT class at Malcolm X College are eligible to apply with a current course grade of B or better.

Applicant Interviews and Student Selection

Interviews with the EMS Region XI Admissions Committee are granted to those applicants who have met or exceeded admission criteria. Selection of candidates for this program is highly competitive and selections are made based on interview. Evaluation of applicant ability is based on academic history, EMS work experience, references, and communication skills. Emphasis is placed on academic history as demonstrated by GPA, and motivation as demonstrated by commitment and adaptability to the EMS field.

For more information on admissions requirements and the application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Paramedic-Program.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Emergency Medical Technicians

Job Description

Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,752
Median 50th Percentile	$48,973
Senior-Level 90th Percentile	$151,502

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$24
Senior-Level 90th Percentile	$73

Annual Job Openings

162 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.94%
A certificate	42.57%
Some college	29.85%
An Associate degree	11.75%
A Bachelor's degree	4.89%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.89% continue their education beyond an associate degree

Paramedics

Job Description

Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use

equipment such as EKGs, or administer advanced life support to sick or injured individuals.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$52,887
Median 50th Percentile	$82,031
Senior-Level 90th Percentile	$166,539

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$39
Senior-Level 90th Percentile	$80

Annual Job Openings

67 annual openings in Cook County

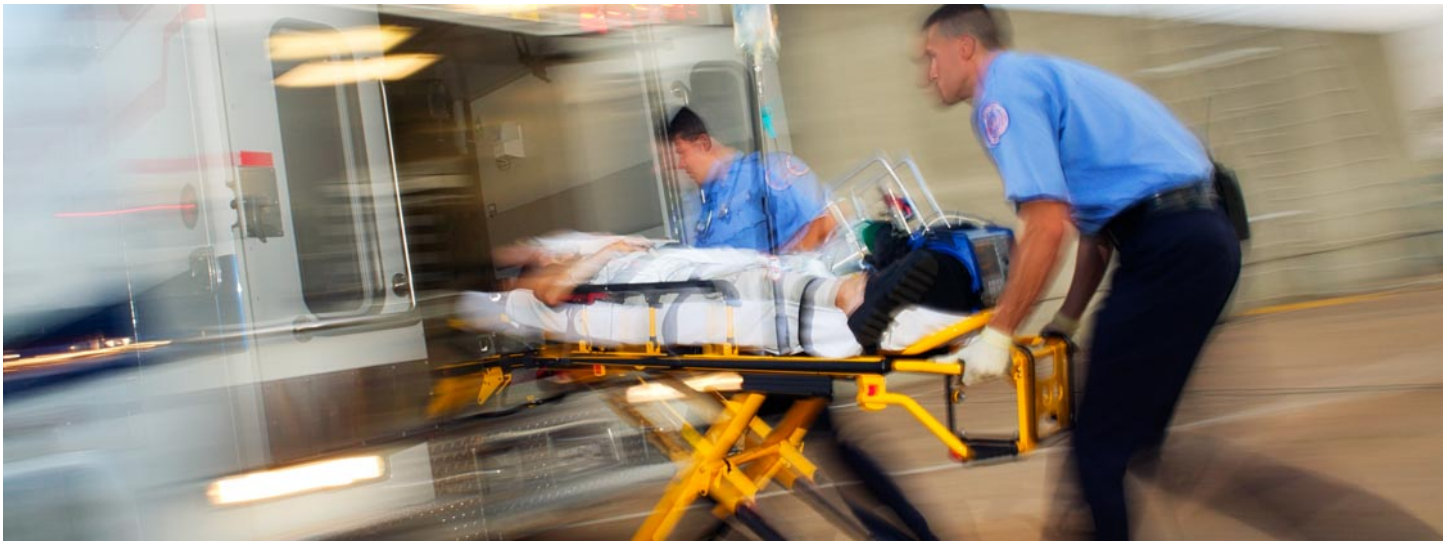
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.94%
A certificate	42.57%
Some college	29.85%
An Associate degree	11.75%
A Bachelor's degree	4.89%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.89% continue their education beyond an associate degree

EMT-II Paramedic, Associate in Applied Science



College(s): MX

Program Code: 0263

Malcolm X College offers the only paramedic program in the city of Chicago and is one of the few colleges in Illinois to offer an AAS degree in this professional specialty. Successful completion of the Paramedic Core Curriculum, in addition to complementary general education courses, enables the paramedic student to attain an AAS degree. Completion of the degree can broaden the student's marketability as well as provide a strong basis for continued professional learning.

The program is presented as a collaborative effort by Malcolm X College, Region 11 Chicago EMS, and the Chicago Fire Department. The Paramedic Program is approved and accredited by the Illinois Department of Public Health, Division of Emergency Medical Services and Highway.

The Malcom X College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org (https://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). For CAAHEP contact information, please visit www.caahep.org (https://www.caahep.org). The program is approved by the Illinois Department of Public Health, Division of Emergency Medical Services and Highway through JHS Cook County (Resource) Hospital.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the EMT II - Paramedic AAS at Malcolm X College, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Paramedic-Program.aspx).

Pathway

This is an **example course sequence** for students interested in EMT (II)–Paramedic. If this pathway is followed as outlined, student will earn an Associate in Applied Science degree in EMT (II)–Paramedic. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Student

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
EMT 212	Essentials of Paramedic Medicine I	9
EMT 222	Paramedic Medicine Practicum I	5.5
	Hours	**14.5**
Semester 2		
EMT 213	Essentials of Paramedic Medicine II	9
EMT 224	Paramedic Medicine Practicum II	7
	Hours	**16**
Semester 3		
EMT 227	Paramedic Medicine Field Internship	6
	Hours	**6**
Semester 4		
ENGLISH 101	Composition (or higher general education English) [1]	3
BIOLOGY 120	Terminology For Medical Careers [1]	3
Fine Arts & Humanities or Social and Behavioral Sciences course [1]		3
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**12**
Semester 5		
SOC 201	Intro To the Study Of Society [1]	3
PSYCH 201	General Psychology [1]	3
Physical Sciences or Life Sciences course [1]		3

Fine Arts & Humanities or Social and Behavioral Sciences course [1]		3
	Hours	**12**
	Total Hours	**60.5**

[1] General Education Requirement

Choose your courses with your College Advisor.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition (or higher general education English) [1]	3
BIOLOGY 120	Terminology For Medical Careers	3
SPEECH 101	Fundamentals of Speech Communication	3
SOC 201	Intro To the Study Of Society (HD)	3
PSYCH 201	General Psychology	3
Physical Sciences or Life Sciences		3
Fine Arts & Humanities or Social and Behavioral Sciences		6
Required Program Core		
EMT 212	Essentials of Paramedic Medicine I	9
EMT 213	Essentials of Paramedic Medicine II	9
Required Work-Based Learning Courses		
EMT 222	Paramedic Medicine Practicum I	5.5
EMT 224	Paramedic Medicine Practicum II	7
EMT 227	Paramedic Medicine Field Internship	6
Total Hours		**60.5**

[1] "or higher" effective Spring 2024

Program Admission Requirements

Courses run for three consecutive semesters starting each fall semester. Applications are accepted the previous spring. To be considered for admission the applicant must:

- Be at least 18 years of age
- Graduate from an accredited high school or earn a GED
- Be currently licensed by the State of Illinois as an EMT-B.
- Demonstrate an aptitude in college-level science course by earning a passing grade of C or better in 4 credit hour (with a lab) General Biology, Anatomy and Physiology, General Chemistry, articulated military course or successfully complete an equivalency exam. (CCC courses that apply include BIOLOGY 116 Introduction to Anatomy And Physiology, BIOLOGY 121 Biology I, BIOLOGY 226 Human Structure and Function I, and CHEM 201 General Chemistry I)
- Have a current CPR card.
- Achieve acceptable scores on admissions examination.
- Admissions cumulative GPA of 2.5 or higher.
- Submit official college transcripts
- Submit, by deadline, completed program application with transcripts, to the Paramedic Program Director at Malcolm X College.
- Ambulance experience as an EMT-B by start of program is strongly recommended.

Students enrolled in a current Spring semester EMT class from any other college who have not passed the EMT licensing exam by the application deadline, are not eligible to apply. Students enrolled in the Spring semester EMT class at Malcolm X College are eligible to apply with a current course grade of B or better.

Applicant Interviews and Student Selection

Interviews with the EMS Region XI Admissions Committee are granted to those applicants who have met or exceeded admission criteria. Selection of candidates for this program is highly competitive and selections are made based on interview. Evaluation of applicant ability is based on academic history, EMS work experience, references, and communication skills. Emphasis is placed on academic history as demonstrated by GPA, and motivation as demonstrated by commitment and adaptability to the EMS field.

For more information on admissions requirements and the application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Paramedic-Program.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Emergency Medical Technicians

Job Description

Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,752
Median 50th Percentile	$48,973
Senior-Level 90th Percentile	$151,502

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$24
Senior-Level 90th Percentile	$73

Annual Job Openings

162 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.94%
A certificate	42.57%
Some college	29.85%
An Associate degree	11.75%
A Bachelor's degree	4.89%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.89% continue their education beyond an associate degree

Paramedics

Job Description

Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$52,887
Median 50th Percentile	$82,031
Senior-Level 90th Percentile	$166,539

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$39
Senior-Level 90th Percentile	$80

Annual Job Openings

67 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.94%
A certificate	42.57%
Some college	29.85%
An Associate degree	11.75%
A Bachelor's degree	4.89%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.89% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

English as a Second Language, Basic Certificate

College(s): TR

Program Code: 0427

The purpose of the Education Department English as a Second Language (ESL) program is to prepare teachers, administrators, and school service professionals who hold an Illinois Professional Educators License to meet the state endorsement requirements for the ESL Endorsement. The ESL certificate will prepare teachers to teach in multilingual classrooms with students for whom English is not their first language. The coursework in this certificate is specifically aligned to meet the linguistics, development, education, methods, and cultural content requirements of the state endorsements including electives and an ESL practicum experience. The Education Department believes that these endorsements are of particular importance as the number of ESL students in Illinois is projected to continue to rise, and there is a declared ESL teacher shortage.

Program Requirements

Code	Title	Hours
Required Program Core		
EDUC 220	Theoretical Foundations of 2nd Language Acquisition and Learning	3
EDUC 221	Methods and Materials for Teaching ESL in PK-12	3
EDUC 223	Assessment of the Second Language Learner	3
EDUC 224	Cross Cultural Studies for Teaching Limited English Proficient Students	3
LING 102	Introduction To Linguistics	3
Required Work-Based Learning Courses		
EDUC 225	Bilingual and ESL Practicum	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing English as a Second Language. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
LING 102	Introduction To Linguistics	3
EDUC 220	Theoretical Foundations of 2nd Language Acquisition and Learning	3
EDUC 221	Methods and Materials for Teaching ESL in PK-12	3
EDUC 223	Assessment of the Second Language Learner	3
EDUC 224	Cross Cultural Studies for Teaching Limited English Proficient Students	3
	Hours	**15**
Semester 2		
EDUC 225	Bilingual and ESL Practicum	3
	Hours	**3**
	Total Hours	**18**

Choose your courses with your College Advisor.

Environmental Technology, Associate in Applied Science

College(s): WR

Program Code: 0160

The Associate in Applied Science degree program for Environmental Technology prepares students with the skills and knowledge needed to participate in environmental careers including environmental compliance in public and private sector organizations, pollution prevention, environmental remediation, workplace health and safety, and emergency response preparedness. You will learn to develop procedures for proper hazardous materials handling techniques and design training programs used to implement existing and future regulatory requirements to ensure compliance. Upon graduation, you will be prepared to work in the health and safety field in such positions as compliance officer, environmental safety specialist, laboratory technician, hazardous materials emergency response technician, and environmental coordinator.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
CHEM 121	Basic Chemistry I	4
CIS 120	Introduction to Computer Applications	3
Fine Arts & Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
Required Program Core		
BIOLOGY 115	Human Biology	4
BIOLOGY 119	Environmental Biology	4
ENGLISH 102	Composition	3
or ENGLISH 107	Report Writing	
ENVR TC 121	Intro To Hazardous Materials Management	3
ENVR TC 131	Environmental Health & Safety	3
ENVR TC 141	Site Investigation & Sampling	3
ENVR TC 151	Intro to Environmental Laws & Policies	3
ENVR TC 175	Hazardous Material Handling & Transportation	3
ENVR TC 211	Recycling & Waste Minimizing	3
ENVR TC 241	Environmental Sampling	4
ENVR TC 243	Environmental Analysis	4
MATH 118	General Education Math (or higher)	4
Program Electives		
Students should meet with a College Advisor for selection of elective courses.		8
Total Hours		**68**

[1] One of the courses must fulfill the Human Diversity requirement.

Pathway

This is an **example course sequence** for students interested in environmental technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Associate in Applied Science (AAS) degree in Environmental Technology. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
CHEM 121	Basic Chemistry I [1]	4
MATH 118	General Education Math (or higher)	4

CIS 120	Introduction to Computer Applications [1]	3
ENVR TC 121	Intro To Hazardous Materials Management	3
	Hours	**17**
Semester 2		
SPEECH 101	Fundamentals of Speech Communication	3
BIOLOGY 115	Human Biology	4
ENVR TC 131	Environmental Health & Safety	3
ENVR TC 141	Site Investigation & Sampling	3
100-Level Program Elective (p. 683) [2]		4
	Hours	**17**
Semester 3		
ENGLISH 102 or ENGLISH 107	Composition [1] or Report Writing	3
BIOLOGY 119	Environmental Biology	4
ENVR TC 151	Intro to Environmental Laws & Policies	3
ENVR TC 211	Recycling & Waste Minimizing	3
200-Level Program Elective (p. 683) [2]		4
	Hours	**17**
Semester 4		
Social and Behavioral Sciences course [1]		3
Fine Arts & Humanities course (HD) [1]		3
ENVR TC 175	Hazardous Material Handling & Transportation	3
ENVR TC 241	Environmental Sampling	4
ENVR TC 243	Environmental Analysis	4
	Hours	**17**
	Total Hours	**68**

[1] General Education Requirement
[2] Students should meet with a College Advisor for selection of elective courses.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Environmental Engineering Technologists and Technicians

Job Description

Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientists. May assist in the development of environmental remediation devices.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,597
Median 50th Percentile	$53,880
Senior-Level 90th Percentile	$89,410

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$26
Senior-Level 90th Percentile	$43

Annual Job Openings

10 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.79%
A certificate	8.19%
Some college	6.64%
An Associate degree	1.46%
A Bachelor's degree	72.05%
A Master's or Professional degree	0.88%
A Doctoral degree or more	0.00%

72.93% continue their education beyond an associate degree

Environmental Technology, Basic Certificate

College(s): WR

Program Code: 0161

Environmental Technology, Basic Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
ENVR TC 121	Intro To Hazardous Materials Management	3
ENVR TC 131	Environmental Health & Safety	3
Program Electives		
100-level Environmental Technology electives (p. 683)		6
200-level Environmental Technology electives (p. 683)		6
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in environmental technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Environmental Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENVR TC 121	Intro To Hazardous Materials Management	3
	Hours	**3**
Semester 2		
ENVR TC 131	Environmental Health & Safety	3
100-Level Program Elective (p. 683) [1]		3-4
100-Level Program Elective (p. 683) [1]		3-4
	Hours	**9-11**
Semester 3		
200-Level Program Elective (p. 683) [1]		3-4
200-Level Program Elective (p. 683) [1]		3-4
	Hours	**6-8**
	Total Hours	**18-22**

[1] Program Elective (p. 683)

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Environmental Engineering Technologists and Technicians

Job Description

Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientists. May assist in the development of environmental remediation devices.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,597
Median 50th Percentile	$53,880
Senior-Level 90th Percentile	$89,410

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$26
Senior-Level 90th Percentile	$43

Annual Job Openings

10 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.79%
A certificate	8.19%
Some college	6.64%
An Associate degree	1.46%
A Bachelor's degree	72.05%
A Master's or Professional degree	0.88%
A Doctoral degree or more	0.00%

72.93% continue their education beyond an associate degree

Fire Officer Training, Basic Certificate

College(s): MX

Program Code: 0407

The program is intended to provide currently employed fire fighters with the knowledge, skills, and abilities needed to safely and effectively assume the role of a company fire officer. In addition to earning a Fire Officer Training Basic Certificate from our Fire Science Program, successful completion of these courses will satisfy the Office of the Illinois State Fire Marshal's (OSFM) Company Fire Officer Phase 1 and Phase 2 education requirement, allowing students to be added to an OSFM course completion roster. Students added to the OSFM course completion roster are eligible to challenge the State Written Examination and complete the Company Fire Officer Phase 3 task book in accordance with JCAR Section 141.309.

Program Requirements

Code	Title	Hours
Required Program Core		
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 200	Management and Leadership I	3
FIREMGT 204	Management and Leadership II	3
Total Hours		**9**

Pathway

This is an example course sequence for students interested in pursuing Company Fire Officer. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Company Fire Officer.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

First Year		
Semester 1		**Hours**
FIREMGT 200	Management and Leadership I	3
	Hours	**3**
Semester 2		
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 204	Management and Leadership II	3
	Hours	**6**
	Total Hours	**9**

Choose your courses with your College Advisor.

Special Admission Requirements

In order to be admitted to the program, students must have a "Basic Operations Fire Fighter" or "Fire Fighter II" certificate from the Office of the State Fire Marshall (OSFM) (or equivalent).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Firefighters

Job Description

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire

prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,724
Median 50th Percentile	$93,475
Senior-Level 90th Percentile	$134,040

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$45
Senior-Level 90th Percentile	$64

Annual Job Openings

475 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.25%
A certificate	24.60%
Some college	19.50%
An Associate degree	7.15%
A Bachelor's degree	0.43%
A Master's or Professional degree	2.96%
A Doctoral degree or more	0.10%

3.49% continue their education beyond an associate degree

First-Line Supervisors of Firefighting and Prevention Workers

Job Description

Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$91,901
Median 50th Percentile	$140,875
Senior-Level 90th Percentile	$191,367

Hourly Wages

Entry-Level 10th Percentile	$44
Median 50th Percentile	$68
Senior-Level 90th Percentile	$92

Annual Job Openings

59 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	32.30%
A certificate	18.72%
Some college	11.76%
An Associate degree	23.84%
A Bachelor's degree	13.24%
A Master's or Professional degree	0.02%
A Doctoral degree or more	0.12%

13.38% continue their education beyond an associate degree

Fire Inspectors and Investigators

Job Description

Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,065
Median 50th Percentile	$74,023
Senior-Level 90th Percentile	$128,709

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$36
Senior-Level 90th Percentile	$62

Annual Job Openings

11 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	29.44%
A certificate	27.49%
Some college	26.01%
An Associate degree	12.82%
A Bachelor's degree	2.19%
A Master's or Professional degree	2.04%
A Doctoral degree or more	0.00%

4.23% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Fire Science Management, Associate in Applied Science

College(s): MX

Program Code: 0413

The Fire Science Management degree is designed to concentrate on management and officer training with a target population of those who are already employed in a fire service and particularly addressing the specific higher education needs of the Chicago Fire Department (CFD).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher Gen Ed math course)	4
PSYCH 201	General Psychology	3
BIOLOGY 116	Introduction to Anatomy And Physiology	4
or BIOLOGY 121	Biology I	
or BIOLOGY 226	Human Structure and Function I	
or CHEM 121	Basic Chemistry I	
or CHEM 201	General Chemistry I	
Select a General Education course that is a Human Diversity course. [1]		3
Required Program Core		
EMT 101	Emergency Medical Technician-Basic	8
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 200	Management and Leadership I	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 204	Management and Leadership II	3
FIREMGT 210	Principles of Fire Prevention	3
Program Electives		
Select a minimum of nine credit hours of the following:		9
FIREMGT 104	Occupational Safety & Health for Emergency Services	
FIREMGT 106	Fire Apparatus and Equipment Operator	
FIREMGT 111	Basic Incident Command	
FIREMGT 198	Strategies and Tactics II	
FIREMGT 201	Fire Service Hydraulics	
FIREMGT 205	Chemistry of Hazardous Materials	
FIREMGT 206	Management and Operations III	
FIREMGT 211	Management Operations IV	
FIREMGT 220	Fire Instructor I	
FIREMGT 212	Fire Investigation I	
FIREMGT 213	Fire Investigation II	
FIREMGT 221	Fire Instructor II	
Total Hours		**61**

[1] Human Diversity Courses < City Colleges of Chicago (ccc.edu) (https://catalog.ccc.edu/hd/)

Pathway

This is an **example course sequence** for students interested in earning a degree in Fire Science Management. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) degree in Fire Science Management. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Check the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Fire-Science.aspx) for details about session dates and times.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
Semester One		
ENGLISH 101	Composition [1]	3
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 200	Management and Leadership I	3
	Hours	**12**
Semester 2		
Semester Two		
MATH 118	General Education Math [1, 4]	4
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 204	Management and Leadership II	3
	Hours	**10**
Semester 3		
Semester Three		
BIOLOGY 116 or BIOLOGY 121 or BIOLOGY 226 or CHEM 121 or CHEM 201	Introduction to Anatomy And Physiology [1] or Biology I or Human Structure and Function I or Basic Chemistry I or General Chemistry I	4
PSYCH 201	General Psychology [1]	3
	Hours	**7**
Semester 4		
Semester Four		
Any General Education, Human Diversity Course [1]		3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 210	Principles of Fire Prevention	3
	Hours	**12**
Semester 5		
Semester Five		
FIRE MGT 106	[2]	3
FIREMGT 201	Fire Service Hydraulics [2]	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 212	Fire Investigation I [2]	3
	Hours	**12**
Semester 6		
Semester Six		
EMT 101	Emergency Medical Technician-Basic	8
	Hours	**8**
	Total Hours	**61**

1 General Education Requirement
2 Program Elective (p. 281)
3 Human Diversity Courses < City Colleges of Chicago (ccc.edu) (https://catalog.ccc.edu/hd/)
4 or higher Gen Ed math course

Program ElectiveS

Associate in Applied Science Electives

Code	Title	Hours
FIREMGT 104	Occupational Safety & Health for Emergency Services	3
FIRE MGT 106		
FIRE MGT 111		
FIREMGT 198	Strategies and Tactics II	3
FIREMGT 205	Chemistry of Hazardous Materials	3
FIREMGT 206	Management and Operations III	3
FIREMGT 211	Management Operations IV	3
FIREMGT 212	Fire Investigation I	3
FIREMGT 213	Fire Investigation II	3
FIREMGT 220	Fire Instructor I	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Firefighting and Prevention Workers

Job Description

Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$91,901
Median 50th Percentile	$140,875
Senior-Level 90th Percentile	$191,367

Hourly Wages

Entry-Level 10th Percentile	$44
Median 50th Percentile	$68
Senior-Level 90th Percentile	$92

Annual Job Openings

59 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	32.30%
A certificate	18.72%
Some college	11.76%
An Associate degree	23.84%
A Bachelor's degree	13.24%
A Master's or Professional degree	0.02%
A Doctoral degree or more	0.12%

13.38% continue their education beyond an associate degree

Firefighters

Job Description

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Entry-Level 10th Percentile	$41,724
Median 50th Percentile	$93,475
Senior-Level 90th Percentile	$134,040

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$45
Senior-Level 90th Percentile	$64

Annual Job Openings

475 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.25%
A certificate	24.60%
Some college	19.50%
An Associate degree	7.15%
A Bachelor's degree	0.43%
A Master's or Professional degree	2.96%
A Doctoral degree or more	0.10%

3.49% continue their education beyond an associate degree

Fire Inspectors and Investigators

Job Description

Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,065
Median 50th Percentile	$74,023
Senior-Level 90th Percentile	$128,709

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$36
Senior-Level 90th Percentile	$62

Annual Job Openings

11 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	29.44%
A certificate	27.49%
Some college	26.01%
An Associate degree	12.82%
A Bachelor's degree	2.19%
A Master's or Professional degree	2.04%
A Doctoral degree or more	0.00%

4.23% continue their education beyond an associate degree

Forest Fire Inspectors and Prevention Specialists

Job Description

Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,231
Median 50th Percentile	$57,890
Senior-Level 90th Percentile	$109,809

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$28
Senior-Level 90th Percentile	$53

Annual Job Openings

3 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.63%
A certificate	8.92%
Some college	17.52%
An Associate degree	17.90%
A Bachelor's degree	24.03%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

24.03% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Fire Service Operations, Associate in Applied Science

College(s): MX

Program Code: 0414

The Fire Service Operations degree focuses on fire suppression and prevention and general emergency response operations with a target population of the college student interested in a career in emergency and fire service but not yet employed by a department.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
or SPEECH 101	Fundamentals of Speech Communication	
MATH 118	General Education Math (or higher gen ed math course)	4
PSYCH 201	General Psychology (or higher General Education Psychology)	3
SOC 201	Intro To the Study Of Society (or higher General Education Sociology)	3
Select a Human Diversity Course that is a Gen Ed. [1]		3
Select one of the following science courses:		4
BIOLOGY 116	Introduction to Anatomy And Physiology	
BIOLOGY 121	Biology I	
BIOLOGY 226	Human Structure and Function I	
CHEM 121	Basic Chemistry I	
CHEM 201	General Chemistry I	
Required Program Core		
EMT 101	Emergency Medical Technician-Basic	8
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 210	Principles of Fire Prevention	3
Program Electives		
Select a minimum of 9 credits of the following:		9
FIREMGT 104	Occupational Safety & Health for Emergency Services	
FIREMGT 106	Fire Apparatus and Equipment Operator	
FIREMGT 111	Basic Incident Command	
FIREMGT 198	Strategies and Tactics II	
FIREMGT 201	Fire Service Hydraulics	
FIREMGT 205	Chemistry of Hazardous Materials	
FIREMGT 207	HAZWOPER	
FIREMGT 212	Fire Investigation I	
FIREMGT 213	Fire Investigation II	
FIREMGT 220	Fire Instructor I	
FIREMGT 221	Fire Instructor II	
SPANISH 195	Spanish for Firefighters and EMTs	
Total Hours		**61**

[1] Human Diversity Courses < City Colleges of Chicago (ccc.edu) (https://catalog.ccc.edu/hd/)

Pathway

This is an **example course sequence** for students interested in earning a degree in Fire Service Operations. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) degree in Fire Service

Operations. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Check the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Fire-Science.aspx) for details about session dates and times.

Semester-by-Semester Program Plan for Full-Time Students (Fall 2023 or earlier)

All plans can be modified to fit the needs of part-time students by adding more semesters.

Course	Title	Hours
Semester 1		
ENGLISH 101	Composition [1]	3
ENGLISH 102 or SPEECH 101	Composition [1] or Fundamentals of Speech Communication	3
Select one of the following: [1]		3
HUM 212	Non-Western Humanities	
LIT 128	Latin American Literature	3
LIT 131	Survey Of Afro-American Poetry	
LIT 150	Women's Literature	3
FIREMGT 101	Principles of Emergency Services	3
BIOLOGY 114	General Education Biology [1]	4
	Hours	**22**
Semester 2		
EMT 101	Emergency Medical Technician-Basic	8
MATH 118	General Education Math [1]	4
FIREMGT 103	Fire Behavior and Combustion	3
	Hours	**15**
Semester 3		
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 212	Fire Investigation I [2]	3
PSYCH 201	General Psychology [1]	3
	Hours	**15**
Semester 4		
FIREMGT 104	Occupational Safety & Health for Emergency Services [2]	3
FIREMGT 198	Strategies and Tactics II [2]	3
FIREMGT 210	Principles of Fire Prevention	3
FIREMGT 220	Fire Instructor I	3
SOC 201	Intro To the Study Of Society [1]	3
	Hours	**15**
	Total Hours	**67**

1 General Education Requirement
2 Program Elective (p. 285)

Program electives

Code	Title	Hours
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 104	Occupational Safety & Health for Emergency Services	3
FIREMGT 198	Strategies and Tactics II	3
FIREMGT 205	Chemistry of Hazardous Materials	3
FIREMGT 212	Fire Investigation I	3
FIREMGT 213	Fire Investigation II	3
FIREMGT 220	Fire Instructor I	3
FIREMGT 221	Fire Instructor II	3

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Full-Time Students (Spring 2024 or later)

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 103	Fire Behavior and Combustion	3
	Hours	**12**
Semester 2		
ENGLISH 102 or SPEECH 101	Composition [1] or Fundamentals of Speech Communication	3
FIREMGT 106	Fire Apparatus and Equipment Operator [2]	3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
	Hours	**12**
Semester 3		
FIREMGT 202	Building Construction for Fire Science	3
PSYCH 201	General Psychology (or higher General Education Psychology course) [1]	3
Choose a General Education course that is HD. [1,3]		3
Choose one of the following classes: [1]		4
BIOLOGY 116	Introduction to Anatomy And Physiology	
BIOLOGY 121	Biology I	
BIOLOGY 226	Human Structure and Function I	
CHEM 121	Basic Chemistry I	
CHEM 201	General Chemistry I	
	Hours	**13**
Semester 4		
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 207	HAZWOPER [2]	3
FIREMGT 210	Principles of Fire Prevention	3
SOC 201	Intro To the Study Of Society (or higher General Education Sociology course) [1]	3
	Hours	**12**
Semester 5		
EMT 101	Emergency Medical Technician-Basic	8
MATH 118	General Education Math (or higher General Education Math course) [1]	4
	Hours	**12**
	Total Hours	**61**

1 General Education Requirement
2 Program Elective (p. 285)
3 Human Diversity Courses < City Colleges of Chicago (ccc.edu) (https://catalog.ccc.edu/hd/)

Program Elective

Associate in Applied Science Electives

Code	Title	Hours
FIREMGT 104	Occupational Safety & Health for Emergency Services	3

FIREMGT 106	Fire Apparatus and Equipment Operator	3
FIREMGT 111	Basic Incident Command	3
FIREMGT 198	Strategies and Tactics II	3
FIREMGT 201	Fire Service Hydraulics	3
FIREMGT 205	Chemistry of Hazardous Materials	3
FIREMGT 207	HAZWOPER	3
FIREMGT 212	Fire Investigation I	3
FIREMGT 213	Fire Investigation II	3
FIREMGT 220	Fire Instructor I	3
FIREMGT 221	Fire Instructor II	3
SPANISH 195	Spanish for Firefighters and EMTs	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Firefighters

Job Description

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,724
Median 50th Percentile	$93,475
Senior-Level 90th Percentile	$134,040

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$45
Senior-Level 90th Percentile	$64

Annual Job Openings

475 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.25%
A certificate	24.60%
Some college	19.50%
An Associate degree	7.15%
A Bachelor's degree	0.43%
A Master's or Professional degree	2.96%
A Doctoral degree or more	0.10%

3.49% continue their education beyond an associate degree

Fire Inspectors and Investigators

Job Description

Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,065
Median 50th Percentile	$74,023
Senior-Level 90th Percentile	$128,709

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$36
Senior-Level 90th Percentile	$62

Annual Job Openings

11 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	29.44%
A certificate	27.49%
Some college	26.01%
An Associate degree	12.82%
A Bachelor's degree	2.19%
A Master's or Professional degree	2.04%
A Doctoral degree or more	0.00%

4.23% continue their education beyond an associate degree

Forest Fire Inspectors and Prevention Specialists

Job Description

Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,231
Median 50th Percentile	$57,890
Senior-Level 90th Percentile	$109,809

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$28
Senior-Level 90th Percentile	$53

Annual Job Openings

3 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.63%
A certificate	8.92%
Some college	17.52%
An Associate degree	17.90%
A Bachelor's degree	24.03%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

24.03% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Forklift Operation and Safety, Basic Certificate

College(s): OH

Program Code: 0848

The Forklift Operation and Safety Certificate Program prepares students to become safe and effective forklift operators. Upon completion of the program, students will have working knowledge of the basic use of lift trucks, as well as the ability to safely inspect and operate lift trucks. The curriculum includes theory and practical training.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
STTRDE 118	Forklift Operator	2
Total Hours		**2**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Industrial Truck and Tractor Operators

Job Description

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$40,451
Median 50th Percentile	$49,789
Senior-Level 90th Percentile	$63,873

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$24
Senior-Level 90th Percentile	$31

Annual Job Openings

911 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	95.95%
A certificate	0.00%
Some college	4.05%
An Associate degree	0.00%
A Bachelor's degree	0.00%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Game Design and Development, Associate in Applied Science

College(s): KK

Program Code: 0435

The Associate of Applied Science in Game Design and Development is designed to provide entry-level employment training, support the pursuance of advancement opportunities, and provide entrepreneurial training for those seeking to enter the gaming industry. Game design, development, testing, research, production, and business development are all skills that the program addresses. Additionally, the Game Design and Development program will provide future transfer opportunities to local universities offering baccalaureate level Game Design and Development programs.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher)	4
SPEECH 101	Fundamentals of Speech Communication	3
Fine Arts or Humanities course (HD)		3
PSYCH 201	General Psychology	3
Required Program Core		
ART 161	Freehand Drawing	3
COM DSGN 101	Introduction to Communication Design	3
COM DSGN 213	Motion Graphics II	3
GAME 105	Game Design I	3
GAME 106	Game Development and Society	3
GAME 109	Creating the Art of the Game I	3
GAME 153	Game Design II	3
GAME 160	Game Producing and Management I	3
GAME 209	Creating the Art of the Game II	3
GAME 241	Gamification	3
GAME 253	Game Design III	3
GAME 254	Game Programming	3
GAME 259	Business of Games	3
GAME 260	Game Producing and Management II	3
GAME 299	Game Studio	3
Total Hours		**61**

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Game Design and Development. It does not represent a contract, nor does it guarantee course availability. If the pathway is followed as outlined, you will earn an Associate in Applied Science degree in Game Design and Development. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ART 161	Freehand Drawing	3
COM DSGN 101	Introduction to Communication Design	3
GAME 105	Game Design I	3
GAME 106	Game Development and Society	3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 2		
GAME 109	Creating the Art of the Game I	3
GAME 153	Game Design II	3

GAME 160	Game Producing and Management I	3
COM DSGN 213	Motion Graphics II	3
MATH 118	General Education Math [1]	4
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
GAME 209	Creating the Art of the Game II	3
GAME 241	Gamification	3
GAME 253	Game Design III	3
GAME 254	Game Programming	3
	Hours	**15**
Semester 4		
GAME 259	Business of Games	3
GAME 260	Game Producing and Management II	3
GAME 299	Game Studio	3
PSYCH 201	General Psychology [1]	3
Fine Arts or Humanities Course (HD) [1]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education course

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Effects Artists and Animators

Job Description

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,250
Median 50th Percentile	$43,302
Senior-Level 90th Percentile	$122,520

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$21
Senior-Level 90th Percentile	$59

Annual Job Openings

43 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.53%
A certificate	0.00%
Some college	39.68%
An Associate degree	1.70%
A Bachelor's degree	52.75%
A Master's or Professional degree	0.34%
A Doctoral degree or more	0.00%

53.09% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Gas Utility Worker, Advanced Certificate

College(s): KK

Program Code: 0749

The Advanced Certificate program in Gas Utility Worker focuses on developing specific competencies related to the safe construction and operation of natural gas distribution systems. This program guides students through a comprehensive curriculum that covers both basic and advanced skill sets, aimed at improving on-the-job performance and swiftly transitioning students to the level of proficient workers upon employment. Graduates of this program will be well-equipped to pursue careers as utility workers within the gas utility industry.

Program Requirements

Code	Title	Hours
Required Program Core		
MATH 107	Math For Technicians I	3
332TECH 434	Introduction To Plumbing	3
332TECH 435	Plumbing Tools & Equipment	2
332TECH 449	Professional Development	2
332TECH 452	Basic Electrical Theory	3
332TECH 503	Gas Utility Training I	6
332TECH 472	Vocational Physical Training	2
332TECH 504	Gas Utility Training II	6
332TECH 505	Gas Utility Training III	3
332TECH 506	Gas Utility Training IV	4
432CMGT 609	Construction Safety II	3
CIS 120	Introduction to Computer Applications	3
Total Hours		**40**

Pathway

This is an **example course sequence** for students interested in gas utility work. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Gas Utility Worker. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MODULE 1		
MATH 107	Math For Technicians I	3
332TECH 434	Introduction To Plumbing	3
332TECH 435	Plumbing Tools & Equipment	2
CIS 120	Introduction to Computer Applications	3
MODULE 2		
332TECH 452	Basic Electrical Theory	3
432CMGT 609	Construction Safety II	3
332TECH 503	Gas Utility Training I	6
332TECH 504	Gas Utility Training II	6
	Hours	**29**
Semester 2		
MODULE 3		
332TECH 505	Gas Utility Training III	3
332TECH 449	Professional Development	2
332TECH 506	Gas Utility Training IV	4
332TECH 472	Vocational Physical Training	2
	Hours	**11**
	Total Hours	**40**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Meter Readers, Utilities

Job Description

Read meter and record consumption of electricity, gas, water, or steam.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$53,831
Median 50th Percentile	$92,683
Senior-Level 90th Percentile	$126,707

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$45
Senior-Level 90th Percentile	$61

Annual Job Openings

18 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	71.05%
A certificate	0.54%
Some college	17.28%
An Associate degree	8.74%
A Bachelor's degree	2.39%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

2.39% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

General Education Core Curriculum (GECC) Credential

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0005

The General Education Core Curriculum (GECC) Credential is a 37 credit hour transfer credential intended for students interested in completing a distribution of courses designed to satisfy the first two years of a baccalaureate degree at most four-year colleges or universities. The GECC Credential is aligned to the Associate in Arts degree and focuses on the general education requirements required for transfer. The GECC Credential is comprised of courses approved through the Illinois Articulation Initiative and must be completed according the general education categories below:

Code	Title	Hours
Communications		9
Math		3
Fine Art & Hum		9
Social & Behavioral Sciences		9
Physical and Life Science		7
Total Hours		**37**

Program Requirements

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Select one Math course for a minimum of three credit hours		3
MATH 118	General Education Math	
MATH 122	Math For Elementary Teachers II	
MATH 124	Critical Mathematics	
MATH 125	Introductory Statistics	
MATH 144	Finite Mathematics	
MATH 146	Discrete Mathematics	
MATH 204	Calculus For Business & Social Sciences	
MATH 207	Calculus & Analytic Geometry I	
MATH 208	Calculus & Analytic Geometry II	
MATH 209	Calculus & Analytic Geometry III	
Select three Fine Art & Hum courses for a minimum of nine credit hours [1]		9
AFRO AM 101	Introduction to African-American Studies	
ART 103	Art Appreciation	
ART 130	African-American Art	
CHINESE 104	Chinese IV	
CMMEDIA 163	Film Rhetoric	
RELIGN 101	Introduction To Religion	
RELIGN 102	The Bible - Hebrew Old Test	
RELIGN 103	The Bible - New Testament	
RELIGN 104	Introduction to Islam	
RELIGN 106	Comparative Religion I/Eastern Religion	
RELIGN 107	Com Rel II Western Religion	
FIN ART 104	The World Of The Cinema	
FIN ART 105	History of Painting, Sculpture & Architecture	
FIN ART 107	History of Architecture, Painting & Sculpture I	
FIN ART 108	Hist Of Arch Paint Sculp II	
FIN ART 109	History Of Cinema	
FIN ART 110	Opera And The Humanities	
FIN ART 111	History of Photography	

FIN ART 112	Dance Appreciation
FIN ART 114	Film History I
FIN ART 115	Film History II
FRENCH 104	Fourth Course French
FRENCH 213	Intro To Modern Literature French
FRENCH 214	Readings In Literature French
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research
GWSS 203	Feminist and Queer Artivisms for Social Change
HUM 123	Intro To Arts & Ideas
HUM 143	Intro to Latin American/Latino Studies
HUM 144	Gender and Feminisms in the Arts
HUM 145	Intro to Diversity/Ethnic Studies
HUM 146	Gay, Lesbian, Bisexual & Transgender
HUM 201	General Course I Humanities
HUM 202	General Course II Humanities
HUM 203	Arts of Contemporary America
HUM 205	World Literature I
HUM 207	The Great Books
HUM 208	Women In Creative-Performing Arts
HUM 209	Latinxs in Chicago
HUM 210	Comparative Mythology
HUM 212	Non-Western Humanities
HUM 215	The Art and Philosophy of the African Continent
ITALIAN 104	Fourth Course Italian
JAPANES 104	Fourth Course Japanese
LIT 110	Introduction To Literature
LIT 111	Poetry
LIT 112	Drama
LIT 113	Fiction
LIT 114	Ideas In Prose
LIT 115	Great Books Seminar/Topics Literature
LIT 116	American Literature from Colonial Days to Civil War
LIT 117	American Literature from the Civil War to the 20th Century
LIT 118	English Literature from its Beginnings to the Age of Johnson
LIT 119	English Literature from the Romantic Revival to the 20th Century
LIT 121	Contemporary African American Literature
LIT 122	Perspectives in Black Literature
LIT 123	Literature of the U.S. from the Civil War to the Present
LIT 126	Contemporary American Literature
LIT 127	Contemporary British Literature
LIT 128	Latin American Literature
LIT 129	U.S. Latino (a) Literature
LIT 130	Children's Literature
LIT 132	Native American Literature
LIT 137	The Black Woman In Black Fiction
LIT 150	Women's Literature
LIT 153	Gay and Lesbian Literature
LIT 155	Literature and Film
LIT 156	Creative Non-fiction
LIT 211	Shakespeare
LIT 220	World Literature
MUSIC 121	Introduction To Music
MUSIC 124	Trends In Mod Amer Music
MUSIC 183	World Music
MUSIC 221	Music Literature & History
PHIL 105	Logic
PHIL 106	Introduction To Philosophy
PHIL 107	Ethics
PHIL 108	Philosophy Of Religion
PHIL 110	Social/Political Philosophy
PHIL 201	Greek Philo To Renaissance
PHIL 202	Enlightenment To Present
PHIL 215	Problems In Philosophy
PHIL 216	Critical Thinking
POLISH 104	Fourth Course Polish
SPANISH 104	Fourth Course Spanish
SPANISH 111	Spanish For Hispanos
SPANISH 113	Spanish For Near Native Speakers I
SPANISH 210	Modern Civilization & Culture Spanish
SPANISH 213	Intro To Modern Literature Spanish
SPANISH 214	Readings In Literature Spanish
THR ART 131	Intro To Theater
THR ART 134	Theater Diversity in the U.S.
Select three Social & Behavioral Science courses for a minimum of 9 credit hours [2]	9
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans
ANTHRO 202	Cultural Anthropology
ANTHRO 205	Applied Anthropology
ANTHRO 206	Introduction to Archaeology
ECON 201	Principles Of Economics I
ECON 202	Principles Of Economics II
GEOG 101	World Geography
GEOG 102	Economic Geography
GWSS 102	Introduction to Gender and Sexuality Diversity
GWSS 103	Introduction to Social Justice
HISTORY 111	History of American People To 1865
HISTORY 112	History of American People From 1865
HISTORY 114	The Afro-American In American History
HISTORY 141	History of World Civilization to 1500
HISTORY 142	Hist World Civiliz Frm 1500
HISTORY 215	History of Latin America
HISTORY 216	U.S. Latinx History
HISTORY 225	Modern Middle East History
HISTORY 243	The Far East in the Modern World
HISTORY 247	African History to Colonial Period
HISTORY 248	African History - Modern Period
POL SCI 200	Principles of Political Science
POL SCI 201	The National Government

POL SCI 203	Comparative Government
POL SCI 204	International Relations
POL SCI 207	U.S. State & Local Government
PSYCH 201	General Psychology
PSYCH 207	Child Psychology
PSYCH 211	Social Psychology
PSYCH 214	Adolescent Psychology
PSYCH 222	Adult Development And Aging
PSYCH 224	Life Span Developmental Psychology
SOC SCI 101	General Course I Social Science
SOC SCI 102	General Course II Social Science
SOC 201	Intro To the Study Of Society
SOC 203	Sociology of Families and Intimate Relationships
SOC 205	Social Problems
SOC 207	The Sociology Of Sex & Gender
SOC 211	Race & Ethnic Relations
SOC 241	Institutional Racism
Select two Physical & Life Science courses for a minimum of 7 credit hours [3]	7
ASTROMY 201	Descriptive Astronomy
ASTROMY 203	The Solar System
BIOLOGY 109	Human Genetics & Evolution
BIOLOGY 114	General Education Biology
BIOLOGY 115	Human Biology
BIOLOGY 119	Environmental Biology
BIOLOGY 121	Biology I
BIOLOGY 122	Biology II
BOTANY 201	General Botany I
CHEM 121	Basic Chemistry I
CHEM 201	General Chemistry I
ENVR ST 101	Man & Environment I
ENVR TC 107	Environmental Geology
GEOG 201	Physical Geography
GEOLOGY 201	Physical Geology
OCEAN 101	Intro To Oceanography
OCEAN 201	Marine Sciences
PHY SCI 101	General Course Physical Science
PHY SCI 102	General Course Physical Science
PHY SCI 107	Current Public Issues in Physical Science
PHY SCI 111	General Course I Physical Science
PHY SCI 112	General Course II Physical Science
PHY SCI 118	Introduction to Meteorology
PHYSICS 115	Physics of Energy and Climate
PHYSICS 221	Mechanics, Waves, and Heat
PHYSICS 231	General Physics I: Mechanics & Wave Motion
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion
Total Hours	**37**

[1] At least one (1) of the courses must be from the Fine Arts category, and at least one must be from the Humanities category

[2] At least two of the courses must be from different disciplines

[3] At least one of the courses must be a lab course, at least one of the courses must be a Life Science category course, and at least one of the courses courses must be a Physical Science category

Health Information Technology, Associate in Applied Science

College(s): MX

Program Code: 0408

The Health Information Technology (HIT) program offers an introductory career-focused educational path into the healthcare industry. This program is designed for students who aspire to become healthcare professionals in the Health Information Technology (HIT) career field that includes professional opportunities for Medical Coders and Billers. This program is designed to prepare students to successfully attain a variety of professional coding certifications such as the Certified Coding Professional (CPC) through the American Academy of Professional Coders (AAPC). The knowledge and skills upon completion of the Health Information Technology (HIT) Associate's Program will allow students to enter the vast opportunities that are available in the healthcare industry.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Health Information Technology program, including the application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Health-Information-Technology.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework		
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology Human Structure and Function I and Human Structure and Function II	4
ENGLISH 101	Composition	3
MATH 125	Introductory Statistics	4
PSYCH 201	General Psychology	3
SPEECH 101	Fundamentals of Speech Communication	3
Required Program Core		
CIS 120	Introduction to Computer Applications	3
HIT 101	Foundations of HIT	3
HIT 102	Medical Billing	4
HIT 103	Basic ICD-10-CM/PCS Coding	3
HIT 104	Basic CPT Coding	3
HIT 105	Pharmacology for HIT Professionals	2
HIT 108	Advanced ICD-10-CM/PCS Coding	3
HIT 109	Advanced CPT Coding	3
HIT 110	Medical Terms for HIT Professionals	3
HIT 201	Fundamentals of Medical Science	3
HIT 203	Reimbursement Methodologies	3
HIT 204	Health Statistics & Registries	2
HIT 213	Supervisory and Legal Aspects (HD)	3
HIT 214	Quality and Performance Improvement	3
Required Work-Based Learning Courses		
HIT 221	Professional Practice I	3
HIT 222	Professional Practice II	4
Total Hours		**65**

One course must fulfill the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Health Information Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Medical Billing, an Advanced Certificate (AC) in Medical Coding and an Associate in Applied Science (AAS) Degree in Health Information Technology.

The Health Information Technology (HIT) program prepares students with the knowledge, skills, and abilities to organize and manage health information data in both paper and electronic systems. Students will acquire knowledge and develop application skills for a variety of classification systems to code for reimbursement, databases and registries, and the maintenance of patients' medical and treatment histories. Program graduates will be eligible to earn the following: a basic certificate in billing, an advanced certificate in coding and/or an AAS degree in Health Information Technology. Completion of this program leads to roles in data collection, data abstraction, enhanced coding and monitoring, maintenance and reporting activities. The Basic Certificate will prepare students to obtain entry level positions as medical billers in hospitals, physician private practices, as well as insurance companies. The Advanced Certificate in medical coding equips students for roles as medical coders in hospitals, physician private practices, as well as insurance companies. The AAS will prepare students for advanced biller/coder roles as well as for entry-level roles in the information systems department of healthcare systems and insurance companies.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 120	Introduction to Computer Applications [1]	3
	Hours	**3**
Semester 2		
BIOLOGY 116	Introduction to Anatomy And Physiology [1,2,3]	4
HIT 101	Foundations of HIT [1]	3
HIT 105	Pharmacology for HIT Professionals [1]	2
HIT 110	Medical Terms for HIT Professionals [1]	3
	Hours	**12**
Semester 3		
ENGLISH 101	Composition [2]	3
HIT 102	Medical Billing	4
HIT 201	Fundamentals of Medical Science	3
PSYCH 201	General Psychology [2]	3
	Hours	**13**
Semester 4		
HIT 103	Basic ICD-10-CM/PCS Coding	3
HIT 104	Basic CPT Coding	3
MATH 125	Introductory Statistics [2]	4
SPEECH 101	Fundamentals of Speech Communication [2]	3
	Hours	**13**
Semester 5		
HIT 108	Advanced ICD-10-CM/PCS Coding	3
HIT 213	Supervisory and Legal Aspects	3
HIT 214	Quality and Performance Improvement	3
HIT 221	Professional Practice I	3
	Hours	**12**
Semester 6		
HIT 109	Advanced CPT Coding	3
HIT 203	Reimbursement Methodologies	3
HIT 204	Health Statistics & Registries	2
HIT 222	Professional Practice II	4
	Hours	**12**
	Total Hours	**65**

[1] Program prerequisite
[2] General Education Requirement
[3] This course requirement can also be fulfilled by taking both BIOLOGY 226 and BIOLOGY 227.

Choose your courses with your College Advisor.

Special Admission Requirements

- Completion of pre-admission HIT requirement courses with a grade of C or higher:

Code	Title	Hours
BIOLOGY 116	Introduction to Anatomy And Physiology	4
or BIOLOGY 226 & BIOLOGY 227	Human Structure and Function I and Human Structure and Function II	
CIS 120	Introduction to Computer Applications	3
HIT 101	Foundations of HIT	3
HIT 105	Pharmacology for HIT Professionals	2
HIT 110	Medical Terms for HIT Professionals	3
Eligibility for MATH 125		

- Cumulative GPA of 2.0 or higher.
- Submit High School Transcripts or GED Equivalent.
- Submit official college transcripts from all colleges attended outside of City Colleges of Chicago to the Malcolm X College Office of Registrar Services.
- On-campus/virtual interview, in-person interview.
- Submit one Letter of Recommendation at the time of interview.
- Once accepted to the program and prior to registration; students must complete the following:
  - Background check
  - Drug screen
  - Provide current immunization records
- Students need to have transportation to and from their clinical sites.

For more information on the Health Information Technology program, including the application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Health-Information-Technology.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Medical and Health Services Managers

Job Description

Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$75,435
Median 50th Percentile	$117,748
Senior-Level 90th Percentile	$223,734

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$57
Senior-Level 90th Percentile	$108

Annual Job Openings

966 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	3.57%
A certificate	7.14%
Some college	3.57%
An Associate degree	10.71%
A Bachelor's degree	46.43%
A Master's or Professional degree	25.00%
A Doctoral degree or more	3.57%

75.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Hospitality Management, Advanced Certificate

College(s): KK

Program Code: 0740

The Advanced Certificate in Hospitality Management introduces students to the operations and functions of the restaurant and hotel industries from a service and management standpoint. Classes are lecture and lab based to give maximum exposure to the industry and will allow students the opportunity to interact in real-world settings. The curriculum has customer service as an underlying theme of all classes and the importance is stressed throughout each and every class throughout the program. Coursework includes management skills, financial management, restaurant and hotel operational management, resume writing and interviewing techniques.

Program Requirements

Code	Title	Hours
Required Program Core		
330CUL 700	College Success Hospitality Perspective	3
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
HMGT 724	Hospitality Management	3
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
HMGT 808	Restaurant Operations	4
HMGT 810	Bar and Beverage Management	3
HMGT 812	Hotel and Lodging Operations	4
HMGT 814	Hospitality Procurement	3
Total Hours		**39**

Pathway

This is an **example course sequence** for students interested in earning a degree in Hospitality Management. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Culinary Arts and an Advanced Certificate (AC) in Hospitality Management. It does not represent a contract, nor does it guarantee course availability.

Student must be eligible for ENGLISH 96 Aligned Reading and Composition *and* MATH 98 Beginning Algebra with Geometry *to begin core curriculum classes*.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
330CUL 700	College Success Hospitality Perspective	3
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
	Hours	**16**
Semester 2		
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
HMGT 724	Hospitality Management	3
HMGT 808	Restaurant Operations	4
	Hours	**13**
Semester 3		
HMGT 812	Hotel and Lodging Operations	4

HMGT 814	Hospitality Procurement	3
HMGT 810	Bar and Beverage Management	3
	Hours	**10**
	Total Hours	**39**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Food Preparation and Serving Workers

Job Description

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,120
Median 50th Percentile	$42,490
Senior-Level 90th Percentile	$68,033

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

2825 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.94%
A certificate	9.69%
Some college	2.09%
An Associate degree	7.28%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Food Service Managers

Job Description

Plan, direct, or coordinate activities of an organization or department that serves food and beverages.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,590
Median 50th Percentile	$60,571
Senior-Level 90th Percentile	$114,020

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$29
Senior-Level 90th Percentile	$55

Annual Job Openings

795 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	70.56%
A certificate	4.83%
Some college	18.35%
An Associate degree	0.71%
A Bachelor's degree	5.54%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.54% continue their education beyond an associate degree

Hotel, Motel, and Resort Desk Clerks

Job Description

Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,788
Median 50th Percentile	$38,966
Senior-Level 90th Percentile	$51,435

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$25

Annual Job Openings

553 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	76.03%
A certificate	2.42%
Some college	10.79%
An Associate degree	6.17%
A Bachelor's degree	4.60%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.60% continue their education beyond an associate degree

Lodging Managers

Job Description

Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,760
Median 50th Percentile	$54,842
Senior-Level 90th Percentile	$130,277

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$26
Senior-Level 90th Percentile	$63

Annual Job Openings

68 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	19.47%
A certificate	0.00%
Some college	5.89%
An Associate degree	3.05%
A Bachelor's degree	71.60%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

71.60% continue their education beyond an associate degree

Meeting, Convention, and Event Planners

Job Description

Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,044
Median 50th Percentile	$64,004
Senior-Level 90th Percentile	$105,542

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$31
Senior-Level 90th Percentile	$51

Annual Job Openings

335 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.85%
A certificate	6.64%
Some college	37.22%
An Associate degree	7.49%
A Bachelor's degree	40.80%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

40.80% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Hospitality Management, Associate in Applied Science

College(s): KK

Program Code: 0735

The Associate in Applied Science degree in Hospitality Management continues to focus on building management skills and provides for jobs as guest service agents, front office supervisors, sales managers, event planners, hotel managers, food and beverage managers, assistant food and beverage directors, food and beverage directors, beverage managers, guest services managers, and directors of catering.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math	4
Humanities course		3
Social and Behavioral Sciences course		3
Required Program Core		
330CUL 700	College Success Hospitality Perspective	3
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2
330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
HMGT 724	Hospitality Management	3
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
HMGT 808	Restaurant Operations	4
HMGT 810	Bar and Beverage Management	3
HMGT 812	Hotel and Lodging Operations	4
HMGT 814	Hospitality Procurement	3
HMGT 816	Introduction to Hospitality Marketing Principles	3
Required Work-Based Learning Courses		
HMGT 860	Hospitality Internship	4
Program Electives		
HMGT 830	Catering and Event Management	3
or HMGT 835	Introduction to Casino Operations Management	
Total Hours		**65**

[1] One course must fulfill the Human Diversity requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Hospitality Management. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Culinary Arts and an Advanced Certificate (AC) and an Associate in Applied Science Degree (AAS) in Hospitality Management. It does not represent a contract, nor does it guarantee course availability. Courses may be substituted within the indicated categories (except Communications courses). One course will satisfy the Human Diversity (HD) requirement, and is labeled with an "HD" in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
330CUL 700	College Success Hospitality Perspective	3
330CUL 701	Intro To Food Service I	3
330CUL 703	Food Sanitation & Safety I	2

330CUL 705	Chef's Training I-Section A	4
330CUL 708	Chef's Training I-Section B	4
	Hours	**16**
Semester 2		
HMGT 806	Customer Service Fundamentals	3
HMGT 807	Hospitality Financial Management	3
HMGT 724	Hospitality Management	3
HMGT 808	Restaurant Operations	4
ENGLISH 101	Composition [1]	3
	Hours	**16**
Semester 3		
HMGT 812	Hotel and Lodging Operations	4
HMGT 814	Hospitality Procurement	3
HMGT 810	Bar and Beverage Management	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
MATH 118	General Education Math [1]	4
	Hours	**17**
Semester 4		
HMGT 816	Introduction to Hospitality Marketing Principles	3
HMGT 860	Hospitality Internship	4
HMGT 830 or HMGT 835	Catering and Event Management [2] or Introduction to Casino Operations Management	3
ANTHRO 202	Cultural Anthropology [1]	3
HUM 201	General Course I Humanities [1]	3
	Hours	**16**
	Total Hours	**65**

[1] General Education Requirement
[2] Program Elective

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Food Preparation and Serving Workers

Job Description

Directly supervise and coordinate activities of workers engaged in preparing and serving food.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

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Annual Wages

Entry-Level 10th Percentile	$31,120
Median 50th Percentile	$42,490
Senior-Level 90th Percentile	$68,033

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

2825 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.94%
A certificate	9.69%
Some college	2.09%
An Associate degree	7.28%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Food Service Managers

Job Description

Plan, direct, or coordinate activities of an organization or department that serves food and beverages.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

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Senior-Level 90th Percentile	$114,020

Hourly Wages

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Senior-Level 90th Percentile	$55

Annual Job Openings

795 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	70.56%
A certificate	4.83%
Some college	18.35%
An Associate degree	0.71%
A Bachelor's degree	5.54%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

5.54% continue their education beyond an associate degree

Hotel, Motel, and Resort Desk Clerks

Job Description

Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.

Salary Based on Experience Level

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Entry-Level 10th Percentile	$32,788
Median 50th Percentile	$38,966
Senior-Level 90th Percentile	$51,435

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$19
Senior-Level 90th Percentile	$25

Annual Job Openings

553 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	76.03%
A certificate	2.42%
Some college	10.79%
An Associate degree	6.17%
A Bachelor's degree	4.60%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.60% continue their education beyond an associate degree

Lodging Managers

Job Description

Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,760
Median 50th Percentile	$54,842
Senior-Level 90th Percentile	$130,277

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$26
Senior-Level 90th Percentile	$63

Annual Job Openings

68 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	19.47%
A certificate	0.00%
Some college	5.89%
An Associate degree	3.05%
A Bachelor's degree	71.60%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

71.60% continue their education beyond an associate degree

Meeting, Convention, and Event Planners

Job Description

Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,044
Median 50th Percentile	$64,004
Senior-Level 90th Percentile	$105,542

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$31
Senior-Level 90th Percentile	$51

Annual Job Openings

335 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.85%
A certificate	6.64%
Some college	37.22%
An Associate degree	7.49%
A Bachelor's degree	40.80%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

40.80% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Human Development and Family Studies, Advanced Certificate

College(s): TR

Program Code: 0459

The AAS degree, Advanced Certificate, and Basic Certificate credentials in Human Development and Family Studies are based on the individual and family perspective, an interdisciplinary field that integrates several behavioral, social, and biological concepts to understand human interaction and development. Program graduates work in social service agencies, retirement communities, and other geriatric facilities, non-profit and education centers.

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
ENGLISH 101	Composition	3
HDFS 202	Intimate Relationships	3
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
HDFS 214	Basic Applications in Human Services	3
HDFS 215	Practicum for Human Services	6
PSYCH 201	General Psychology	3
Total Hours		**31**

Pathway

Are you interested in learning about human development, and studying the nature of relationships and the role of families? If so, a pathway in Human Development and Family Studies might be right for you. The AAS in Human Development and Family Studies can lead to employment as a Human Services Assistant or Family Specialist in social service agencies, Head Start daycares, community-based organizations and non-profits, among others.

This is an **example course sequence** for students interested in pursuing Human Development and Family Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Human Development and Family Studies.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		**Hours**
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
CHLD DV 101	Human Growth & Development I	4
	Hours	**10**
Semester 2		
CHLD DV 102	Human Growth & Development II	3
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
	Hours	**9**
Semester 3		
HDFS 202	Intimate Relationships	3
HDFS 214	Basic Applications in Human Services	3
	Hours	**6**
Semester 4		
HDFS 215	Practicum for Human Services	6
	Hours	**6**
	Total Hours	**31**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Social and Community Service Managers

Job Description

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,316
Median 50th Percentile	$76,661
Senior-Level 90th Percentile	$125,879

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$37
Senior-Level 90th Percentile	$61

Annual Job Openings

383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.24%
A certificate	0.00%
Some college	2.19%
An Associate degree	8.15%
A Bachelor's degree	50.36%
A Master's or Professional degree	32.05%
A Doctoral degree or more	0.00%

82.41% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Human Development and Family Studies, Associate in Applied Science

College(s): TR

Program Code: 0391

The AAS degree program in Human Development and Family Studies is based on the individual and family perspective, an interdisciplinary field that integrates several behavioral, social, and biological concepts to understand human interaction and development. Program graduates work in social service agencies, retirement communities, and other geriatric facilities, non-profit and education centers.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
BIOLOGY 114	General Education Biology	4
or BIOLOGY 115	Human Biology	
HUM 143	Intro to Latin American/Latino Studies	3
or HUM 212	Non-Western Humanities	
MATH 125	Introductory Statistics	4
PHIL 105	Logic	3
or PHIL 107	Ethics	
PSYCH 201	General Psychology	3
SOC 201	Intro To the Study Of Society (HD)	3
SPEECH 101	Fundamentals of Speech Communication	3
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
HDFS 202	Intimate Relationships	3
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
HDFS 214	Basic Applications in Human Services	3
Required Work-Based Learning Courses		
HDFS 215	Practicum for Human Services	6
Program Electives		
Select a minimum of 6 credit hours of the following:		6
ART 131	General Drawing	
ART 163	Water Color Painting	
CHLD DV 107	Health Safety And Nutrition	
CIS 120	Introduction to Computer Applications	
PSYCH 213	Abnormal Psychology	
Total Hours		**60**

Pathway

Are you interested in learning about human development, and studying the nature of relationships and the role of families? If so, a pathway in Human Development and Family Studies might be right for you. The AAS in Human Development and Family Studies can lead to employment as a Human Services Assistant or Family Specialist in social service agencies, Head Start daycares, community-based organizations and non-profits, among others.

This is an **example course sequence** for students interested in pursuing Human Development and Family Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), an Advanced Certificate (AC), and an Associate in Applied Science (AAS) degree In Human Development and Family Studies. One course will satisfy the

Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
PSYCH 201	General Psychology [1]	3
CHLD DV 101	Human Growth & Development I	4
	Hours	**14**
Semester 2		
ENGLISH 102	Composition	3
CHLD DV 102	Human Growth & Development II	3
CHLD DV 107	Health Safety And Nutrition [2]	3
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
	Hours	**15**
Semester 3		
PHIL 105 or PHIL 107	Logic [1] or Ethics	3
SOC 201	Intro To the Study Of Society [1]	3
HDFS 202	Intimate Relationships	3
HDFS 214	Basic Applications in Human Services	3
PSYCH 213	Abnormal Psychology [2]	3
	Hours	**15**
Semester 4		
HUM 143 or HUM 212	Intro to Latin American/Latino Studies (HD) [1] or Non-Western Humanities	3
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
SPEECH 101	Fundamentals of Speech Communication [1]	3
HDFS 215	Practicum for Human Services	6
	Hours	**16**
	Total Hours	**60**

[1] General Education Requirement
[2] Program Elective (p. 311)

Program Electives

Code	Title	Hours
ART 131	General Drawing	3
ART 163	Water Color Painting	3
CHLD DV 107	Health Safety And Nutrition	3
CIS 120	Introduction to Computer Applications	3
PSYCH 213	Abnormal Psychology	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Social and Community Service Managers

Job Description

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,316
Median 50th Percentile	$76,661
Senior-Level 90th Percentile	$125,879

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$37
Senior-Level 90th Percentile	$61

Annual Job Openings

383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.24%
A certificate	0.00%
Some college	2.19%
An Associate degree	8.15%
A Bachelor's degree	50.36%
A Master's or Professional degree	32.05%
A Doctoral degree or more	0.00%

82.41% continue their education beyond an associate degree

Human Development and Family Studies, Basic Certificate

College(s): TR

Program Code: 0425

Human Development and Family Studies, Basic Certificate

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
CHLD DV 101	Human Growth & Development I	4
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in pursuing Human Development and Family Studies. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Pathway for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CHLD DV 101	Human Growth & Development I [1]	4
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
	Hours	**10**
Semester 2		
HDFS 203	Family Development/Cross Cultural Perspective	3
HDFS 211	Principles of Human Services	3
	Hours	**6**
	Total Hours	**16**

[1] Prerequisite for HDFS 203

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Social and Community Service Managers

Job Description

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,316
Median 50th Percentile	$76,661
Senior-Level 90th Percentile	$125,879

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$37
Senior-Level 90th Percentile	$61

Annual Job Openings

383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.24%
A certificate	0.00%
Some college	2.19%
An Associate degree	8.15%
A Bachelor's degree	50.36%
A Master's or Professional degree	32.05%
A Doctoral degree or more	0.00%

82.41% continue their education beyond an associate degree

Human Resources, Basic Certificate

College(s): HW

Program Code: 0419

The Basic Certificate program in Human Resources is designed to provide students who have little or no formal business knowledge of the Human Resources industry with introductory information and understanding of business, human resources, and employment law. Students will gain knowledge of business operations, business and human capital management, benefits and compensation, workforce planning, organizational development, employment law, and soft skills.

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 271	Human Resources Management	3
BUSINES 273	Organizational Behavior	3
BUSINES 278	Compensation & Benefits Administration	3
BUSINES 279	Human Resources Planning & Staffing	3
Program Electives		
Select a minimum of 6 credit hours of the following:		6
BUSINES 214	The Legal & Social Environment of Business	
BUSINES 281	Corporate Organizations: Understanding Business Processes	
BUSINES 213	Data Visualization and Presentation for Business	
CIS 120	Introduction to Computer Applications	
CIS 123	Microcomputer Spreadsheets	
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing Human Resources. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate.

Semester-by-Semester Program Plan for Full-Time Student

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
BUSINES 271	Human Resources Management	3
Program Elective (p. 315)		3
Program Elective (p. 315)		3
	Hours	**9**
Semester 2		
BUSINES 273	Organizational Behavior	3
BUSINES 278	Compensation & Benefits Administration	3
BUSINES 279	Human Resources Planning & Staffing	3
	Hours	**9**
	Total Hours	**18**

Program Electives

Code	Title	Hours
BUSINES 214	The Legal & Social Environment of Business	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 281	Corporate Organizations: Understanding Business Processes	3
CIS 120	Introduction to Computer Applications	3
CIS 123	Microcomputer Spreadsheets	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Compensation, Benefits, and Job Analysis Specialists

Job Description

Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$46,386
Median 50th Percentile	$80,890
Senior-Level 90th Percentile	$127,748

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$39
Senior-Level 90th Percentile	$61

Annual Job Openings

130 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.76%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	95.23%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

95.23% continue their education beyond an associate degree

Industrial Supervision Engineering Technology, Advanced Certificate

College(s): DA

Program Code: 0454

Supervisors are the manufacturing company leaders that organize the production operations to achieve production goals, improvements and targets. Students in this program will gain an understanding of production process, robotics, and quality assurance process to be able to be knowledgeable of the operations they may be responsible for leading. Students take courses in production processes with hands on labs as well as in management, human resources, project management and supervision to be knowledgeable of the many facets involved with leading a production team.

Program Requirements

Code	Title	Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 195	Welding I GMAW Manual Machining II	3
BUSINES 111	Introduction To Business	3
BUSINES 269	Principles Of Management	3
BUSINES 271	Human Resources Management	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing Industrial Supervision Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) in Industrial Supervision Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
BUSINES 111	Introduction To Business	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
BUSINES 269	Principles Of Management	3
BUSINES 271	Human Resources Management	3
	Hours	**15**
	Total Hours	**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Production and Operating Workers

Job Description

Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,012
Median 50th Percentile	$72,823
Senior-Level 90th Percentile	$105,188

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$51

Annual Job Openings

992 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	47.00%
A certificate	11.60%
Some college	14.96%
An Associate degree	13.62%
A Bachelor's degree	11.96%
A Master's or Professional degree	0.86%
A Doctoral degree or more	0.00%

12.82% continue their education beyond an associate degree

First-Line Supervisors of Mechanics, Installers, and Repairers

Job Description

Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,992
Median 50th Percentile	$88,978
Senior-Level 90th Percentile	$134,646

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$43
Senior-Level 90th Percentile	$65

Annual Job Openings

576 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	57.20%
A certificate	13.08%
Some college	16.91%
An Associate degree	3.20%
A Bachelor's degree	7.57%
A Master's or Professional degree	0.00%
A Doctoral degree or more	2.05%

9.62% continue their education beyond an associate degree

Industrial Supervision Engineering Technology, Associate in Applied Science

College(s): DA

Program Code: 0455

Supervisors are the manufacturing company leaders that organize the production operations to achieve production goals, improvements and targets. Students in this program will gain a solid overview of production process, robotics, and quality assurance process and maintenance techniques commonly found in industrial manufacturing plants to be knowledgeable of the operations they may be responsible for in their career. Students take courses in production process with hands on labs as well as in management, human resources, project management and supervision to be knowledgeable of the many facets involved with leading a production team. Students are also able to continue their studies to pursue a Bachelor's Degree at other institutions to further advance their skills in this exciting aspect of manufacturing and production.

Program Requirements

Code	Title	Hours
General Education Requirements [1]		
MATH 140	College Algebra	4
ENGLISH 101	Composition	3
Social and Behavioral Sciences		3
Fine Arts/Humanities		3
Physical Sciences/Life Sciences		3
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
or 340MFGT 19	Manual Machining II	
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 188	Industrial Electricity I	3
340MFGT 272	QUALITY SYSTEMS II	3
340MFGT 287	Maintenance Technologies I	3
BUSINES 111	Introduction To Business	3
BUSINES 269	Principles Of Management	3
BUSINES 271	Human Resources Management	3
Electives		
Choose one additional course from 340MFGT [2]		3
Total Hours		**61**

[1] At least one course must meet the Human Diversity (HD) (p. 605) requirement.

[2] 340MFGT Manufacturing courses can be found here (p. 721)

Pathway

This is an **example course sequence** for students interested in pursuing Industrial Supervision Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology, and an Advanced Certificate (AC) and Associate in Applied Science (AAS) in Industrial Supervision Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
BUSINES 111	Introduction To Business	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
BUSINES 269	Principles Of Management	3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 3		
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 188	Industrial Electricity I	3
BUSINES 271	Human Resources Management	3
MATH 140	College Algebra [1]	4
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 4		
340MFGT 172	Quality Systems I	3
340MFGT 287	Maintenance Technologies I	3
340MFGT Manufacturing Elective (p. 721)		3
Fine Arts/Humanities course (HD) [1]		3
Physical Sciences/Life Sciences course [1]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education course

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Production and Operating Workers

Job Description

Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,012
Median 50th Percentile	$72,823
Senior-Level 90th Percentile	$105,188

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$51

Annual Job Openings

992 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	47.00%
A certificate	11.60%
Some college	14.96%
An Associate degree	13.62%
A Bachelor's degree	11.96%
A Master's or Professional degree	0.86%
A Doctoral degree or more	0.00%

12.82% continue their education beyond an associate degree

First-Line Supervisors of Mechanics, Installers, and Repairers

Job Description

Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,992
Median 50th Percentile	$88,978
Senior-Level 90th Percentile	$134,646

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$43
Senior-Level 90th Percentile	$65

Annual Job Openings

576 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	57.20%
A certificate	13.08%
Some college	16.91%
An Associate degree	3.20%
A Bachelor's degree	7.57%
A Master's or Professional degree	0.00%
A Doctoral degree or more	2.05%

9.62% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

iOS and MacOS Development, Basic Certificate

College(s): TR

Program Code: 0460

The iOS and MacOS Development basic certificate (BC) program will guide students through a full exploration of coding tasks via various teaching modalities to develop, design, and build applications for Apple devices and environments. Students will create a digital portfolio where they will maintain ideas, prototypes, and apps as well as explore design concepts, advertising, and management of various support software applications. Student will gain knowledge and skill to management devices and software.

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 103	Fundamentals of Programming	3
CIS 117	Introduction to Apple Development	3
CIS 201	Advanced Apple Development	3
NET TEC 101	Client-Server Database I	3
Program Electives		**6**
Select two of the following courses:		
CIS 119	Apple User Management	
CIS 113	Human-Computer Interaction	
EDUC 226	Foundations of Educational Technology	
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in pursuing iOS and MacOS Development. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in iOS and MacOS Development.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CIS 103	Fundamentals of Programming	3
CIS 117	Introduction to Apple Development	3
	Hours	**6**
Semester 2		
CIS 201	Advanced Apple Development	3
Program Elective (p. 322) [1]		3
	Hours	**6**
Semester 3		
NET TEC 101	Client-Server Database I	3
Program Elective (p. 322) [1]		3
	Hours	**6**
	Total Hours	**18**

[1] Program Elective (p. 322)

Program Electives

Code	Title	Hours
CIS 113	Human-Computer Interaction	3
CIS 119	Apple User Management	3
EDUC 226	Foundations of Educational Technology	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Computer Programmers

Job Description

Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,683
Median 50th Percentile	$88,492
Senior-Level 90th Percentile	$181,058

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$43
Senior-Level 90th Percentile	$87

Annual Job Openings

46 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	2.52%
An Associate degree	8.99%
A Bachelor's degree	88.04%
A Master's or Professional degree	0.45%
A Doctoral degree or more	0.00%

88.49% continue their education beyond an associate degree

Software Developers

Job Description

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$79,803
Median 50th Percentile	$135,040
Senior-Level 90th Percentile	$185,815

Hourly Wages

Entry-Level 10th Percentile	$38
Median 50th Percentile	$65
Senior-Level 90th Percentile	$89

Annual Job Openings

1880 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	1.41%
Some college	0.00%
An Associate degree	3.23%
A Bachelor's degree	79.73%
A Master's or Professional degree	15.64%
A Doctoral degree or more	0.00%

95.37% continue their education beyond an associate degree

Web and Digital Interface Designers

Job Description

Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate

web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,087
Median 50th Percentile	$92,905
Senior-Level 90th Percentile	$149,947

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$45
Senior-Level 90th Percentile	$72

Annual Job Openings

121 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.50%
A certificate	16.67%
Some college	4.17%
An Associate degree	16.67%
A Bachelor's degree	50.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

50.00% continue their education beyond an associate degree

Learning Behavior Specialist 1, Basic Certificate

College(s): TR

Program Code: 0443

The Basic Certificate-Learning Behavior Specialist (LBS1) Endorsement is for undergraduate degree holders with an Illinois Professional Educator License. The Learning Behavior Specialist (LBS1) Endorsement prepares students to teach in special education settings.

Program Requirements

Code	Title	Hours
Required Program Core		
EDUC 120	Survey of Characteristics	4
EDUC 121	Principles and Practice	4
EDUC 122	Psychological Diagnosis	4
Program Electives		
Select one of the following:		3
CHLD DV 205	Development of Exceptional Child	
EDUC 171	Language and Literacy in ECSE	
EDUC 203	Educational Psychology	
EDUC 220	Theoretical Foundations of 2nd Language Acquisition and Learning	
Any general PSYCH or SOC SCI course		
Total Hours		**15**

Pathway

This is an **example course sequence** for students interested in earning a Learning Behavior Specialist 1 Endorsement. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Learning Behavior Specialist 1.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
EDUC 120	Survey of Characteristics	4
EDUC 121	Principles and Practice	4
	Hours	**8**
Semester 2		
EDUC 122	Psychological Diagnosis	4
Select one of the following: [1]		**3**
CHLD DV 205	Development of Exceptional Child	
EDUC 171	Language and Literacy in ECSE	
EDUC 203	Educational Psychology	
PSYCH 207	Child Psychology	
SOC SCI 101	General Course I Social Science	
	Hours	**7**
	Total Hours	**15**

[1] Program elective

Special Admission Requirements

In order to be admitted to the program participants must:

1) hold a bachelor's degree; and

2) Illinois professional educator license (PEL)

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Special Education Teachers, Preschool

Job Description

Teach academic, social, and life skills to preschool-aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$41,629
Median 50th Percentile	$61,120
Senior-Level 90th Percentile	$102,879

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$29
Senior-Level 90th Percentile	$49

Annual Job Openings

38 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	1.44%
An Associate degree	3.00%
A Bachelor's degree	63.43%
A Master's or Professional degree	32.13%
A Doctoral degree or more	0.00%

95.56% continue their education beyond an associate degree

Special Education Teachers, Kindergarten

Job Description

Teach academic, social, and life skills to kindergarten students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,255
Median 50th Percentile	$83,099
Senior-Level 90th Percentile	$109,659

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$40
Senior-Level 90th Percentile	$53

Annual Job Openings

391 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.96%
An Associate degree	0.00%
A Bachelor's degree	66.02%
A Master's or Professional degree	27.83%
A Doctoral degree or more	5.19%

99.04% continue their education beyond an associate degree

Special Education Teachers, Elementary School

Job Description

Teach academic, social, and life skills to elementary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,255
Median 50th Percentile	$83,099
Senior-Level 90th Percentile	$109,659

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$40
Senior-Level 90th Percentile	$53

Annual Job Openings

391 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.96%
An Associate degree	0.00%
A Bachelor's degree	66.02%
A Master's or Professional degree	27.83%
A Doctoral degree or more	5.19%

99.04% continue their education beyond an associate degree

Special Education Teachers, Middle School

Job Description

Teach academic, social, and life skills to middle school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,096
Median 50th Percentile	$79,775
Senior-Level 90th Percentile	$112,660

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$38
Senior-Level 90th Percentile	$54

Annual Job Openings

126 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	53.05%
A Master's or Professional degree	46.95%
A Doctoral degree or more	0.00%

100.00% continue their education beyond an associate degree

Special Education Teachers, Secondary School

Job Description

Teach academic, social, and life skills to secondary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$58,388
Median 50th Percentile	$87,045
Senior-Level 90th Percentile	$138,685

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$42
Senior-Level 90th Percentile	$67

Annual Job Openings

273 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.73%
A Bachelor's degree	82.73%
A Master's or Professional degree	16.54%
A Doctoral degree or more	0.00%

99.27% continue their education beyond an associate degree

Library Technical Assistant, Associate in Applied Science

College(s): WR*

Program Code: 0303

*This program is no longer accepting new students

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Additional General Education Courses [1,2]		15
Required Program Core		
LIB TEC 101	Intro To Library Procedures	3
LIB TEC 102	Multi-Media Technologies	3
LIB TEC 201	Library Public Service	3
LIB TEC 203	Materials Preparation Procedures	3
CIS 120	Introduction to Computer Applications	3
CIS 158	Web Development I	3
Required Work-Based Learning Courses		
LIB TEC 125	Learning Resource/Library Practicum	6
Program Electives		
Students should meet with a College Advisor for selection of elective courses.		18
Total Hours		**60**

1 Select an additional 15 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social and Behavioral Sciences, or Physical Sciences & Life Sciences.

2 At least one course must meet the Human Diversity (HD) requirement

Mammography, Basic Certificate

College(s): MX

Program Code: 0431

The Mammography Program provides licensed radiologic technologists with the opportunity to develop discipline-specific knowledge and skills to meet the Mammography Quality Standards Act guidelines and to become certified by the American Registry of Radiologic Technologists as a diagnostic mammography technologist.

For more information on the Mammography Program at Malcolm X College, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Mammography-Technology.aspx).

Program Requirements

Code	Title	Hours
Required Program Core		
RADIOGR 261	Patient Care and Pathology	1
RADIOGR 262	Anatomy, Physiology and Procedures	2
RADIOGR 263	Imaging Production and QA	1
RADIOGR 265	Mammography Clinical Education	5
Total Hours		**9**

Program Admission Requirements

Technical Standards for Acceptance

- ARRT certification
- BLS certification
- IEMA license

To participate in the clinical education portion of the Mammography Program, the student must possess additional nonacademic skills. These technical standards are consistent with the duties of the entry-level Mammographer in a professional position. The applicant should have the ability to:

- Move, adjust and position patients for mammography exams
- Move, adjust and manipulate equipment to perform mammographic procedures
- Possess visual acuity to review and evaluate images to determine image quality
- Communicate clearly, both orally and in writing, with patients, doctors and other personnel, and have the ability to follow written and verbal directions

To learn more about the Mammography Program at Malcolm X College, including the application process, visit the program website (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Mammography-Technology.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Radiologic Technologists and Technicians

Job Description

Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes. Includes radiologic technologists and technicians who specialize in other scanning modalities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$64,269
Median 50th Percentile	$84,643
Senior-Level 90th Percentile	$111,870

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$41
Senior-Level 90th Percentile	$54

Annual Job Openings

172 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	16.52%
Some college	0.00%
An Associate degree	72.85%
A Bachelor's degree	10.63%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.63% continue their education beyond an associate degree

Management/Marketing, Basic Certificate

College(s): DA*, HW*, KK*, OH*, TR*, WR*

Program Code: 0023

**Beginning Summer 2016, this program is no longer accepting new students at DA, HW, KK, MX, OH, or WR. Please refer to CCC's other Business offerings.*

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
Select one of the following:		3
BUSINES 141	Business Mathematics	
MATH 118	General Education Math (or higher Mathematics)	
Select a minimum of 9 credit hours of the following:		9
BUSINES 231	Marketing	
BUSINES 236	Advertising	
BUSINES 237	Selling	
BUSINES 258	Small Business	
BUSINES 269	Principles Of Management	
Select one of the following:		3
ENGLISH 101	Composition	
SPEECH 101	Fundamentals of Speech Communication	
SPEECH 160	Business & Professional Speech	
Total Hours		**18**

Management/Marketing, Advanced Certificate

College(s): HW*, KK*, OH*, TR*, WR*

Program Code: 0022

*Beginning Summer 2016, this program is no longer accepting new students. Please refer to CCC's other Business offerings.

Program Requirements

Code	Title	Hours
Required Program Core		
Select one of the following:		3
BUSINES 141	Business Mathematics	
MATH 118	General Education Math (or higher Mathematics)	
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
Select one of the following:		3
BUSINES 211	Business Law I	
BUSINES 212	Business Law II	
BUSINES 214	The Legal & Social Environment of Business	
BUSINES 231	Marketing	3
BUSINES 241	Introduction To Finance	3
BUSINES 269	Principles Of Management	3
CIS 120	Introduction to Computer Applications	3
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Total Hours		**35**

CITY COLLEGES OF CHICAGO

Management/Marketing, Associate in Applied Science

College(s): DA, HW, KK, OH, TR, WR

Program Code: 0021

The Associate in Applied Science degree program in Management/ Marketing is the study of basic business skills along with more in-depth study in a chosen field such as management, marketing, or entrepreneurship. Completion of the program can lead to employment as assistant, trainee, supervisor, or manager in manufacturing, merchandising, service firms, or government service. The program also prepares graduates to start a business or improve the operations of a business that currently exists.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Fine Arts and Humanities course		3
Mathematics or Physical Sciences or Life Sciences course		3
Social and Behavioral Sciences courses		3
Required Program Core		
Select one of the following:		3
BUSINES 141	Business Mathematics	
MATH 118	General Education Math (or higher Mathematics)	
SOC 201	Intro To the Study Of Society	3
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 231	Marketing	3
BUSINES 269	Principles Of Management	3
Select one of the following:		3
BUSINES 211	Business Law I	
BUSINES 212	Business Law II	
BUSINES 214	The Legal & Social Environment of Business	
Program Electives		
Select eight of the following:		24
COOP EX 105	Business Technologies CWE	
COOP EX 205	Business Technologies CWE	
BUSINES 161	Prin Of Bank Operations	
BUSINES 180	Fundamentals Of Accounting	
BUSINES 182	Managerial Accounting	
BUSINES 183	Payroll Accounting	
BUSINES 203	Intro Cost Accounting	
BUSINES 204	Computer Applications Intermediate Accounting	
BUSINES 206	Auditing	
BUSINES 208	Federal Income Tax	
BUSINES 213	Data Visualization and Presentation for Business	
BUSINES 216	Entrepreneurship	
BUSINES 221	Insurance	
BUSINES 232	Fundamentals of International Business	
BUSINES 237	Selling	
BUSINES 241	Introduction To Finance	
BUSINES 250	Computerized Accounting Systems	
BUSINES 263	Property and Liability Insurance	
BUSINES 264	Personal Insurance	
BUSINES 265	Commercial Insurance	
BUSINES 271	Human Resources Management	

BUSINES 272	Sales Management
BUSINES 273	Organizational Behavior
BUSINES 278	Compensation & Benefits Administration
BUSINES 279	Human Resources Planning & Staffing
BUSINES 281	Corporate Organizations: Understanding Business Processes
BUSINES 284	Business Communications
BUSINES 291	Leadership
CIS 101	Computer Science 101
CIS 111	Computer Operations
CIS 116	Operating System I
CIS 120	Introduction to Computer Applications
CIS 123	Microcomputer Spreadsheets
CIS 145	Database Management
CIS 158	Web Development I
COMPSFI 102	Information Security Essentials
COMPSFI 231	Internetworking Security
NET TEC 101	Client-Server Database I
NET TEC 121	Internetworking I
NET TEC 122	Internetworking II
Total Hours	**61**

[1] At least one course must meet the Human Diversity (HD) requirement.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

General and Operations Managers

Job Description

Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes First-Line Supervisors.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$51,471
Median 50th Percentile	$112,114
Senior-Level 90th Percentile	$269,297

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$54
Senior-Level 90th Percentile	$129

Annual Job Openings

5959 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	39.11%
A certificate	5.72%
Some college	21.59%
An Associate degree	5.99%
A Bachelor's degree	27.44%
A Master's or Professional degree	0.15%
A Doctoral degree or more	0.00%

27.59% continue their education beyond an associate degree

First-Line Supervisors of Non-Retail Sales Workers

Job Description

Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,234
Median 50th Percentile	$71,733
Senior-Level 90th Percentile	$164,607

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$34
Senior-Level 90th Percentile	$79

Annual Job Openings

252 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	16.00%
A certificate	0.00%
Some college	16.49%
An Associate degree	9.58%
A Bachelor's degree	44.97%
A Master's or Professional degree	12.96%
A Doctoral degree or more	0.00%

57.93% continue their education beyond an associate degree

Advertising and Promotions Managers

Job Description

Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or giveaways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,394
Median 50th Percentile	$120,637
Senior-Level 90th Percentile	$306,467

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$58
Senior-Level 90th Percentile	$147

Annual Job Openings

22 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	15.98%
A certificate	0.00%
Some college	7.67%
An Associate degree	8.04%
A Bachelor's degree	62.44%
A Master's or Professional degree	5.87%
A Doctoral degree or more	0.00%

68.31% continue their education beyond an associate degree

Sales Managers

Job Description

Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$80,857
Median 50th Percentile	$152,168
Senior-Level 90th Percentile	$295,679

Hourly Wages

Entry-Level 10th Percentile	$39
Median 50th Percentile	$73
Senior-Level 90th Percentile	$142

Annual Job Openings

1010 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	4.35%
An Associate degree	13.04%
A Bachelor's degree	73.92%
A Master's or Professional degree	8.70%
A Doctoral degree or more	0.00%

82.62% continue their education beyond an associate degree

Market Research Analysts and Marketing Specialists

Job Description

Research conditions in local, regional, national, or online markets. Gather information to determine potential sales of a product or service, or plan a marketing or advertising campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution. May employ search marketing tactics, analyze web metrics, and develop recommendations to increase search engine ranking and visibility to target markets.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,386
Median 50th Percentile	$78,791
Senior-Level 90th Percentile	$148,294

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$38
Senior-Level 90th Percentile	$71

Annual Job Openings

1896 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	60.87%
A Master's or Professional degree	39.13%
A Doctoral degree or more	0.00%

100.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Manufacturing Technology, Basic Certificate

College(s): DA, WR

Program Code: 0446

This is an entry level certificate that all Applied Engineering students will proceed through prior to pursuing specific focus areas. This program will give the student a broad overview and introduction to the technologies and processes in manufacturing. Studies include, robotics, fluid power, industrial electricity and controls, welding theory, CNC (computer numerical control) theory, CAD (Computer Aided Design) and Rapid Prototyping (maker spaces). Students will learn safety, math and material science while learning about the manufacturing technologies in this program

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
Total Hours		**12**

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate (BC) in Manufacturing Technology. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
	Hours	**12**
	Total Hours	**12**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Cutting and Slicing Machine Setters, Operators, and Tenders

Job Description

Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$46,128
Median 50th Percentile	$56,204
Senior-Level 90th Percentile	$67,889

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$27
Senior-Level 90th Percentile	$33

Annual Job Openings

47 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	93.50%
A certificate	4.91%
Some college	1.29%
An Associate degree	0.00%
A Bachelor's degree	0.29%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.29% continue their education beyond an associate degree

Forging Machine Setters, Operators, and Tenders, Metal and Plastic

Job Description

Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,067
Median 50th Percentile	$46,891
Senior-Level 90th Percentile	$56,961

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$23
Senior-Level 90th Percentile	$27

Annual Job Openings

7 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	100.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Team Assemblers

Job Description

Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them, rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,414
Median 50th Percentile	$41,090
Senior-Level 90th Percentile	$61,966

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$20
Senior-Level 90th Percentile	$30

Annual Job Openings

2606 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	85.25%
A certificate	0.47%
Some college	6.61%
An Associate degree	0.94%
A Bachelor's degree	6.74%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

6.74% continue their education beyond an associate degree

Electrical and Electronic Equipment Assemblers

Job Description

Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,265
Median 50th Percentile	$40,073
Senior-Level 90th Percentile	$59,944

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$19
Senior-Level 90th Percentile	$29

Annual Job Openings

537 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	80.15%
A certificate	8.20%
Some college	11.65%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Electromechanical Equipment Assemblers

Job Description

Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,265
Median 50th Percentile	$40,073
Senior-Level 90th Percentile	$59,944

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$19
Senior-Level 90th Percentile	$29

Annual Job Openings

537 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	52.73%
A certificate	10.77%
Some college	16.88%
An Associate degree	19.04%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.58%

0.58% continue their education beyond an associate degree

Manufacturing Technology, Associate in Applied Science

College(s): DA

Program Code: 0770

**As of Summer 2021, this program is not accepting new students. Please refer to CCC's other* Manufacturing *(*https://catalog.ccc.edu/programs/#filter=filter_24*)offerings.*

Program Requirements

Code	Title	Hours
General Education		
ENGLISH 101	Composition	3
MATH 125	Introductory Statistics	4
Fine Arts & Humanities		3
Social and Behavioral Sciences		3
Fine Arts & Humanities or Social and Behavioral Sciences		3
Required Program Core		
340MFGT 138	Intro to Solidworks	3
340MFGT 139	Print Requirements-Quality Assurance	3
340MFGT 141	Manufacturing Materials & Processes	3
340MFGT 191	Industrial Electricity	4
340MFGT 292	Principles of Mechanisms	3
Program Electives		
Select 30 credit hours of program electives (p. 341)		30
Total Hours		**62**

Program Electives

Code	Title	Hours
340MFGT 104	Statistical Process Control	3
340MFGT 111	Machining Processes I	3
340MFGT 112	Machining Processes II	3
340MFGT 123	CNC Milling Operations & Programming	3
340MFGT 137	CNC Turning Operations & Programming	3
340MFGT 140	CNC Fundamentals	3
340MFGT 142	Geometric Dimensioning and Tolerancing	3
340MFGT 143	Advanced Metrology	3
340MFGT 144	Wire Electrical Discharge Machining	3
340MFGT 207	Introduction to MASTERCAM	3
340MFGT 145	Computer Integrated Manufacturing (CIM)	3
340MFGT 151	Introduction to Welding	3
340MFGT 152	Intermediate Welding	3
340MFGT 253	Pneumatics	3
340MFGT 255	Industrial Hydraulics	3
340MFGT 291	Programmable Logic Controllers	3
340MFGT 295	Electrical Motor Controls	3
BUSINES 111	Introduction To Business	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 237	Selling	3
BUSINES 269	Principles Of Management	3
BUSINES 274	Industrial Management	3
INTDSP 102	Career Development and Decision Making	3

At least one course must meet the Human Diversity (HD) requirement.

Master Builder, Advanced Certificate

College(s): KK

Program Code: 0527

The Master Builder Advanced Certificate program at Dawson Technical Institute (DTI) equips students with a comprehensive skillset in carpentry, masonry, and plumbing, paving the way for lucrative and fulfilling careers in the construction industry. This innovative program integrates theoretical knowledge with hands-on training, preparing graduates for success in various construction-related roles.

Program Requirements

Code	Title	Hours
Required Program Core		
332TECH 410	Interior Construction I	4
332TECH 428	Mortar	3
332TECH 429	Basic Math & Specifications	2
332TECH 430	Masonry Installations Procedures	3
332TECH 432	Basic Arc Welding	2
332TECH 434	Introduction To Plumbing	3
332TECH 436	Plumbing Codes	1
332TECH 438	Intro To Fire Protection	3
332TECH 439	Home Plumbing System	4
332TECH 440	Introduction to Construction Masonry	4
332TECH 449	Professional Development	2
332TECH 452	Basic Electrical Theory	3
332TECH 472	Vocational Physical Training	2
332TECH 581	Concrete Framing	2
332TECH 582	Residential Carpentry	2
432CMGT 604	Blueprint and Specifications	3
432CMGT 609	Construction Safety II	3
332TECH 715	Intro to Hand and Power Tools	1
CIS 120	Introduction to Computer Applications	3
Total Hours		**50**

Pathway

This is an example course sequence for students interested in pursuing Master Builder. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn an Advanced Certificate (AC) in Master Builder.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
Phase I		
332TECH 429	Basic Math & Specifications	2
332TECH 434	Introduction To Plumbing	3
332TECH 440	Introduction to Construction Masonry	4
332TECH 715	Intro to Hand and Power Tools	1
432CMGT 609	Construction Safety II	3
Phase II		
332TECH 432	Basic Arc Welding	2
332TECH 452	Basic Electrical Theory	3
332TECH 581	Concrete Framing	2
432CMGT 604	Blueprint and Specifications	3
CIS 120	Introduction to Computer Applications	3
	Hours	**26**
Semester 2		
Phase III		
332TECH 410	Interior Construction I	4
332TECH 430	Masonry Installations Procedures	3
332TECH 436	Plumbing Codes	1
332TECH 472	Vocational Physical Training	2
332TECH 582	Residential Carpentry	2
Phase IV		
332TECH 428	Mortar	3

332TECH 438	Intro To Fire Protection	3
332TECH 439	Home Plumbing System	4
332TECH 449	Professional Development	2
	Hours	**24**
	Total Hours	**50**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Carpenters

Job Description

Help carpenters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,913
Median 50th Percentile	$42,156
Senior-Level 90th Percentile	$68,548

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$20
Senior-Level 90th Percentile	$33

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	78.94%
A certificate	3.10%
Some college	17.96%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

Job Description

Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,882
Median 50th Percentile	$46,753
Senior-Level 90th Percentile	$69,165

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$33

Annual Job Openings

34 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	54.29%
A certificate	26.83%
Some college	9.18%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	9.69%
A Doctoral degree or more	0.00%

9.69% continue their education beyond an associate degree

Cement Masons and Concrete Finishers

Job Description

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align

forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,748
Median 50th Percentile	$78,515
Senior-Level 90th Percentile	$109,118

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$38
Senior-Level 90th Percentile	$52

Annual Job Openings

127 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	86.72%
A certificate	12.65%
Some college	0.00%
An Associate degree	0.62%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Mechatronics Engineering Technology, Advanced Certificate

College(s): DA

Program Code: 0452

This Advanced Certificate is for those students looking to work within industrial maintenance, the field of automation and with robotics and PLCs (Programmable Logic Controls). Students will study mechanical skills necessary for repairing, installing and modifying industrial mechatronic systems and practice these skills in the hands on labs for PLCs, robotics, mechanisms and automation. Mechatronic skills are desired by manufacturers for roles in automating and maintaining production systems. Companies are looking for employees with these skills in the automated warehouse, automotive assembly and various automated manufacturing industries.

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
or 340MFGT 19	Manual Machining II	
340MFGT 188	Industrial Electricity I	3
340MFGT 189	Industrial Electricity II - Motors	3
340MFGT 288	Industrial Electricity III - PLC's I	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing Mechatronics Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) in Mechatronics Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 188	Industrial Electricity I	3
340MFGT 189	Industrial Electricity II - Motors	3
340MFGT 288	Industrial Electricity III - PLC's I	3
	Hours	**15**
	Total Hours	**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Industrial Machinery Mechanics

Job Description

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,252
Median 50th Percentile	$71,791
Senior-Level 90th Percentile	$96,657

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$46

Annual Job Openings

273 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	39.09%
A certificate	47.22%
Some college	0.00%
An Associate degree	13.70%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Electro-Mechanical and Mechatronics Technologists and Technicians

Job Description

Operate, test, maintain, or adjust unmanned, automated, servomechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$60,823
Median 50th Percentile	$76,822
Senior-Level 90th Percentile	$98,990

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$37
Senior-Level 90th Percentile	$48

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.83%
A certificate	31.72%
Some college	7.33%
An Associate degree	29.83%
A Bachelor's degree	10.97%
A Master's or Professional degree	5.59%
A Doctoral degree or more	3.72%

20.28% continue their education beyond an associate degree

Robotics Technicians

Job Description

Build, install, test, or maintain robotic equipment or related automated production systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$60,823
Median 50th Percentile	$76,822
Senior-Level 90th Percentile	$98,990

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$37
Senior-Level 90th Percentile	$48

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	9.09%
A certificate	22.73%
Some college	0.00%
An Associate degree	45.45%
A Bachelor's degree	22.73%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

22.73% continue their education beyond an associate degree

Electrical and Electronics Repairers, Commercial and Industrial Equipment

Job Description

Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,585
Median 50th Percentile	$59,909
Senior-Level 90th Percentile	$108,785

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$29
Senior-Level 90th Percentile	$52

Annual Job Openings

29 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	22.02%
A certificate	32.27%
Some college	0.00%
An Associate degree	45.71%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Mechatronics Engineering Technology, Associate in Applied Science

College(s): DA

Program Code: 0453

The Mechatronics Engineering Technology Associate in Applied Science degree is for those students looking to work within industrial maintenance, the field of automation and with robotics and PLCs (Programmable Logic Controls). Students will study mechanical skills necessary for repairing, installing and modifying industrial mechatronic systems and practice these skills in the hands on labs for PLCs, robotics, mechanisms and automation.#Mechatronic skills are desired by manufacturers for roles in automating and maintaining production systems.#Companies are looking for employees with these skills in the automated warehouse, automotive assembly and various automated manufacturing industries. Industrial Maintenance technicians are needed in every manufacturing production facility to maintain, repair and install the equipment utilized in the production processes manufacturing companies utilize. In addition to careers in industry, students are able to continue their studies in Bachelor's degree programs if desired.

Program Requirements

Code	Title	Hours
General Education Requirements [1]		
MATH 140	College Algebra	4
ENGLISH 101	Composition	3
Social and Behavioral Sciences		3
Fine Arts/Humanities		3
Physical Sciences/Life Sciences		3
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
or 340MFGT 19	Manual Machining II	
340MFGT 188	Industrial Electricity I	3
340MFGT 189	Industrial Electricity II - Motors	3
340MFGT 208	ROBOTICS II - ROBOTC INTEGRATION	3
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 287	Maintenance Technologies I	3
340MFGT 288	Industrial Electricity III - PLC's I	3
340MFGT 289	INDUSTRIAL ELECTRICITY IV - PLC'S II	3
340MFGT 290	Process Technology I	3
Total Hours		**61**

[1] At least one course must meet the Human Diversity (HD) (p. 605) requirement.

Pathway

This is an **example course sequence** for students interested in pursuing Mechatronics Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology, and an Advanced Certificate (AC) and Associate in Applied Science (AAS) in Mechatronics Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 188	Industrial Electricity I	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153 or 340MFGT 195	Welding I GMAW or Manual Machining II	3
340MFGT 189	Industrial Electricity II - Motors	3
ENGLISH 101	Composition [1]	3
	Hours	**15**
Semester 3		
340MFGT 209	Computer Aided Manufacturing (CAM) I	3
340MFGT 288	Industrial Electricity III - PLC's I	3
340MFGT 290	Process Technology I	3
Social and Behavioral Sciences course (HD) [1]		3
MATH 140	College Algebra [1]	4
	Hours	**16**
Semester 4		
340MFGT 208	ROBOTICS II - ROBOTC INTEGRATION	3
340MFGT 287	Maintenance Technologies I	3
340MFGT 289	INDUSTRIAL ELECTRICITY IV - PLC'S II	3
Fine Arts/Humanities course (HD) [1]		3
Physical Sciences/Life Sciences course [1]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education course

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Industrial Machinery Mechanics

Job Description

Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,252
Median 50th Percentile	$71,791
Senior-Level 90th Percentile	$96,657

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$46

Annual Job Openings

273 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	39.09%
A certificate	47.22%
Some college	0.00%
An Associate degree	13.70%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Electro-Mechanical and Mechatronics Technologists and Technicians

Job Description

Operate, test, maintain, or adjust unmanned, automated, servomechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$60,823
Median 50th Percentile	$76,822
Senior-Level 90th Percentile	$98,990

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$37
Senior-Level 90th Percentile	$48

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.83%
A certificate	31.72%
Some college	7.33%
An Associate degree	29.83%
A Bachelor's degree	10.97%
A Master's or Professional degree	5.59%
A Doctoral degree or more	3.72%

20.28% continue their education beyond an associate degree

Robotics Technicians

Job Description

Build, install, test, or maintain robotic equipment or related automated production systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$60,823
Median 50th Percentile	$76,822
Senior-Level 90th Percentile	$98,990

Hourly Wages

Entry-Level 10th Percentile	$29
Median 50th Percentile	$37
Senior-Level 90th Percentile	$48

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	9.09%
A certificate	22.73%
Some college	0.00%
An Associate degree	45.45%
A Bachelor's degree	22.73%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

22.73% continue their education beyond an associate degree

Electrical and Electronics Repairers, Commercial and Industrial Equipment

Job Description

Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,585
Median 50th Percentile	$59,909
Senior-Level 90th Percentile	$108,785

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$29
Senior-Level 90th Percentile	$52

Annual Job Openings

29 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	22.02%
A certificate	32.27%
Some college	0.00%
An Associate degree	45.71%
A Bachelor's degree	0.00%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Industrial Engineering Technologists and Technicians

Job Description

Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,636
Median 50th Percentile	$73,382
Senior-Level 90th Percentile	$100,742

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$48

Annual Job Openings

67 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	21.64%
A certificate	1.25%
Some college	36.92%
An Associate degree	25.54%
A Bachelor's degree	14.65%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

14.65% continue their education beyond an associate degree

Media Communications, Associate in Applied Science

College(s): KK

Program Code: 0083

The Associate in Applied Science degree program in Media Communications is a modification and extension of the former Radio and TV Broadcasting Program. Students may choose specialized courses that qualify them in the following areas:

1. Audio/Video/Internet Production (AVIP), which include Television;
2. Radio Production/Broadcasting;
3. Media Sales and Marketing; and
4. Interactive Media Design.

All areas emphasize the use of technology, including computers. Therefore, computer literacy is required for successful completion of this program. The program prepares graduates for entry level positions in related fields and for possible transfer to a four-year institution.

In the **Audio/Video/Internet Production (AVIP)** specialty area, you will learn to create short video and audio projects and learn all facets of video and audio production from program design (pre-production), and hands-on recording (production) through the editing process (post-production). You will take courses in web-casting and streaming media using state-of-the-art digital technology, facilities, and instruction.
By the end of the program, you will have basic knowledge of lighting, camera operation, storyboarding and basic scripting, editing, sound, and producing techniques. Students will assume roles as producers, directors, camera operators and video editors. Pre- and post-production, scripting, graphics, lighting, legal requirements, and nonlinear video editing skills will be emphasized.

The **Radio Production/Broadcasting** course of study provides a comprehensive overview of the Media Communications industry with a focus in radio. The program provides a real world, hands-on overview of the art and business of radio broadcasting, while developing in-depth knowledge and skills regarding the total operation of a radio station, including the history of radio broadcasting from its inception to the latest radio technology. The program will train students in the areas of on-air talent, production, programming, or business, which includes radio marketing, promotions, and sales.

Program Requirements - Audio/Video/Internet Production (AVIP) Track

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher Mathematics)	3
Fine Arts & Humanities course		3
Select six additional credit hours of IAI approved courses in addition to the above courses		6
Required Program Core		
MEDIACM 145	Intro To Media Communication	3
MEDIACM 203	Media Writing	3
MEDIACM 223	Advanced Broadcast Writing	3
MEDIACM 265	Digital Media Entrepreneurship	3
MEDIACM 271	Intro to Interactive Media	3
MEDIACM 298	Audio, Video or Internet Capstone	3
Required Specialty Courses		
MEDIACM 231	TV Production I	3
MEDIACM 232	TV Production II	3

MEDIACM 240	Minicam & Videotape Editing	3
MEDIACM 250	Mini-Cam & Video Editing II	3
MEDIACM 280	Advanced Editing, Graphics, and Animation	3
DMD 115	Digital Audio	3
COM DSGN 102	Website Design I	3
Required Work-Based Learning Courses		
MEDIACM 295	Practicum Internship	3
Program Electives		
Select a minimum of 3 credit hours of the following recommended courses or others as suggested by a College Advisor:		3
MEDIACM 102	Announcing	
MEDIACM 234	Producing for Television	
MEDIACM 245	Advanced Production Workshop	
COM DSGN 104	Digital Photography	
COM DSGN 202	Website Design II	
Total Hours		**60**

[1] One course must fulfill the Human Diversity (HD) requirement

Program Requirements - Radio Production/Broadcasting Track

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher Mathematics)	3
Fine Arts & Humanities course		3
Select six additional credit hours of IAI approved courses in addition to the above courses		6
Required Program Core		
MEDIACM 145	Intro To Media Communication	3
MEDIACM 203	Media Writing	3
MEDIACM 223	Advanced Broadcast Writing	3
MEDIACM 265	Digital Media Entrepreneurship	3
MEDIACM 271	Intro to Interactive Media	3
MEDIACM 298	Audio, Video or Internet Capstone	3
Required Specialty Courses		
MEDIACM 102	Announcing	3
MEDIACM 221	Radio Production I	3
MEDIACM 222	Radio Production II	3
MEDIACM 245	Advanced Production Workshop	3
MEDIACM 252	Audio Engineering I	3
DMD 115	Digital Audio	3
SPEECH 101	Fundamentals of Speech Communication	3
Required Work-Based Learning Courses		
MEDIACM 295	Practicum Internship	3
Program Electives		
Select a minimum of 3 credit hours of the following recommended courses or others as suggested by a College Advisor:		3
COM DSGN 104	Digital Photography	
ENGLISH 105	Business Writing	
ENGLISH 107	Report Writing	
SPEECH 160	Business & Professional Speech	
Total Hours		**60**

[1] One course must fulfill the Human Diversity (HD) requirement

Semester-by-Semester Program Plan for Full-Time Students - AVIP Track

This is an **example course sequence** for students interested in earning a degree in Media Communications: Audio/Video/Internet/Production (AVIP). If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree in Media Communications. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MEDIACM 145	Intro To Media Communication	3
MEDIACM 203	Media Writing	3
MEDIACM 231	TV Production I	3
MEDIACM 240	Minicam & Videotape Editing	3
	Hours	**15**
Semester 2		
Social and Behavioral Sciences course [1]		3
DMD 115	Digital Audio	3
MEDIACM 223	Advanced Broadcast Writing	3
MEDIACM 232	TV Production II	3
MEDIACM 250	Mini-Cam & Video Editing II	3
	Hours	**15**
Semester 3		
MATH 118	General Education Math [1]	4
MEDIACM 271	Intro to Interactive Media	3
MEDIACM 280	Advanced Editing, Graphics, and Animation	3
MEDIACM 295	Practicum Internship	3
COM DSGN 102	Website Design I	3
	Hours	**16**
Semester 4		
MEDIACM 265	Digital Media Entrepreneurship	3
MEDIACM 298	Audio, Video or Internet Capstone	3
Fine Arts & Humanities course [1]		3
Human Diversity (HD) course [1]		3
Program Elective (p. 354) [2]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education Requirement
[2] Program Elective (p. 354)

Program Electives

Code	Title	Hours
MEDIACM 102	Announcing	3
MEDIACM 234	Producing for Television	3
MEDIACM 245	Advanced Production Workshop	3
COM DSGN 104	Digital Photography	3
COM DSGN 202	Website Design II	3

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Full-Time Students - Radio Production/Broadcasting Track

This is an **example course sequence** for students interested in earning a degree in Media Communications: Radio Production and Broadcasting. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree in Media Communications. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MEDIACM 102	Announcing	3
MEDIACM 145	Intro To Media Communication	3
MEDIACM 203	Media Writing	3
MEDIACM 221	Radio Production I	3
	Hours	**15**
Semester 2		
MATH 118	General Education Math [1]	4
MEDIACM 222	Radio Production II	3
MEDIACM 223	Advanced Broadcast Writing	3
DMD 115	Digital Audio	3
Human Diversity (HD) course [1]		3
	Hours	**16**
Semester 3		
MEDIACM 271	Intro to Interactive Media	3
MEDIACM 245	Advanced Production Workshop	3
MEDIACM 252	Audio Engineering I	3
Fine Arts & Humanities course [1]		
SPEECH 101	Fundamentals of Speech Communication	3
	Hours	**12**
Semester 4		
MEDIACM 265	Digital Media Entrepreneurship	3
MEDIACM 295	Practicum Internship	3
MEDIACM 298	Audio, Video or Internet Capstone	3
Social and Behavioral Sciences course [1]		3
Program Elective (p. 354) [2]		3
	Hours	**15**
	Total Hours	**58**

1 General Education Requirement
2 Program Elective (p. 355)

PROGRAM ELECTIVES

Code	Title	Hours
ENGLISH 105	Business Writing	3
ENGLISH 107	Report Writing	1-3
SPEECH 160	Business & Professional Speech	3
COM DSGN 104	Digital Photography	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Producers and Directors

Job Description

Produce or direct stage, television, radio, video, or film productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,394
Median 50th Percentile	$74,222
Senior-Level 90th Percentile	$160,875

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$36
Senior-Level 90th Percentile	$77

Annual Job Openings

229 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	15.22%
A certificate	10.58%
Some college	4.61%
An Associate degree	12.89%
A Bachelor's degree	56.67%
A Master's or Professional degree	0.04%
A Doctoral degree or more	0.00%

56.71% continue their education beyond an associate degree

Film and Video Editors

Job Description

Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$21,842
Median 50th Percentile	$50,355
Senior-Level 90th Percentile	$124,013

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$24
Senior-Level 90th Percentile	$60

Annual Job Openings

64 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	16.28%
A certificate	0.00%
Some college	1.18%
An Associate degree	16.85%
A Bachelor's degree	65.10%
A Master's or Professional degree	0.59%
A Doctoral degree or more	0.00%

65.69% continue their education beyond an associate degree

Broadcast Announcers and Radio Disc Jockeys

Job Description

Speak or read from scripted materials, such as news reports or commercial messages, on radio, television, or other communications media. May play and queue music, announce artist or title of performance, identify station, or interview guests.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,942
Median 50th Percentile	$47,370
Senior-Level 90th Percentile	$100,773

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$23
Senior-Level 90th Percentile	$48

Annual Job Openings

45 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	16.22%
A certificate	0.68%
Some college	10.14%
An Associate degree	10.10%
A Bachelor's degree	55.04%
A Master's or Professional degree	7.82%
A Doctoral degree or more	0.00%

62.86% continue their education beyond an associate degree

News Analysts, Reporters, and Journalists

Job Description

Narrate or write news stories, reviews, or commentary for print, broadcast, or other communications media such as newspapers, magazines, radio, or television. May collect and analyze information through interview, investigation, or observation.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,965
Median 50th Percentile	$60,333
Senior-Level 90th Percentile	$164,041

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$29
Senior-Level 90th Percentile	$79

Annual Job Openings

105 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	22.92%
A certificate	0.00%
Some college	6.52%
An Associate degree	0.00%
A Bachelor's degree	67.17%
A Master's or Professional degree	3.39%
A Doctoral degree or more	0.00%

70.56% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Medical Assisting, Advanced Certificate

College(s): MX

Program Code: 0421

The Advanced Certificate program in Medical Assisting prepares students to become multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures in a doctor's office, clinic, hospital, or other medical setting.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Medical Assisting program at Malcolm X College, visit the program website (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Medical-Assisting-Program.aspx).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology [1] Human Structure and Function I and Human Structure and Function II	4
BIOLOGY 120	Terminology For Medical Careers	3
MEDASST 102	Medical Law & Ethics	3
MEDASST 105	Medical Careers Professional Development	2
MEDASST 103	Medical Assisting Clinical Procedures I	3
MEDASST 104	Medical Assisting Clinical Procedures II	3
MEDASST 106	Administrative Procedures	3
MEDASST 107	Pharmacology	4
MEDASST 108	Fundamentals of Ambulatory Billing and Coding	3
Required Work-Based Learning Courses		
MEDASST 109	Medical Assisting Practicum	3
Total Hours		**31**

[1] Effective Spring 2024, BIOLOGY 226 & 227 can be used in place of BIOLOGY 116.

Pathways

These are **example course sequences** for students interested in medical assisting, one for full-time students and one for part-time students. If either pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Medical Assisting. This does not represent a contract, nor does it guarantee course availability.

The Advanced Certificate program for Medical Assisting prepares students to become multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures in a doctor's office, clinic, hospital, or other medical setting.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
Fall		
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	4
MEDASST 102	Medical Law & Ethics	3
MEDASST 103	Medical Assisting Clinical Procedures I	3
MEDASST 105	Medical Careers Professional Development	2
MEDASST 106	Administrative Procedures	3
	Hours	**15**
Semester 2		
Spring		
BIOLOGY 120	Terminology For Medical Careers	3

MEDASST 104	Medical Assisting Clinical Procedures II	3
MEDASST 107	Pharmacology	4
MEDASST 108	Fundamentals of Ambulatory Billing and Coding	3
	Hours	**13**
Semester 3		
Summer		
MEDASST 109	Medical Assisting Practicum	3
	Hours	**3**
	Total Hours	**31**

Semester-by-Semester Program Plan for Part-Time Students

Semester 1		**Hours**
Spring		
BIOLOGY 116	Introduction to Anatomy And Physiology	4
MEDASST 103	Medical Assisting Clinical Procedures I	3
MEDASST 106	Administrative Procedures	3
	Hours	**10**
Semester 2		
Summer		
BIOLOGY 120	Terminology For Medical Careers	3
MEDASST 104	Medical Assisting Clinical Procedures II	3
MEDASST 105	Medical Careers Professional Development	2
	Hours	**8**
Semester 3		
Fall		
MEDASST 102	Medical Law & Ethics	3
MEDASST 107	Pharmacology	4
MEDASST 108	Fundamentals of Ambulatory Billing and Coding	3
	Hours	**10**
Semester 4		
Spring		
MEDASST 109	Medical Assisting Practicum	3
	Hours	**3**
	Total Hours	**31**

[1] BIOLOGY 226 & 227 can substitute for this requirement, effective Spring 2024.

Choose your courses with your College Advisor.

Special Admission Requirements

To apply for the Medical Assisting program, students must:

- Be eligible for ENGLISH 101 Composition
- Be eligible for MATH 118 General Education Math (or higher)
- Submit official college transcripts from all accredited colleges attended outside of City Colleges to the Malcolm X College Office of Registrar Services
- Interview with the Program Director

For more information on admissions requirements and the application process, visit the program website (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Medical-Assisting-Program.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Medical Assistants

Job Description

Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,870
Median 50th Percentile	$45,298
Senior-Level 90th Percentile	$55,447

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$27

Annual Job Openings

1386 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	**% of Jobs**
A high school diploma or less	20.54%
A certificate	44.74%
Some college	17.20%
An Associate degree	0.05%
A Bachelor's degree	17.47%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

17.47% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Medical Billing, Basic Certificate

College(s): MX

Program Code: 0395

The Basic Certificate in Medical Billing is designed to provide students with the suitable education and hands-on skills necessary for entry-level positions as medical insurance billers for offices, clinics, billing services, and other facilities. Students will develop application skills for a variety of classification systems to code for reimbursement, databases and registries, and the maintenance of patients' medical and treatment histories. Students learn how to accurately process health insurance claims with an emphasis on all aspects of medical insurance including: plan options, payer requirements, state and federal regulations, abstracting of source documents, the accurate completion of claims, along with the coding of diagnoses and procedures/services. In addition, students acquire knowledge about major insurance programs, the healthcare delivery system in the United States, and federal healthcare legislation. The content of this program also includes the study of origin and purpose, along with content, order, analysis, use of medical records, methods of retrieving, numbering, and the retention of health information. The focus of the program is on correlating health information with billing procedures in different healthcare settings. After the completion of the Medical Billing Basic Certificate the students can seamlessly transfer all of their credits earned in the Medical Billing program and have an opportunity to continue their education in the Medical Coding Advanced Certificate program.

For more information on the Medical Billing program at Malcolm X College, visit the program website (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Medical-Billing.aspx).

Program Requirements

Code	Title	Hours
Required Program Core		
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	4
or BIOLOGY 226 & BIOLOGY 227	Human Structure and Function I and Human Structure and Function II	
CIS 120	Introduction to Computer Applications	3
HIT 101	Foundations of HIT	3
HIT 102	Medical Billing	4
HIT 110	Medical Terms for HIT Professionals	3
Total Hours		**17**

[1] Effective Spring 2024, BIOLOGY 226 & 227 may substitute for BIOLOGY 116

Pathway

This is an **example course sequence** for students interested in earning a degree in Health Information Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Medical Billing.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	4
CIS 120	Introduction to Computer Applications	3
HIT 101	Foundations of HIT	3
HIT 102	Medical Billing	4

HIT 110	Medical Terms for HIT Professionals	3
	Hours	**17**
	Total Hours	**17**

[1] BIOLOGY 226 & BIOLOGY 227 can substitute for this class, effective Spring 2024.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Medical Records Specialists

Job Description

Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Classify medical and healthcare concepts, including diagnosis, procedures, medical services, and equipment, into the healthcare industry's numerical coding system. Includes medical coders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,503
Median 50th Percentile	$52,231
Senior-Level 90th Percentile	$83,221

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$25
Senior-Level 90th Percentile	$40

Annual Job Openings

149 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	48.06%
A certificate	10.94%
Some college	20.57%
An Associate degree	19.93%
A Bachelor's degree	0.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.50% continue their education beyond an associate degree

Health Information Technologists and Medical Registrars

Job Description

Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification and analysis of computerized healthcare systems. Abstract, collect, and analyze treatment and followup information of patients. May educate staff and assist in problem solving to promote the implementation of the healthcare information system. May design, develop, test, and implement databases with complete history, diagnosis, treatment, and health status to help monitor diseases.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,722
Median 50th Percentile	$62,011
Senior-Level 90th Percentile	$113,833

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$30
Senior-Level 90th Percentile	$55

Annual Job Openings

24 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	48.06%
A certificate	10.94%
Some college	20.57%
An Associate degree	19.93%
A Bachelor's degree	0.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.50% continue their education beyond an associate degree

Medical Transcriptionists

Job Description

Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$27,965
Median 50th Percentile	$36,011
Senior-Level 90th Percentile	$55,957

Hourly Wages

Entry-Level 10th Percentile	$13
Median 50th Percentile	$17
Senior-Level 90th Percentile	$27

Annual Job Openings

124 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	16.73%
A certificate	38.89%
Some college	33.65%
An Associate degree	10.73%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Medical Coding, Advanced Certificate

College(s): MX

Program Code: 0394

The Advanced Certificate in Medical Coding is intended to provide the student with the necessary education and hands-on skills required for entry-level positions as medical coders for a variety of healthcare settings. The students learn ICD-10-CM/PCS and CPT/HCPCS Level II guidelines and apply them while coding various coding scenarios including inpatient records, outpatient visits, operative reports, and other healthcare records. Students utilize 3M encoder software in both basic and advanced coding courses in order to master their coding skills and smoothly transition to their entry-level healthcare careers. In addition, the students participate in the planned and supervised clinical affiliations in medical facilities. Our stackable degree path allows students to apply all credits earned in the Medical Billing Basic Certificate program to the Medical Coding Advanced Certificate program. Upon the completion of the Medical Coding Advanced Certificate, students can then pursue an Associate in Applied Science degree in Health Information Technology.

Note: In order to sit for the Medical Coding Certification exam, students must provide proof of high school completion or HSE.

For more information on the Medical Coding program at Malcolm X College, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Medical-Coding.aspx).

Program Requirements

Code	Title	Hours
Required Program Core		
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	4
or BIOLOGY 226 & BIOLOGY 227	Human Structure and Function I and Human Structure and Function II	
CIS 120	Introduction to Computer Applications	3
HIT 101	Foundations of HIT	3
HIT 102	Medical Billing	4
HIT 103	Basic ICD-10-CM/PCS Coding	3
HIT 104	Basic CPT Coding	3
HIT 105	Pharmacology for HIT Professionals	2
HIT 108	Advanced ICD-10-CM/PCS Coding	3
HIT 109	Advanced CPT Coding	3
HIT 110	Medical Terms for HIT Professionals	3
HIT 201	Fundamentals of Medical Science	3
HIT 203	Reimbursement Methodologies	3
Required Work-Based Learning Courses		
HIT 221	Professional Practice I	3
Total Hours		**40**

[1] Effective Spring 2024, BIOLOGY 226 & 227 may be taken in place of BIOLOGY 116.

Pathway

This is an **example course sequence** for students interested in earning a degree in Health Information Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Medical Billing and an Advanced Certificate (AC) in Medical Coding.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
BIOLOGY 116	Introduction to Anatomy And Physiology [1,2]	4
CIS 120	Introduction to Computer Applications [1]	3
HIT 101	Foundations of HIT [1]	3
HIT 102	Medical Billing [1]	4
HIT 110	Medical Terms for HIT Professionals [1]	3
	Hours	**17**
Semester 2		
HIT 103	Basic ICD-10-CM/PCS Coding	3
HIT 104	Basic CPT Coding	3
HIT 105	Pharmacology for HIT Professionals	2
HIT 201	Fundamentals of Medical Science	3
	Hours	**11**
Semester 3		
HIT 108	Advanced ICD-10-CM/PCS Coding	3
HIT 109	Advanced CPT Coding	3
HIT 203	Reimbursement Methodologies	3
HIT 221	Professional Practice I	3
	Hours	**12**
	Total Hours	**40**

1 Program prerequisites. Students earn the Medical Billing Basic Certificate (BC) after Semester 1 prior to applying for admission to the Medical Coding Advanced Certificate (AC).

2 BIOLOGY 226 Human Structure and Function I & BIOLOGY 227 Human Structure and Function II can substitute for this requirement, effective Spring 2024.

Choose your courses with your College Advisor.

Program Admission Requirements

- Completion of the Malcolm X College Medical Billing [BC] (p. 360).
- Currently enrolled in Malcolm X College Medical Billing program are eligible to apply.
- Submit official college transcripts from all colleges attended outside of City Colleges of Chicago to the Malcolm X College Office of Registrar Services.
- On-campus, in-person interview; this will occur in late October
- Submit one Letter of Recommendation at the interview
- Once accepted to the program and prior to registration; students must complete the following:
  - Background check
  - Drug screen
  - Provide proof of health insurance
  - Provide current immunization records
- Students need to have transportation to and from their clinical sites

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Medical Records Specialists

Job Description

Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Classify medical and healthcare concepts, including diagnosis, procedures, medical services, and equipment, into the healthcare industry's numerical coding system. Includes medical coders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,503
Median 50th Percentile	$52,231
Senior-Level 90th Percentile	$83,221

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$25
Senior-Level 90th Percentile	$40

Annual Job Openings

149 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	48.06%
A certificate	10.94%
Some college	20.57%
An Associate degree	19.93%
A Bachelor's degree	0.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.50% continue their education beyond an associate degree

Health Information Technologists and Medical Registrars

Job Description

Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification and analysis

of computerized healthcare systems. Abstract, collect, and analyze treatment and followup information of patients. May educate staff and assist in problem solving to promote the implementation of the healthcare information system. May design, develop, test, and implement databases with complete history, diagnosis, treatment, and health status to help monitor diseases.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,722
Median 50th Percentile	$62,011
Senior-Level 90th Percentile	$113,833

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$30
Senior-Level 90th Percentile	$55

Annual Job Openings

24 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	48.06%
A certificate	10.94%
Some college	20.57%
An Associate degree	19.93%
A Bachelor's degree	0.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.50% continue their education beyond an associate degree

Mortuary Science, Associate in Applied Science

College(s): MX

Program Code: 0257

The Associate in Applied Science degree program in Mortuary Science prepares students enrolled in the program with work-based experiences in how to embalm and restore human remains, arrange and conduct religious and humanistic funerals, memorial services, manage funeral home operations, sell funeral merchandise, assist grieving families, and assist members of the medical profession in areas related to human remains. Funeral home establishments may employ students prior to the state of Illinois required internship. The program is in compliance with the standards, guidelines, and curriculum of the American Board of Funeral Service Education (ABFSE), the Conference of Funeral Service Examining Boards (ICFSE), the City Colleges of Chicago (CCC), and the Illinois Department of Financial and Professional Regulations (IDFPR).

Program Learning Outcomes

The mission of an ABFSE-accredited program must be to educate students in every phase of funeral service so that program graduates are prepared for entry-level employment in funeral service. In support of this mission, a program must adopt at least the following Learning Outcomes:

Upon completion of an accredited program, students will be able to:

1. Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
2. Identify standards of ethical conduct in funeral service practice.
3. Interpret how federal, state, and local laws apply to funeral service in order to ensure compliance.
4. Apply principles of public health and safety in the handling and preparation of human remains.
5. Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
6. Demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies.
7. Describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains.
8. Describe methods to address the grief-related needs of the bereaved.
9. Explain management skills associated with operating a funeral establishment.
10. Demonstrate verbal and written communication skills and research skills needed for funeral service practice.

National Board Examination scores, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org (https://www.abfse.org/html/dir-il.html)

The Mortuary Science associate degree program at Malcolm X College is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747. Web: www.abfse.org *(*https://www.abfse.org/*).*

For additional accreditation specific information related to the program learning outcomes of the Mortuary Science program, please see the following link: www.ccc.edu/colleges/malcolm-x/departments/Pages/Mortuary-Science.aspx (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Mortuary-Science.aspx)

***This selective admissions program requires students to submit a separate application or to take additional action before enrolling*.**

Program Requirements

Code	Title	Hours
General Education Coursework (Program Prerequisites) [1]		
ENGLISH 101	Composition (or higher General Education English)	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math (or higher General Education Math course)	4
BIOLOGY 120	Terminology For Medical Careers	3
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology Human Structure and Function I and Human Structure and Function II	4
Required Program Core		
MOR SCI 117	History of Funeral Service	3
MOR SCI 118	Microbiology & Pathology for Embalmers	3
MOR SCI 119	Chemistry For Embalmers	3
MOR SCI 120	Social Science for Funeral Service	3
MOR SCI 121	Restorative Art	3
MOR SCI 122	Embalming Theory I	3
MOR SCI 123	Funeral Directing & Cremation	3
MOR SCI 124	Anatomy for Embalmers	3
MOR SCI 217	Business Communication	3
MOR SCI 218	Mortuary And Business Law	3
MOR SCI 219	Restorative Art Laboratory	3
MOR SCI 220	Embalming Theory II	3
MOR SCI 221	Funeral Management with Accounting	3
MOR SCI 222	Embalming Laboratory	2
MOR SCI 223	Funeral Merchandising	3
MOR SCI 224	Advanced Mortuary Practice Capstone	4
Total Hours		**65**

[1] At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in earning a degree in Mortuary Science. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree in Mortuary Science.

The Associate in Applied Science degree program in Mortuary Science prepares students enrolled in the program with work-based experiences in how to embalm and restore human remains, arrange and conduct religious and humanistic funerals, memorial services, manage funeral home operations, sell funeral merchandise, assist grieving families, and assist members of the medical profession in areas related to human remains. Funeral home establishments may employ students prior to the state of Illinois required internship. The program is in compliance with the standards, guidelines, and curriculum of the American Board of Funeral Service Education (ABFSE), the Conference of Funeral Service Examining Boards (ICFSE), the City Colleges of Chicago (CCC), and the Illinois Department of Financial and Professional Regulations (IDFPR).

For additional accreditation-specific information related to the program learning outcomes of the Mortuary Science program, please see the following link: https://www.ccc.edu/colleges/malcolm-x/programs/Pages/Mortuary-Science---Mission.aspx.

Prospective students must apply for admission into the Mortuary Science program.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
Prerequisites and General Education		
ENGLISH 101	Composition (or higher general education English course) [1,2]	3
MATH 118	General Education Math (or higher general education math course) [1, 2]	4
BIOLOGY 116	Introduction to Anatomy And Physiology [1,2,3]	4
	Hours	**11**
Semester 2		
Prerequisites and General Education		
SPEECH 101	Fundamentals of Speech Communication [1,2]	3
BIOLOGY 120	Terminology For Medical Careers [1,2]	3
	Hours	**6**

Semester 3		
MOR SCI 117	History of Funeral Service	3
MOR SCI 118	Microbiology & Pathology for Embalmers	3
MOR SCI 119	Chemistry For Embalmers	3
MOR SCI 120	Social Science for Funeral Service	3
	Hours	**12**
Semester 4		
MOR SCI 121	Restorative Art	3
MOR SCI 122	Embalming Theory I	3
MOR SCI 123	Funeral Directing & Cremation	3
MOR SCI 124	Anatomy for Embalmers	3
	Hours	**12**
Semester 5		
MOR SCI 217	Business Communication	3
MOR SCI 218	Mortuary And Business Law	3
MOR SCI 219	Restorative Art Laboratory	3
MOR SCI 220	Embalming Theory II	3
	Hours	**12**
Semester 6		
MOR SCI 221	Funeral Management with Accounting	3
MOR SCI 222	Embalming Laboratory	2
MOR SCI 223	Funeral Merchandising	3
MOR SCI 224	Advanced Mortuary Practice Capstone	4
	Hours	**12**
	Total Hours	**65**

[1] Program Prerequisite
[2] General Education Requirement
[3] BIOLOGY 226 & BIOLOGY 227 can substitute for this.

Choose your courses with your College Advisor.

Program Admission Requirements

- Be at least 18 years of age.
- Official high school transcripts or General Education Certificate (GED) showing date of graduation or completion date (as applicable) for first-time college enrollment.
- Completion of 17 hours of prerequisites:

Code	Title	Hours
ENGLISH 101	Composition (or higher gen ed English course) [1]	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math (or higher gen ed math course) [1]	4
BIOLOGY 120	Terminology For Medical Careers	3
BIOLOGY 116	Introduction to Anatomy And Physiology	4
or BIOLOGY 226 & BIOLOGY 227	Human Structure and Function I and Human Structure and Function II	
Total Hours		**17**

[1] "or higher" added to requirement effective Spring 2024

- Grade C or better in all prerequisite courses.
- Submission of completed application to the Mortuary Science Program
- Transfer status is not a guaranteed acceptance. Malcolm X College admissions performs transcript evaluations at the request of the student. Transcript evaluation forms are available at the Office of Admissions and Student Records on campus.
- Official college transcripts from all institutions attended.
- Grade Point Average must be at least "C" (GPA 2.75)
- BIOLOGY 116 Introduction to Anatomy And Physiology (or BIOLOGY 226 Human Structure and Function I and BIOLOGY 227 Human Structure and Function II) general education courses for transferability must have been completed within five years of admission. If more than five years, these courses must be audited or successfully tested out through program assessment. All courses strictly in Mortuary Science must be taken in the program. Transfer students must submit a full application packet and meet with Program Director.
- Completion of all prerequisite electives and general education courses

For more information on the application process for the Mortuary Science program, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/programs/Pages/Mortuary-Science---Admissions.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Morticians, Undertakers, and Funeral Arrangers

Job Description

Perform various tasks to arrange and direct individual funeral services, such as coordinating transportation of body to mortuary, interviewing family or other authorized person to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,236
Median 50th Percentile	$59,896
Senior-Level 90th Percentile	$126,450

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$29
Senior-Level 90th Percentile	$61

Annual Job Openings

58 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	15.28%
A certificate	0.00%
Some college	0.25%
An Associate degree	73.23%
A Bachelor's degree	11.24%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

11.24% continue their education beyond an associate degree

Funeral Home Managers

Job Description

Plan, direct, or coordinate the services or resources of funeral homes. Includes activities such as determining prices for services or merchandise and managing the facilities of funeral homes.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$43,227
Median 50th Percentile	$73,767
Senior-Level 90th Percentile	$120,639

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$35
Senior-Level 90th Percentile	$58

Annual Job Openings

13 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	25.54%
A certificate	14.63%
Some college	3.49%
An Associate degree	49.85%
A Bachelor's degree	6.49%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

6.49% continue their education beyond an associate degree

Funeral Attendants

Job Description

Perform a variety of tasks during funeral, such as placing casket in parlor or chapel prior to service, arranging floral offerings or lights around casket, directing or escorting mourners, closing casket, and issuing and storing funeral equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$31,814
Median 50th Percentile	$35,601
Senior-Level 90th Percentile	$46,557

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$17
Senior-Level 90th Percentile	$22

Annual Job Openings

77 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	53.86%
A certificate	0.00%
Some college	12.63%
An Associate degree	22.48%
A Bachelor's degree	9.29%
A Master's or Professional degree	1.73%
A Doctoral degree or more	0.00%

11.02% continue their education beyond an associate degree

Embalmers

Job Description

Prepare bodies for interment in conformity with legal requirements.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,540
Median 50th Percentile	$49,718
Senior-Level 90th Percentile	$88,135

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$24
Senior-Level 90th Percentile	$42

Annual Job Openings

6 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	86.37%
A Bachelor's degree	13.63%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

13.63% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Music Business, Basic Certificate

College(s): HW

Program Code: 0093

The Basic Certificate program in Music Business prepares students for the study of the techniques and standards needed for a career as a manager, publisher, professional musician, or agent. Completion of the Music Business program can lead to employment with such businesses as recording companies, management firms, publishing companies, music festivals, or music production companies. Practical experience within the music industry is included. The field is highly competitive, but employment opportunities are expanding rapidly.

Program Requirements

Code	Title	Hours
Required Program Core		
BUSINES 111	Introduction To Business	3
BUSINES 231	Marketing	3
MUSIC 102	Music Theory I	3
MUSIC 105	Group Piano I	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 120	Introduction to Music Business	3
MUSIC 221	Music Literature & History	3
MUSIC 225	Individual Project	2
Total Hours		**21**

Pathway

This is an **example course sequence** for students interested in pursuing Music Business. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC). The BC program in Music Business prepares students for the study of the techniques and standards needed for a career as a manager, publisher, professional musician, or agent. Completion of the Music Business program can lead to employment with such businesses as recording companies, management firms, publishing companies, music festivals, or music production companies. Practical experience within the music industry is included. The field is highly competitive, but employment opportunities are expanding rapidly.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
BUSINES 111	Introduction To Business	3
MUSIC 105	Group Piano I	2
MUSIC 120	Introduction to Music Business	3
	Hours	**8**
Semester 2		
BUSINES 231	Marketing	3
MUSIC 102	Music Theory I	3
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 221	Music Literature & History	3
MUSIC 225	Individual Project	2
	Hours	**13**
	Total Hours	**21**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Musicians and Singers

Job Description

Play one or more musical instruments or sing. May perform on stage, for broadcasting, or for sound or video recording.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,926
Median 50th Percentile	$81,034
Senior-Level 90th Percentile	$228,460

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$39
Senior-Level 90th Percentile	$110

Annual Job Openings

432 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.38%
A certificate	0.32%
Some college	8.56%
An Associate degree	0.00%
A Bachelor's degree	29.92%
A Master's or Professional degree	17.15%
A Doctoral degree or more	12.66%

59.73% continue their education beyond an associate degree

Music Directors and Composers

Job Description

Conduct, direct, plan, and lead instrumental or vocal performances by musical artists or groups, such as orchestras, bands, choirs, and glee clubs; or create original works of music.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$24,931
Median 50th Percentile	$45,465
Senior-Level 90th Percentile	$125,121

Hourly Wages

Entry-Level 10th Percentile	$12
Median 50th Percentile	$22
Senior-Level 90th Percentile	$60

Annual Job Openings

83 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	8.91%
A certificate	0.00%
Some college	6.20%
An Associate degree	7.89%
A Bachelor's degree	26.23%
A Master's or Professional degree	30.14%
A Doctoral degree or more	20.62%

76.99% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Music Education, Associate in Fine Arts

College(s): HW

Program Code: 0208

Music educators are passionate about developing their students' musical talents and guiding them in their pursuit of music careers. They also enjoy helping all students have fun, develop discipline, and enrich their lives by learning to play music. Learn how to teach music and music appreciation to people of various ages and abilities. Students may take courses in curriculum design, music theory, music history, classroom management, and technology for music teachers. People with degrees in Music Education can choose to become music teachers, recreational therapists, musicians, sound engineers, and more.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math (or higher Mathematics)	3
MUSIC 221	Music Literature & History	3
Social and Behavioral Sciences course [1]		3
Fine Arts & Humanities course [1]		3
Physical Sciences or Life Sciences course [1,2]		7
Required Program Core		
MUSIC 102	Music Theory I	3
MUSIC 103	Music Theory II	3
MUSIC 105	Group Piano I	2
MUSIC 106	Group Piano II	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 181	Applied Music-Freshman Level I	2
MUSIC 182	Applied Music-Freshman Level II	2
MUSIC 201	Music Theory III	3
MUSIC 202	Music Theory IV	3
MUSIC 211	Aural and Keyboard Skills III	2
MUSIC 212	Aural and Keyboard Skill IV	2
MUSIC 281	Applied Music-Sophomore Level I	2
MUSIC 282	Appl Music-Soph Lvl II	2
Program Electives		
Select a minimum of 2 credit hours of the following:		2
MUSIC 109	Jazz/Pop Ensemble	
MUSIC 110	Jazz/Pop Ensemble: Blues Emphasis	
MUSIC 131	Chorus	
MUSIC 135	Instrumental Ensembles	
MUSIC 136	Vocal Ensembles	
Total Hours		**62**

[1] One of the courses must be an HD course.
[2] Minimum one course each in Physical Sciences & Life Sciences; one course must be a lab.

Pathway

Follow the Music Education pathway and learn how to teach music and music appreciation to students of various ages and abilities. People with degrees in music education can choose to become music teachers, recreational therapists, musicians, sound engineers, and more.

This is an **example course sequence** for students interested in pursuing Music Education. This does not represent a contract, nor does it

guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Fine Arts (AFA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MUSIC 102	Music Theory I (placement test required)	3
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 105	Group Piano I	2
MUSIC 181	Applied Music-Freshman Level I	2
MUSIC 183	World Music (HD) [1]	3
	Hours	**15**
Semester 2		
SPEECH 101	Fundamentals of Speech Communication [1]	3
MUSIC 103	Music Theory II	3
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 106	Group Piano II	2
Life Sciences with Lab [1]		4
MUSIC 182	Applied Music-Freshman Level II	2
Program Elective (p. 373) [2]		1-2
	Hours	**17-18**
Semester 3		
ENGLISH 102	Composition [1]	3
MUSIC 201	Music Theory III	3
MUSIC 211	Aural and Keyboard Skills III	2
MATH 118	General Education Math (or higher Mathematics) [1,3]	4
MUSIC 281	Applied Music-Sophomore Level I	2
Program Elective (p. 373) [2]		1-2
	Hours	**15-16**
Semester 4		
PSYCH 201	General Psychology [1]	3
MUSIC 202	Music Theory IV	3
MUSIC 212	Aural and Keyboard Skill IV	2
MUSIC 282	Appl Music-Soph Lvl II	2
MUSIC 221	Music Literature & History [1]	3
Physical Sciences course with no lab [1]		3
	Hours	**16**
	Total Hours	**63-65**

1 General Education Requirement
2 Program Elective (p. 373)
3 Except for MATH 299 Special Topics Mathematics

Program Elective

Code	Title	Hours
MUSIC 109	Jazz/Pop Ensemble	2
MUSIC 110	Jazz/Pop Ensemble: Blues Emphasis	2
MUSIC 131	Chorus	2
MUSIC 135	Instrumental Ensembles	1
MUSIC 136	Vocal Ensembles	1

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Music Performance, Associate in Fine Arts

College(s): HW, WR

Program Code: 0205

The Associate in Fine Arts Degree with a concentration in Music Performance provides the necessary foundation for more advanced study in music performance, music theory, music history, or music composition at four-year colleges, universities, and music conservatories. Performance areas include all musical instruments and voice. Employment opportunities are varied and are usually based on the student's personal interest and area of specialization, including all professions based in the musical arts (performance, composition, research and analysis, music management, library science, music publishing, music therapy, among others).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
One Mathematics course		4
Any two IAI approved Humanities/Fine Arts courses		6
One Social and Behavioral Sciences course		3
Two Physical Sciences & Life Sciences courses [1]		7
Required Program Core		
MUSIC 102	Music Theory I	3
MUSIC 103	Music Theory II	3
MUSIC 105	Group Piano I	2
MUSIC 106	Group Piano II	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 181	Applied Music-Freshman Level I	2
MUSIC 182	Applied Music-Freshman Level II	2
MUSIC 201	Music Theory III	3
MUSIC 202	Music Theory IV	3
MUSIC 211	Aural and Keyboard Skills III	2
MUSIC 212	Aural and Keyboard Skill IV	2
MUSIC 221	Music Literature & History	3
MUSIC 281	Applied Music-Sophomore Level I	2
MUSIC 282	Appl Music-Soph Lvl II	2
Program Electives		
Select a minimum of four courses of the following for a minimum of four credit hours:		4
MUSIC 109	Jazz/Pop Ensemble [2]	
MUSIC 110	Jazz/Pop Ensemble: Blues Emphasis [2]	
MUSIC 113	String Class	
MUSIC 119	Percussion Class	
MUSIC 131	Chorus [2]	
MUSIC 133	Concert Band [2]	
MUSIC 134	Orchestra [2]	
MUSIC 135	Instrumental Ensembles [2]	
MUSIC 136	Vocal Ensembles [2]	
Total Hours		**68**

[1] Minimum one course each in Physical & Life Sciences; one course must be a lab.

[2] Allowed repeatable courses may be repeated for credit to satisfy elective requirements.

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an example course sequence for students interested in pursuing Music Performance. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Fine Arts (AFA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MUSIC 102	Music Theory I (placement test required)	3
MUSIC 105	Group Piano I	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 181	Applied Music-Freshman Level I	2
Any Music Ensemble (p. 375) [2]		1-2
Physical Sciences or Life Sciences with no lab [1]		3
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**19-20**
Semester 2		
Mathematics course [1]		4
MUSIC 103	Music Theory II	3
MUSIC 106	Group Piano II	2
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 182	Applied Music-Freshman Level II	2
MUSIC 183	World Music (HD) [1]	3
Any Music Ensemble (p. 375) [2]		1-2
	Hours	**17-18**
Semester 3		
ENGLISH 102	Composition [1]	3
MUSIC 201	Music Theory III	3
MUSIC 211	Aural and Keyboard Skills III	2
MUSIC 221	Music Literature & History	3
MUSIC 281	Applied Music-Sophomore Level I	2
Any Music Ensemble (p. 375) [2]		1-2
Humanities course [1]		3
	Hours	**17-18**
Semester 4		
MUSIC 202	Music Theory IV	3
MUSIC 212	Aural and Keyboard Skill IV	2
MUSIC 282	Appl Music-Soph Lvl II	2
Any Music Ensemble (p. 375) [2]		1-2
Physical Sciences or Life Sciences course with lab [1]		4
Social and Behavioral Sciences course [1]		3
	Hours	**15-16**
	Total Hours	**68-72**

[1] General Education Requirement
[2] Pathway Elective (p. 375)

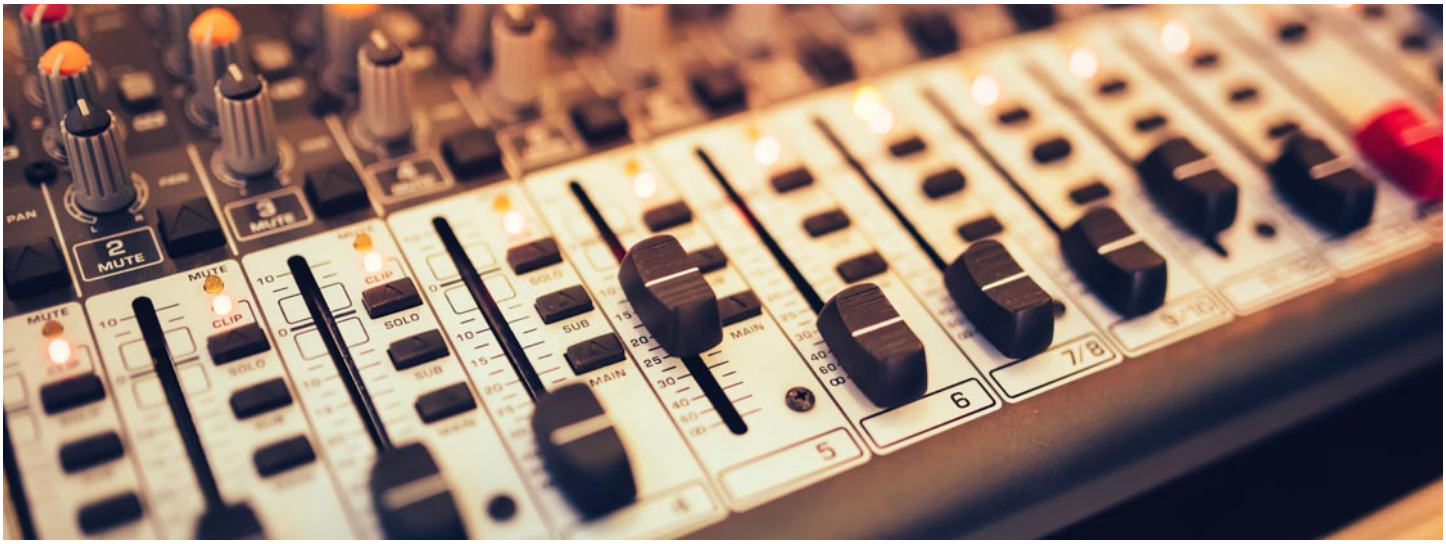
Program Electives - Music Ensembles

Code	Title	Hours
MUSIC 109	Jazz/Pop Ensemble	2
MUSIC 110	Jazz/Pop Ensemble: Blues Emphasis	2
MUSIC 113	String Class	2
MUSIC 119	Percussion Class	2
MUSIC 131	Chorus	1-2
MUSIC 133	Concert Band	1
MUSIC 134	Orchestra	1
MUSIC 135	Instrumental Ensembles	1
MUSIC 136	Vocal Ensembles	1

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Music Technology, Basic Certificate



College(s): HW

Program Code: 0094

The Basic Certificate program in Music Technology is the study of techniques and standards needed for careers as a recording engineer, producer, professional musician, or composer/ arranger. Completion of the certificate program can lead to employment with such businesses as advertising agencies, recording studios, recording companies, video game companies, publishing companies, radio stations, or as a free-lance artist. The field is highly competitive, but employment opportunities are expanding rapidly.

Program Requirements

Code	Title	Hours
Required Program Core		
DMD 115	Digital Audio	3
MUSIC 102	Music Theory I	3
MUSIC 103	Music Theory II	3
MUSIC 105	Group Piano I	2
MUSIC 106	Group Piano II	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 204	Commercial Music Workshop I	2
MUSIC 205	Commercial Music Workshop II	2
MUSIC 221	Music Literature & History	3
MUSIC 225	Individual Project	2
Total Hours		**26**

Pathway

This is an **example course sequence** for students interested in pursuing Music Technology. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC). The BC program in Music Technology is the study of techniques and standards needed for careers as a recording engineer, producer, professional musician, or composer/ arranger. Completion of the certificate program can lead to employment with such businesses as advertising agencies, recording studios, recording companies, video game companies, publishing companies, radio stations, or as a free-lance artist. The field is highly competitive, but employment opportunities are expanding rapidly.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
DMD 115	Digital Audio	3
MUSIC 101	Fundamentals of Music Theory [1]	3
MUSIC 105	Group Piano I	2
MUSIC 204	Commercial Music Workshop I	2
	Hours	**10**
Semester 2		
MUSIC 102	Music Theory I	3
MUSIC 106	Group Piano II	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 205	Commercial Music Workshop II	2
MUSIC 221	Music Literature & History	3
	Hours	**12**
Semester 3		
MUSIC 103	Music Theory II	3
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 225	Individual Project	2
	Hours	**7**
	Total Hours	**29**

[1] Program Prerequisite

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Musicians and Singers

Job Description

Play one or more musical instruments or sing. May perform on stage, for broadcasting, or for sound or video recording.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,926
Median 50th Percentile	$81,034
Senior-Level 90th Percentile	$228,460

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$39
Senior-Level 90th Percentile	$110

Annual Job Openings

432 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.38%
A certificate	0.32%
Some college	8.56%
An Associate degree	0.00%
A Bachelor's degree	29.92%
A Master's or Professional degree	17.15%
A Doctoral degree or more	12.66%

59.73% continue their education beyond an associate degree

Music Directors and Composers

Job Description

Conduct, direct, plan, and lead instrumental or vocal performances by musical artists or groups, such as orchestras, bands, choirs, and glee clubs; or create original works of music.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$24,931
Median 50th Percentile	$45,465
Senior-Level 90th Percentile	$125,121

Hourly Wages

Entry-Level 10th Percentile	$12
Median 50th Percentile	$22
Senior-Level 90th Percentile	$60

Annual Job Openings

83 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	8.91%
A certificate	0.00%
Some college	6.20%
An Associate degree	7.89%
A Bachelor's degree	26.23%
A Master's or Professional degree	30.14%
A Doctoral degree or more	20.62%

76.99% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Networking Systems and Technology, Advanced Certificate

College(s): DA, KK, OH, TR, WR

Program Code: 0142

Networking Systems and Technology, Advanced Certificate

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 221	Internetworking III	3
NET TEC 222	Internetworking IV	3
or NET TEC 245	Cloud Computing and Services	
NET TEC 240	Operating Systems/Server I	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in earning a degree in Networking Systems and Technology. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Networking Systems and Technology. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 111	Computer Operations	3
NET TEC 121	Internetworking I	3
	Hours	**12**
Semester 2		
NET TEC 122	Internetworking II	3
CIS 255	Operating Systems II	3
	Hours	**6**
Semester 3		
COMPSFI 102	Information Security Essentials	3
NET TEC 221	Internetworking III	3
NET TEC 240	Operating Systems/Server I	3
	Hours	**9**
Semester 4		
NET TEC 222 or NET TEC 245	Internetworking IV or Cloud Computing and Services	3
	Hours	**3**
	Total Hours	**30**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Computer User Support Specialists

Job Description

Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone, or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,798
Median 50th Percentile	$60,344
Senior-Level 90th Percentile	$98,334

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$29
Senior-Level 90th Percentile	$47

Annual Job Openings

782 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.32%
A certificate	32.33%
Some college	1.92%
An Associate degree	13.74%
A Bachelor's degree	47.32%
A Master's or Professional degree	4.37%
A Doctoral degree or more	0.00%

51.69% continue their education beyond an associate degree

Computer Network Support Specialists

Job Description

Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.

Salary Based on Experience Level

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Senior-Level 90th Percentile	$119,728

Hourly Wages

Entry-Level 10th Percentile	$24
Median 50th Percentile	$34
Senior-Level 90th Percentile	$58

Annual Job Openings

216 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.23%
A certificate	10.16%
Some college	13.63%
An Associate degree	21.68%
A Bachelor's degree	48.77%
A Master's or Professional degree	1.53%
A Doctoral degree or more	0.00%

50.30% continue their education beyond an associate degree

Network and Computer Systems Administrators

Job Description

Install, configure, and maintain an organization's local area network (LAN), wide area network (WAN), data communications network, operating systems, and physical and virtual servers. Perform system monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Review system and application logs and verify completion of scheduled jobs, including system backups. Analyze network and server resource consumption and control user access. Install and upgrade software and maintain software licenses. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software.

Salary Based on Experience Level

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Annual Wages

Entry-Level 10th Percentile	$63,697
Median 50th Percentile	$101,647
Senior-Level 90th Percentile	$155,330

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$49
Senior-Level 90th Percentile	$75

Annual Job Openings

265 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.49%
Some college	9.72%
An Associate degree	20.30%
A Bachelor's degree	52.37%
A Master's or Professional degree	10.13%
A Doctoral degree or more	0.00%

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Information Security Analysts

Job Description

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

Salary Based on Experience Level

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Annual Wages

Entry-Level 10th Percentile	$75,232
Median 50th Percentile	$121,218
Senior-Level 90th Percentile	$179,882

Hourly Wages

Entry-Level 10th Percentile	$36
Median 50th Percentile	$58
Senior-Level 90th Percentile	$86

Annual Job Openings

192 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	7.16%
Some college	2.01%
An Associate degree	12.87%
A Bachelor's degree	75.16%
A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

Networking Systems and Technology, Associate in Applied Science

College(s): DA, KK, OH, TR, WR

Program Code: 0141

This program is for students interested in administering and maintaining network equipment as well as software and services common in modern network infrastructures. Curriculum covers both hardware and software components. It also offers students relevant skills required in a variety of industry certifications including A+, Network+, CCENT, CCNA, and CCNA Security.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
Mathematics (MATH 125 recommended)		4
Fine Arts or Humanities course		3
Social and Behavioral Sciences course		3
Physical Sciences or Life Sciences course		3
Required Program Core		
BUSINES 111	Introduction To Business	3
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
COMPSFI 102	Information Security Essentials	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 221	Internetworking III	3
NET TEC 222	Internetworking IV	3
or NET TEC 245	Cloud Computing and Services	
NET TEC 240	Operating Systems/Server I	3
Required Work-Based Learning Courses		
CIS 260	Computer Information Systems Field Project	3
or CIS 265	Computer Information Systems Internship	
Program Electives		
Students must complete a minimum of 9 credit hours in the subjects Computer Information Systems (0032), Networking Technologies (0165), or Cybersecurity (0162).		9
Total Hours		**61**

[1] At least one course must be an HD course.

Pathway

This is an **example course sequence** for students interested in earning a degree in Networking Systems and Technology. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), an Advanced Certificate (AC), and an Associate in Applied Science (AAS) Degree in Networking Systems and Technology. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

The Networking Systems and Technology AAS program is for students interested in administering and maintaining network equipment such as routers, switches, and servers, as well as, maintaining software and services that are common in modern network infrastructures. The curriculum covers both hardware and software components which help prepare students for jobs in the Information Technology (IT) market. It also offers students relevant knowledge and skills required in a variety of industry certifications including: A+, Network+, CCENT, CCNA and CCNA Security.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 111	Computer Operations	3
NET TEC 121	Internetworking I	3
	Hours	**15**
Semester 2		
BUSINES 111	Introduction To Business	3
CIS 255	Operating Systems II	3
MATH 125	Introductory Statistics (or other Mathematics)	4
NET TEC 122	Internetworking II	3
Fine Arts & Humanities course (HD) [1]		3
	Hours	**16**
Semester 3		
COMPSFI 102	Information Security Essentials	3
NET TEC 221	Internetworking III	3
NET TEC 240	Operating Systems/Server I	3
Physical Sciences or Life Sciences course [1]		3
Program Elective [2]		3
	Hours	**15**
Semester 4		
NET TEC 222 or NET TEC 245	Internetworking IV or Cloud Computing and Services	3
CIS 260 or CIS 265	Computer Information Systems Field Project (Capstone or Internship) or Computer Information Systems Internship	3
Social and Behavioral Sciences course [1]		3
Program Elective [2]		3
Program Elective [2]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education Requirement

[2] Students must complete a minimum of 9 credit hours in the subjects Computer Information Systems (0032) (p. 649), Networking Technologies (0165) (p. 745), or Cybersecurity (0162) (p. 666).

Choose your courses with your College Advisor.

Careers

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Job Description

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Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

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Annual Wages

Entry-Level 10th Percentile	$39,798
Median 50th Percentile	$60,344
Senior-Level 90th Percentile	$98,334

Hourly Wages

Entry-Level 10th Percentile	$19
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Annual Job Openings

782 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.32%
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Networking Systems and Technology, Basic Certificate

College(s): DA, KK, OH, TR, WR

Program Code: 0143

Networking Systems and Technology, Basic Certificate

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 111	Computer Operations	3
CIS 116	Operating System I	3
CIS 255	Operating Systems II	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in earning a degree in Networking Systems and Technology. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Networking Systems and Technology. It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 111	Computer Operations	3
NET TEC 121	Internetworking I	3
	Hours	**12**
Semester 2		
CIS 255	Operating Systems II	3
NET TEC 122	Internetworking II	3
	Hours	**6**
	Total Hours	**18**

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Careers

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An Associate degree	12.87%
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A Master's or Professional degree	2.80%
A Doctoral degree or more	0.00%

77.96% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Nursing, Associate in Applied Science

College(s): MX

Program Code: 0239

The Associate in Applied Science degree program in Nursing prepares students through the study of nursing theory and patient care techniques to take the licensure examination for Registered Nurses (RN). Both classroom instruction and clinical experiences in Chicago, surrounding suburban area hospitals, and primary care facilities are provided. The curriculum is designed to lead the student to employment as a registered professional nurse in hospitals, clinics, nursing homes, physicians' offices, schools, public health, government, and military, or industry.

Proof of a Certified Nursing Assistant (CNA) certificate is required at the time of application to the Nursing program.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Nursing AAS at Malcolm X College, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Nursing-Department.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
BIOLOGY 121	Biology I	5
CHEM 121	Basic Chemistry I [2]	4
or CHEM 201	General Chemistry I	
or CHEM 203	General Chemistry II	
or CHEM 205	Organic Chemistry I	
or CHEM 207	Organic Chemistry II	
or CHEM 212	Survey of Organic & Biochemistry	
or CHEM 217	Intro Instrumental Analysis	
MATH 118	General Education Math (or higher Gen Ed Mathematics)	4
Required Program Core		
MCROBIO 233	General Microbiology	4
BIOLOGY 226	Human Structure and Function I	4
BIOLOGY 227	Human Structure and Function II	4
NURSING 101	Fundamentals of Nursing	7
NURSING 102	Introduction to Medical-Surgical	7
NURSING 208	Maternal-Newborn Nursing	3
NURSING 209	Mental Health Nursing	3
NURSING 210	Intermediate Medical-Surgical Nursing	6
NURSING 213	Advanced Medical Surgical	6
NURSING 214	Gerontologic Nursing	3
NURSING 215	Pediatric Nursing	3
NURSING 216	Nursing Leadership	3
Total Hours		**69**

[1] This course fulfills the Human Diversity (HD) requirement.
[2] Effective Spring 2024, the list of approved Chemistry courses expands from CHEM 121 to include additional options.

Pathway

This is an **example course sequence** for students who are seeking admission into the Nursing program. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as

outlined, you will earn an Associate in Applied Science (AAS) Degree in Nursing.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
BIOLOGY 121	Biology I [1]	5
CHEM 121	Basic Chemistry I [1,3]	4
or CHEM 201	or General Chemistry I	
or CHEM 203	or General Chemistry II	
or CHEM 205	or Organic Chemistry I	
or CHEM 207	or Organic Chemistry II	
or CHEM 212	or Survey of Organic & Biochemistry	
or CHEM 217	or Intro Instrumental Analysis	
MATH 118	General Education Math (or higher Gen Ed Mathematics) [1]	4
	Hours	**16**
Semester 2		
BIOLOGY 226	Human Structure and Function I [2]	4
MCROBIO 233	General Microbiology [2]	4
	Hours	**8**
Semester 3		
NURSING 101	Fundamentals of Nursing	7
BIOLOGY 227	Human Structure and Function II [2]	4
	Hours	**11**
Semester 4		
NURSING 102	Introduction to Medical-Surgical	7
	Hours	**7**
Semester 5		
NURSING 208	Maternal-Newborn Nursing	3
NURSING 209	Mental Health Nursing	3
NURSING 210	Intermediate Medical-Surgical Nursing	6
	Hours	**12**
Semester 6		
NURSING 213	Advanced Medical Surgical	6
NURSING 214	Gerontologic Nursing	3
NURSING 215	Pediatric Nursing	3
NURSING 216	Nursing Leadership	3
	Hours	**15**
	Total Hours	**69**

1 Program Prerequisite
2 Program Corequisite
3 Effective Spring 2024, the list of approved Chemistry courses expands from CHEM 121 to include additional options.

Choose your courses with your College Advisor.

Program Admission Requirements

Acceptance into the Nursing Program is competitive and requires an established cumulative GPA at CCC. Nursing prerequisites can be completed at any one of the seven City Colleges of Chicago. Upon admission to the CCC Nursing Program, students will complete the program at Malcolm X College. Any questions regarding application and admissions process please email the CCC Nursing Programs at CCCNursingAdmissions@ccc.edu. In addition, informational sessions are available at Malcolm X College Nursing Programs.

To be eligible to apply to the CCC Nursing Program, a student must have successfully completed:

1. All four prerequisite courses:

Code	Title	Hours
Prerequisite Courses *		
BIOLOGY 121	Biology I (completed within the past 10 years)	5
CHEM 121	Basic Chemistry I (any chemistry course must be completed within the past 10 years) **	4
or CHEM 201	General Chemistry I	
or CHEM 203	General Chemistry II	
or CHEM 205	Organic Chemistry I	
or CHEM 207	Organic Chemistry II	
or CHEM 212	Survey of Organic & Biochemistry	
or CHEM 217	Intro Instrumental Analysis	
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher gen ed math course)	4
Total Hours		**16**

* All prerequisite courses (4) must be completed with a grade of "C" or higher prior to the posted online application deadline.
** Effective Spring 2024, the list of approved Chemistry courses expands from CHEM 121 to include additional options.

2. ATI Pre-admission Exam (must be taken at a CCC campus during the application process),
3. Background check
4. Cumulative GPA at CCC of 2.75 prior to the posted application deadline date. All applications will be reviewed for selection by the Nursing Admission Committee.
5. Proof of a Certified Nursing Assistant (CNA) certificate is required at the time of application to the Nursing program.
6. Official high school transcript or GED

ATI TEAS Exam:

- Minimum Cumulative Score: 65%
- Minimum Reading Score: 73%

Please Note: Submitting the application and possessing the requirements for the CCC Nursing Program does not guarantee admission.

Before submitting the online application, the online application will request a copy of the applicant's ATI score, date of Certified Background check, prerequisite grades, and CCC cumulative GPA. The applicant will then certify via application submission that the submitted information is **not** false. Falsification of information will result in disqualification for application review. The Nursing Admission Committee will then refer to the respective databases to confirm the submitted information.

Background Check

Students entering most healthcare professions programs will be required to present documentation of health history and vaccination status, to undergo annual tuberculosis screening, to submit to a background check, to submit to initial and random drug screening, and to undergo

fingerprinting prior to licensing with the state of Illinois. Students should consult with a College Advisor if any of these requirements are a concern.

For more information on admissions requirements and the application process, visit the Nursing Department webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Nursing-Department.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Registered Nurses

Job Description

Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$68,615
Median 50th Percentile	$91,855
Senior-Level 90th Percentile	$116,660

Hourly Wages

Entry-Level 10th Percentile	$33
Median 50th Percentile	$44
Senior-Level 90th Percentile	$56

Annual Job Openings

3550 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.76%
A certificate	22.50%
Some college	0.00%
An Associate degree	19.39%
A Bachelor's degree	55.92%
A Master's or Professional degree	1.43%
A Doctoral degree or more	0.00%

57.35% continue their education beyond an associate degree

Occupational Therapy Assistant, Associate in Applied Science

College(s): WR*

Program Code: 0259

The Associate in Applied Science degree program in Occupational Therapy Assistant (OTA) is the study of occupational therapy as a skilled healthcare service that uses occupation to promote meaningful living. Occupational therapy assistants, under the guidance of occupational therapists, adapt activities, tasks, and the environment in order to enable people of all ages and backgrounds to fulfill their chosen occupations and life roles. Career options can include employment in hospitals, clinics, schools, specialized community care settings, and wellness programs. The program's mission is to prepare competent and effective occupational therapy practitioners who value occupation as both a means and as an end to quality living for self and others through a sound educational experience that includes preparation in:

- The occupational therapy process
- The impact of culture
- Use of self as an agent of change
- Ethical professional practice
- Teaching and learning processes
- Collaborating as a healthcare professional
- Working in a variety of practice environments
- Oral and written communication skills

The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education. Graduates of the program are eligible to sit for the National Certification Exam for Occupational Therapy Assistants administered by the National Board for Certification in Occupational Therapy, Inc. (NBCOT). After successful completion of this exam, an individual becomes a Certified Occupational Therapy Assistant. Determination of exam eligibility for applicants who have a felony related charge or conviction requires individualized review by NBCOT, Inc. Most states require licensure in order to practice. Illinois license issuance is based upon the results of the NBCOT Certification exam.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Occupational Therapy Assistant program at Wright College, visit the program webpage (https://www.ccc.edu/colleges/wright/departments/Pages/Occupational-Therapy-Assistant--.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
CIS 120	Introduction to Computer Applications	3
PSYCH 201	General Psychology	3
OTA 106	Foundations of Human Occupation	3
PSYCH 207	Child Psychology	3
or CHLD DV 101	Human Growth & Development I	
Required Program Core		
BIOLOGY 226	Human Structure and Function I	4
BIOLOGY 227	Human Structure and Function II	4
SOC 201	Intro To the Study Of Society	3
OTA 107	Occupations Of Childhood	5
OTA 108	Practice Skills of OT Assistant I	2
OTA 109	Occupations of Adolescence Early Adulthood	5
OTA 110	Practice Skills of OT Assistant II	2
OTA 209	Occupation of Middle Adulthood	5
OTA 210	Practice Skills of OT Assistant III	2
OTA 211	Special Topics for OT I	3
OTA 212	Occupations of Later Adulthood	5

OTA 213	Practice Skills of OT Assistant IV	2
OTA 214	Special Topics for OTA II	3
Required Work-Based Learning Courses		
OTA 215	Fieldwork Level II	6
OTA 216	Fieldwork Level B	6
Program Electives		
Select one of the following:		3
PSYCH 222	Adult Development And Aging	
SOC SER 102	Introduction To Gerontology	
CHLD DV 102	Human Growth & Development II	
Total Hours		**75**

Pathway

This is an **example course sequence** for students interested in earning a degree in occupational therapy. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science Degree (AAS) in Occupational Therapy Assistant (OTA). One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
OTA 106	Foundations of Human Occupation [1]	3
ENGLISH 101	Composition [1]	3
BIOLOGY 121	Biology I [1]	5
CIS 120	Introduction to Computer Applications [1]	3
PSYCH 201	General Psychology [1]	3
	Hours	**17**
Semester 2		
BIOLOGY 226	Human Structure and Function I [1]	4
SOC 201	Intro To the Study Of Society [1]	3
PSYCH 207 or CHLD DV 101	Child Psychology [1] or Human Growth & Development I	3-4
Select one of the following:		3
PSYCH 222	Adult Development And Aging [2]	
SOC SER 102	Introduction To Gerontology [2]	
CHLD DV 102	Human Growth & Development II (in semester 3) [2]	
	Hours	**13-14**
Semester 3		
OTA 107	Occupations Of Childhood	5
OTA 108	Practice Skills of OT Assistant I	2
BIOLOGY 227	Human Structure and Function II [1]	4
	Hours	**11**
Semester 4		
OTA 109	Occupations of Adolescence Early Adulthood	5
OTA 110	Practice Skills of OT Assistant II	2
	Hours	**7**
Semester 5		
OTA 209	Occupation of Middle Adulthood	5
OTA 210	Practice Skills of OT Assistant III	2
OTA 211	Special Topics for OT I	3
	Hours	**10**
Semester 6		
OTA 212	Occupations of Later Adulthood	5
OTA 213	Practice Skills of OT Assistant IV	2
OTA 214	Special Topics for OTA II	3
	Hours	**10**
Semester 7		
All academic coursework must be completed and an exit exam passed in order for students to proceed to the fieldwork component of the program.		
OTA 215	Fieldwork Level II	6
OTA 216	Fieldwork Level B	6
	Hours	**12**
	Total Hours	**80-81**

[1] Program Prerequisite
[2] Program Elective

Choose your courses with your College Advisor.

Program Admission Requirements

Students can make formal application to the program when all pre-admission coursework is completed, or when pre-admission coursework completion will occur before the beginning of Semester I of the program. A minimum grade of "C" is required in each pre-admission and general education course. If more candidates apply than the program can accept, the best qualified will be admitted.

Code	Title	Hours
Prerequisite courses:		
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
PSYCH 207 or CHLD DV 101	Child Psychology Human Growth & Development I	3-4
CIS 120	Introduction to Computer Applications	3
OTA 106	Foundations of Human Occupation	3

NOTE: If you plan to apply for admission prior to completing BIOLOGY 226 Human Structure and Function I and BIOLOGY 227 Human Structure and Function II, you also must complete BIOLOGY 121 Biology I, in order to meet City College Biology Department course requirements.

For more information on admissions requirements and the application process, visit the program webpage (https://www.ccc.edu/colleges/wright/departments/Pages/Occupational-Therapy-Assistant--.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Occupational Therapy Assistants

Job Description

Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with state laws, assist in development of treatment plans, carry out routine functions, direct

activity programs, and document the progress of treatments. Generally requires formal training.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,859
Median 50th Percentile	$63,176
Senior-Level 90th Percentile	$78,193

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$30
Senior-Level 90th Percentile	$38

Annual Job Openings

124 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	5.07%
An Associate degree	91.74%
A Bachelor's degree	3.19%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

3.19% continue their education beyond an associate degree

Occupational Therapy Aides

Job Description

Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$29,402
Median 50th Percentile	$39,663
Senior-Level 90th Percentile	$69,768

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$19
Senior-Level 90th Percentile	$34

Annual Job Openings

6 annual openings in Cook County

National Education Attainment

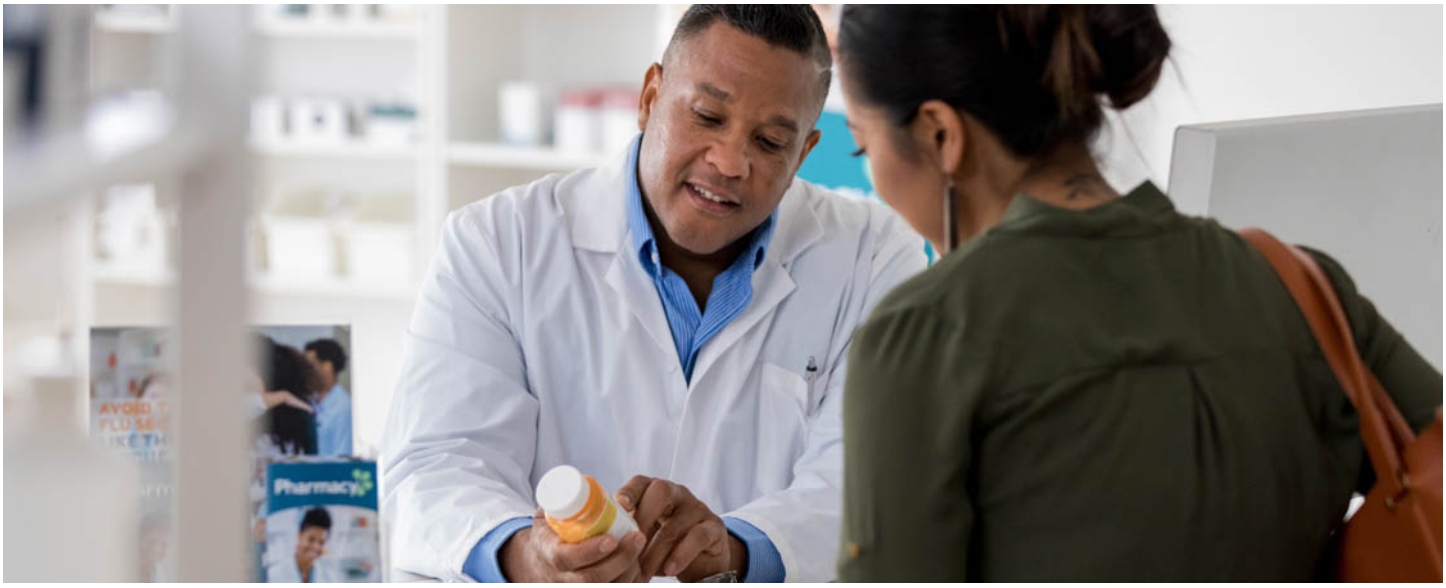
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	36.76%
A certificate	8.72%
Some college	24.32%
An Associate degree	28.40%
A Bachelor's degree	0.00%
A Master's or Professional degree	1.80%
A Doctoral degree or more	0.00%

1.80% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Outpatient Pharmacy Technology, Basic Certificate



College(s): MX

Program Code: 0420

Pharmacy technicians assist and support licensed pharmacists in providing health care and medications to patients. They may perform many of the same duties as pharmacists, but all technicians' work must be checked by a pharmacist before medication is dispensed. While pharmacy technicians can work everywhere pharmacists work, some state laws may limit the duties they perform.

The Outpatient Basic Certificate prepares students to work in community/retail settings, outpatient hospital settings, and any other pharmacy setting similar to the outpatient. If the student wishes to continue on, they can also earn an Advanced Certificate. A special application is required for entry into the program.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Pharmacy Technology Program, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Pharmacy-Technology.aspx).

Program Requirements

Code	Title	Hours
Required Program Core		
PHAR TC 131	Pharmacology I	2
PHAR TC 132	Pharmacology II	2
PHAR TC 133	Pharmacology Lab	1
PHAR TC 134	Pharmacy Practice	2
PHAR TC 135	Pharmacy Calculations	3
PHAR TC 136	Prescription Processing	1
PHAR TC 137	Pharmacy Communication	2
PHAR TC 138	Intro To Pharmacy Law	1
Required Work-Based Learning Courses		
PHAR TC 204	Retail/Outpatient Clinical	4
Total Hours		**18**

Pathway

This is an **example course sequence** for students interested in Outpatient Pharmacy Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Outpatient Pharmacy Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
First 8 weeks		
PHAR TC 131	Pharmacology I	2
PHAR TC 134	Pharmacy Practice	2
PHAR TC 135	Pharmacy Calculations	3
PHAR TC 136	Prescription Processing	1
PHAR TC 137	Pharmacy Communication	2
PHAR TC 138	Intro To Pharmacy Law	1
Second 8 weeks		
PHAR TC 132	Pharmacology II	2
PHAR TC 133	Pharmacology Lab	1
PHAR TC 204	Retail/Outpatient Clinical	4
	Hours	**18**
	Total Hours	**18**

Choose your courses with your College Advisor.

Program Admission Requirements

Applicants are eligible to apply online after the following is completed:

- Submit official college transcripts from all accredited colleges attended outside of City Colleges of Chicago.
- Eligible for ENGLISH 101 (https://catalog.ccc.edu/search/?P=ENGLISH%20101) Composition
- Eligible for college-level Math

For more information on admissions requirements and the application process, visit the Pharmacy Technology webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Pharmacy-Technology.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Pharmacy Technicians

Job Description

Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,108
Median 50th Percentile	$44,798
Senior-Level 90th Percentile	$56,508

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$27

Annual Job Openings

830 annual openings in Cook County

National Education Attainment

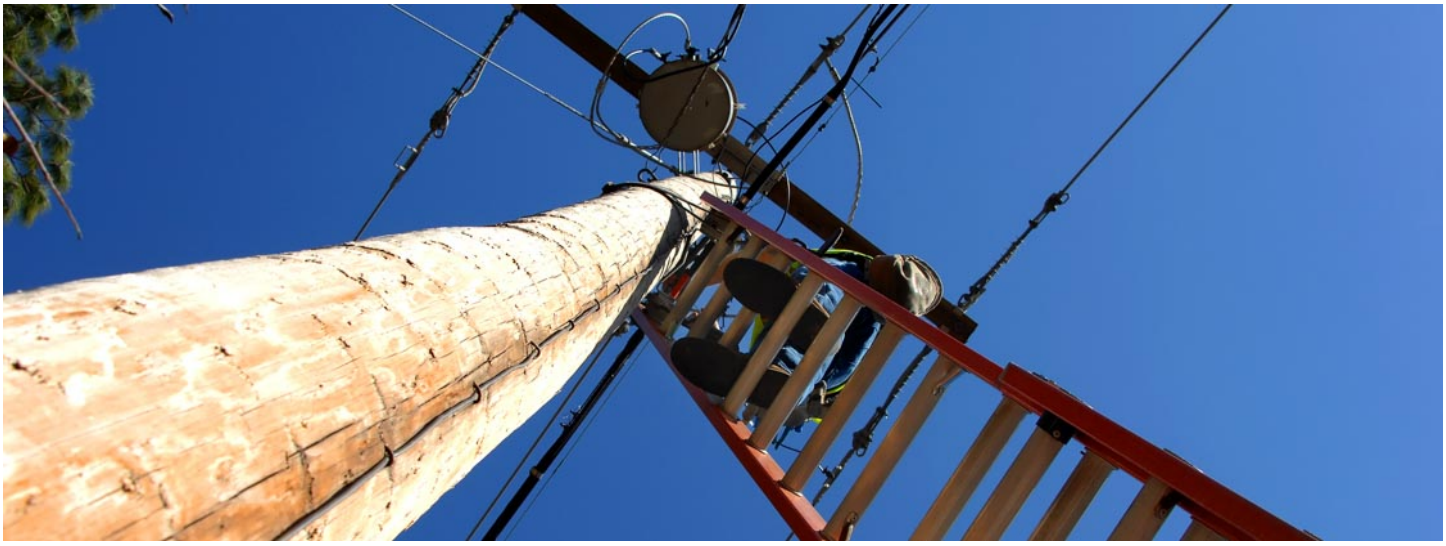
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	35.73%
A certificate	41.97%
Some college	14.63%
An Associate degree	3.83%
A Bachelor's degree	3.84%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

3.84% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Overhead Electrical Line Worker, Advanced Certificate



College(s): KK

Program Code: 0766

The Advanced Certificate program in Electrical Line Worker (Overhead) is structured to meet the current need for overhead electricians/electrical line workers in the electrical power industry.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
332TECH 448	Vocational Physical Training I	1
332TECH 449	Professional Development	2
332TECH 452	Basic Electrical Theory	3
332TECH 453	Overhead Techniques & Projects I	4
332TECH 458	Overhead Techniques & Projects II	4
332TECH 459	Construction Safety and Rescue	3
332TECH 462	Vocational Physical Training II	1
332TECH 463	Vocational Physical Training III	1
332TECH 464	Power Equipment Operation I	2.5
332TECH 470	Power Equipment Operations II	2.5
ENGLISH 197	Communications Skills	3
MATH 107	Math For Technicians I	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in electrical line work. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Electrical Line Worker (Overhead). This does not represent a contract, nor does it guarantee course availability.

The AC program in Electrical Line Worker (Overhead) is structured to meet the current need for overhead electricians/electrical line workers in the electrical power industry.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
PHASE 1		
332TECH 448	Vocational Physical Training I	1
332TECH 449	Professional Development	2
ENGLISH 197	Communications Skills	3
MATH 107	Math For Technicians I	3
PHASE 2		
332TECH 452	Basic Electrical Theory	3
332TECH 453	Overhead Techniques & Projects I	4
332TECH 462	Vocational Physical Training II	1
332TECH 464	Power Equipment Operation I	2.5
	Hours	**19.5**
Semester 2		
PHASE 3		
332TECH 458	Overhead Techniques & Projects II	4
332TECH 459	Construction Safety and Rescue	3
332TECH 463	Vocational Physical Training III	1
332TECH 470	Power Equipment Operations II	2.5
	Hours	**10.5**
	Total Hours	**30**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Electrical Power-Line Installers and Repairers

Job Description

Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$72,530
Median 50th Percentile	$115,054
Senior-Level 90th Percentile	$132,928

Hourly Wages

Entry-Level 10th Percentile	$35
Median 50th Percentile	$55
Senior-Level 90th Percentile	$64

Annual Job Openings

69 annual openings in Cook County

National Education Attainment

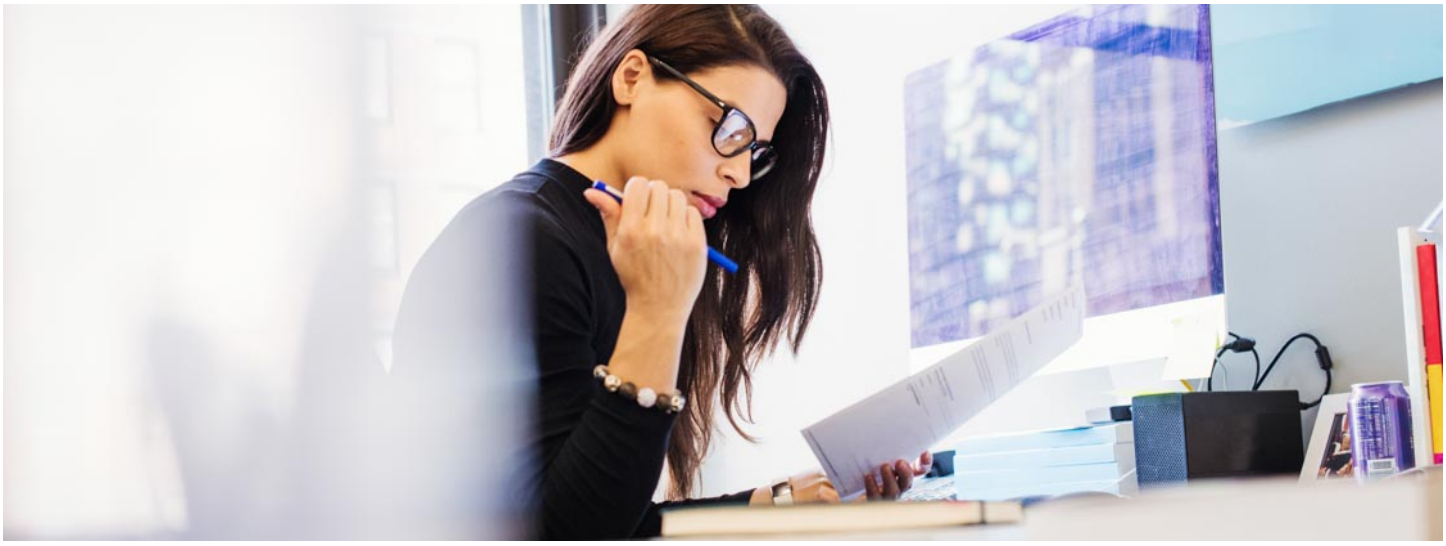
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	68.37%
A certificate	18.88%
Some college	9.94%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	2.81%
A Doctoral degree or more	0.00%

2.81% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Law and Paralegal Studies, Associate in Applied Science



College(s): HW, WR

Program Code: 0304

The Associate in Applied Science degree in Paralegal prepares students with the skills to become highly trained paralegals to meet the needs of corporations, law firms and offices, and other sectors where law-related work is performed. Program completion can lead to employment in any area where law-related work is conducted. Paralegals may not provide legal services directly to the public, except as permitted by law.

The program is approved by the American Bar Association.

To learn more about the Paralegal program at each college, including transfer policies, students can visit the Paralegal program website for their college.

- Harold Washington College (https://www.ccc.edu/colleges/washington/departments/Pages/Paralegal.aspx)
- Wilbur Wright College (https://www.ccc.edu/colleges/wright/departments/Pages/Paralegal.aspx)

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3
Courses from at least three of the following disciplines [1]		15
Mathematics		
Fine Arts and Humanities		
Social and Behavioral Sciences		
Physical Sciences and Life Sciences		
Required Program Core		
PARALEG 147	Intro to Paralegal Studies	3
PARALEG 148	Civil Litigation	3
PARALEG 149	Family Law	3
PARALEG 219	Real Estate Law for the Paralegal	3
PARALEG 222	Contract Law for the Paralegal	3
PARALEG 223	Tort Law	3
PARALEG 225	Legal Research and Writing	3
PARALEG 238	Legal Ethics for the Paralegal	3
Program Electives [2]		**12**
PARALEG 150	Legal Research and Writing I	
PARALEG 220	Criminal Law for the Paralegal	
PARALEG 224	Wills, Trusts and Probate	
PARALEG 226	Internship for the Paralegal	
PARALEG 227	Elder Law	
PARALEG 228	Environmental Law for the Paralegal	
PARALEG 229	Immigration Law	
PARALEG 239	Business Organizations & Agency Law	
PARALEG 240	Computers in the Law Office	
Additional General Education courses (up to 6 hours) (p. 595)		
Total Hours		**60**

[1] At least one course must satisfy the Human Diversity (HD) requirement
[2] Students may select up to two additional general education courses (6 hours) to count toward their program elective requirements

Pathway

This is an **example course sequence** for students interested in Paralegal. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree. All prescribed courses on this pathway are

required for the degree. Courses may not be substituted. Students should meet with a College Advisor for selection of elective courses.

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
PARALEG 147	Intro to Paralegal Studies	3
PARALEG 148	Civil Litigation	3
PARALEG 149	Family Law	3
PARALEG 238	Legal Ethics for the Paralegal	3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
PARALEG 219	Real Estate Law for the Paralegal	3
PARALEG 222	Contract Law for the Paralegal	3
PARALEG 223	Tort Law	3
SPEECH 101	Fundamentals of Speech Communication	2-3
	Hours	**14-15**
Semester 3		
PARALEG 225	Legal Research and Writing	3
General Education Course [1]		3
General Education Course [1]		3
Program Elective (p. 399) [2]		3
Program Elective (p. 399) [2]		3
	Hours	**15**
Semester 4		
General Education Course [1]		3
General Education Course [1]		3
Program Elective (p. 399) [2]		3
Program Elective (p. 399) [2]		3
Any IAI Approved Human Diversity course [1]		3
	Hours	**15**
	Total Hours	**59-60**

[1] General Education (p. 595) Requirement
[2] Program Elective (p. 399)

Program Electives

Code	Title	Hours
PARALEG 150	Legal Research and Writing I	3
PARALEG 220	Criminal Law for the Paralegal	3
PARALEG 224	Wills, Trusts and Probate	3
PARALEG 226	Internship for the Paralegal	3
PARALEG 227	Elder Law	3
PARALEG 228	Environmental Law for the Paralegal	3
PARALEG 229	Immigration Law	3
PARALEG 239	Business Organizations & Agency Law	3
PARALEG 240	Computers in the Law Office	3
Additional General Education courses (up to 6 hours) (p. 595)		

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Students with a Prior-Earned Degree or General Education Courses Completed

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication	3
Any IAI Approved Human Diversity Course [1]		3
General Education Course [1]		3
General Education Course [1]		3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
General Education Course [1]		3
General Education Course [1]		3
General Education Course [1]		3
General Education Course [1]		3
	Hours	**15**
Semester 3		
PARALEG 147	Intro to Paralegal Studies	3
PARALEG 148	Civil Litigation	3
PARALEG 149	Family Law	3
PARALEG 223	Tort Law	3
PARALEG 238	Legal Ethics for the Paralegal	3
	Hours	**15**
Semester 4		
PARALEG 219	Real Estate Law for the Paralegal	3
PARALEG 222	Contract Law for the Paralegal	3
PARALEG 225	Legal Research and Writing	3
Program Elective (p. 399) [2]		3
Program Elective (p. 399) [2]		3
	Hours	**15**
	Total Hours	**60**

[1] General Education (p. 595) Requirement
[2] Program Elective (p. 399)

PROGRAM ELECTIVES

Code	Title	Hours
PARALEG 150	Legal Research and Writing I	3
PARALEG 220	Criminal Law for the Paralegal	3
PARALEG 224	Wills, Trusts and Probate	3
PARALEG 226	Internship for the Paralegal	3
PARALEG 227	Elder Law	3
PARALEG 228	Environmental Law for the Paralegal	3
PARALEG 229	Immigration Law	3
PARALEG 239	Business Organizations & Agency Law	3
PARALEG 240	Computers in the Law Office	3
Additional General Education courses (up to 6 hours) (p. 595)		

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Paralegals and Legal Assistants

Job Description

Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$47,685
Median 50th Percentile	$67,921
Senior-Level 90th Percentile	$111,625

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$33
Senior-Level 90th Percentile	$54

Annual Job Openings

855 annual openings in Cook County

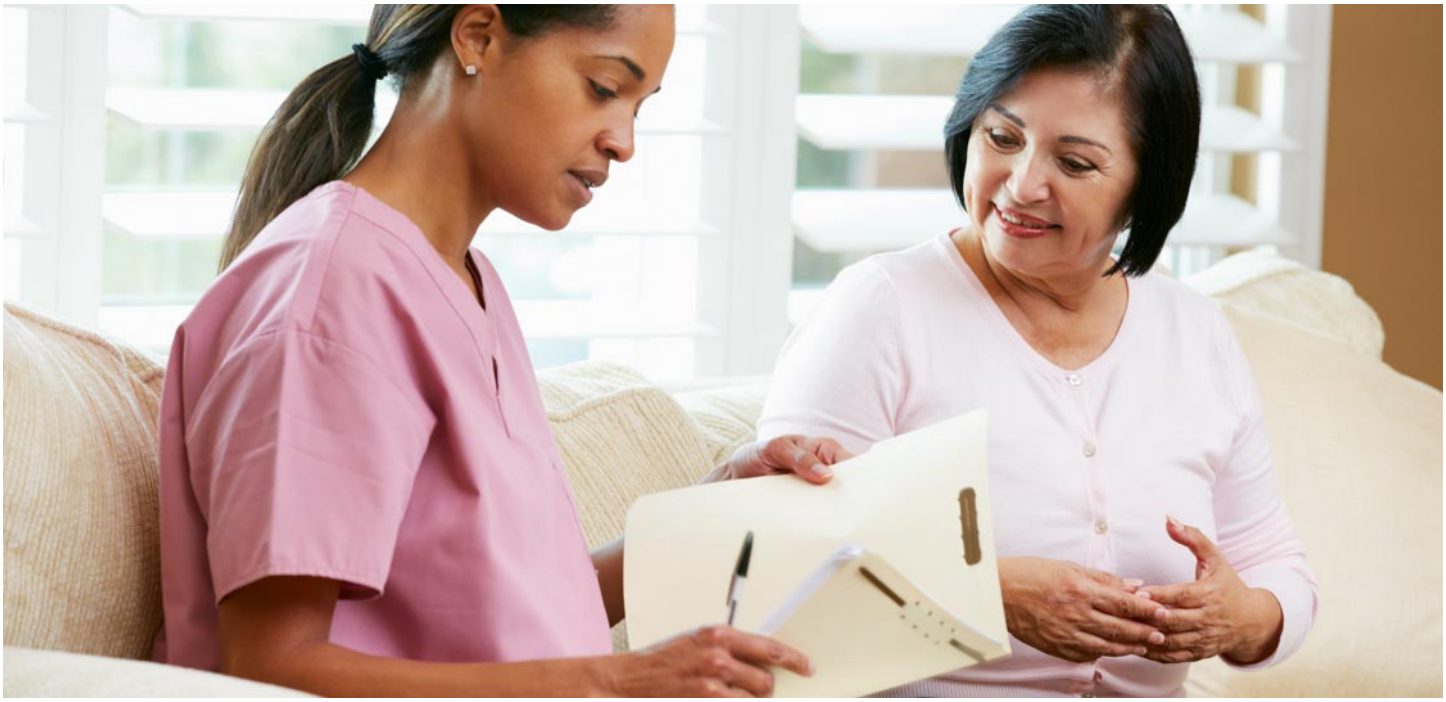
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	18.62%
A certificate	2.43%
Some college	2.34%
An Associate degree	20.08%
A Bachelor's degree	46.50%
A Master's or Professional degree	0.00%
A Doctoral degree or more	10.03%

56.53% continue their education beyond an associate degree

Patient Care Technician, Basic Certificate



College(s): MX

Program Code: 0396

The Patient Care Technician basic certificate provides the educational background required for pursuing a career in the healthcare industry. The curriculum covers the foundational knowledge, skills, and abilities needed to function as an entry level healthcare provider. The program focuses on student development in the following competencies essential to all healthcare providers: effective communication, accountability, cultural competence, use of information systems, and patient safety. Upon completion of the BC, students will demonstrate that they can deliver safe, culturally-competent, and evidence-based patient care.

For more information about the Patient Care Technician program at Malcolm X College, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Patient-Care-Technician--Health-Professions-.aspx).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
STHLTH 174	Patient Care Technician Training	8
STHLTH 624	BNA Fundamentals/Clinical	8
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in health professions. If this pathway is followed as outlined, you will earn a Patient Care Technician Basic Certificate (BC). This does not represent a contract nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
STHLTH 174	Patient Care Technician Training	8
STHLTH 624	BNA Fundamentals/Clinical	8
	Hours	**16**
	Total Hours	**16**

Choose your courses with your College Advisor.

Phlebotomists

Job Description

Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,671
Median 50th Percentile	$48,177
Senior-Level 90th Percentile	$54,094

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$26

Annual Job Openings

406 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.82%
A certificate	45.45%
Some college	13.64%
An Associate degree	4.55%
A Bachelor's degree	4.55%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.55% continue their education beyond an associate degree

Medical Assistants

Job Description

Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,870
Median 50th Percentile	$45,298
Senior-Level 90th Percentile	$55,447

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$27

Annual Job Openings

1386 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	20.54%
A certificate	44.74%
Some college	17.20%
An Associate degree	0.05%
A Bachelor's degree	17.47%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

17.47% continue their education beyond an associate degree

Nursing Assistants

Job Description

Provide or assist with basic care or support under the direction of onsite licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,949
Median 50th Percentile	$47,742
Senior-Level 90th Percentile	$54,467

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$26

Annual Job Openings

3879 annual openings in Cook County

National Education Attainment

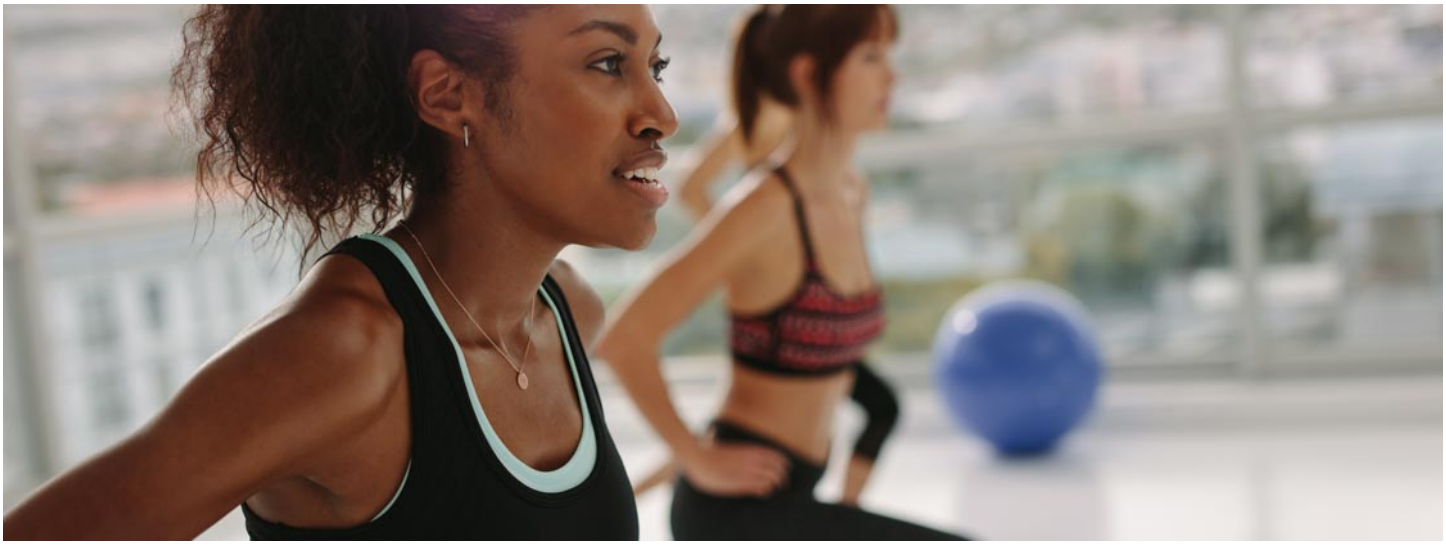
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	41.36%
A certificate	23.98%
Some college	12.20%
An Associate degree	9.82%
A Bachelor's degree	6.10%
A Master's or Professional degree	6.55%
A Doctoral degree or more	0.00%

12.65% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Personal Fitness Trainer, Basic Certificate



College(s): MX

Program Code: 0397

The Basic Certificate program provides students with the educational background required for pursuing a career in the health and fitness industry. The curriculum provides the basic foundational skills needed to assess human body mechanics and the ability to develop and implement exercise training programs designed to improve and maintain health-related components of fitness and performance. This knowledge will prepare students to achieve personal trainer certification from the National Academy of Sports Medicine (NASM). Employment opportunities with this certification include personal trainer, group exercise instructor, and/or entry-level positions available at corporate or community fitness centers (i.e. health clubs, hospital fitness centers, YMCA, community recreational centers, etc.).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
ESSS 101	Personal Trainer Preparation	4
ESSS 112	Functional Anatomy & Kinesiology	5
PSYCH 201	General Psychology	3
Required Work-Based Learning Courses		
ESSS 102	Personal Trainer Practicum	2
Total Hours		**17**

Pathway

This is an **example course sequence** for students interested in earning a certificate in personal fitness training. If pathway is followed as outlined, student will earn a Basic Certificate (BC) in Personal Fitness Trainer. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
ESSS 101	Personal Trainer Preparation	4
ESSS 102	Personal Trainer Practicum	2
ESSS 112	Functional Anatomy & Kinesiology	5
	Hours	**17**
	Total Hours	**17**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Exercise Trainers and Group Fitness Instructors

Job Description

Instruct or coach groups or individuals in exercise activities for the primary purpose of personal fitness. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills. Develop and implement individualized approaches to exercise.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$30,735
Median 50th Percentile	$53,459
Senior-Level 90th Percentile	$107,795

Hourly Wages

Entry-Level 10th Percentile	$15
Median 50th Percentile	$26
Senior-Level 90th Percentile	$52

Annual Job Openings

2174 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	14.29%
A certificate	57.14%
Some college	4.76%
An Associate degree	9.52%
A Bachelor's degree	9.52%
A Master's or Professional degree	4.76%
A Doctoral degree or more	0.00%

14.28% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Pharmacy Technology, Advanced Certificate

College(s): MX

Program Code: 0254

Pharmacy technicians assist and support licensed pharmacists in providing health care and medications to patients. They may perform many of the same duties as pharmacists, but all technicians' work must be checked by a pharmacist before medication is dispensed. While pharmacy technicians can work everywhere pharmacists work, some state laws may limit the duties they perform. A special application is required for entry into the program. Upon acceptance into the program, students must provide proof of current health insurance and recent medical examination.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Pharmacy Technology Program, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Pharmacy-Technology.aspx).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
PHAR TC 131	Pharmacology I	2
PHAR TC 132	Pharmacology II	2
PHAR TC 133	Pharmacology Lab	1
PHAR TC 134	Pharmacy Practice	2
PHAR TC 135	Pharmacy Calculations	3
PHAR TC 136	Prescription Processing	1
PHAR TC 137	Pharmacy Communication	2
PHAR TC 138	Intro To Pharmacy Law	1
PHAR TC 141	Sterile Processing	4
PHAR TC 142	Non-Sterile Processing	2
PHAR TC 143	Advanced Practice	2
Required Work-Based Learning Courses		
PHAR TC 204	Retail/Outpatient Clinical	4
PHAR TC 205	Inpatient Clinical	4
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in Pharmacy Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Pharmacy Technology.

The Advanced Certificate program in Pharmacy Technology prepares students for employment as Pharmacy Technicians. The program is accredited by the American Society of Health-System Pharmacists and Accreditation Council for Pharmacy Education. Pharmacy technicians assist and support licensed pharmacists in providing health care and medications to patients. They may perform many of the same duties as pharmacists, but all technicians' work must be checked by a pharmacist before medication is dispensed. While Pharmacy Technicians can work everywhere pharmacists work, some state laws may limit the duties they perform.

Prospective students must apply for admission into the Pharmacy Technology program.

For more information on the Pharmacy Technology Program, please call (312) 850-7385.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
First 8 weeks		
PHAR TC 131	Pharmacology I	2
PHAR TC 134	Pharmacy Practice	2
PHAR TC 135	Pharmacy Calculations	3
PHAR TC 136	Prescription Processing	1
PHAR TC 137	Pharmacy Communication	2
PHAR TC 138	Intro To Pharmacy Law	1
Second 8 weeks		
PHAR TC 132	Pharmacology II	2
PHAR TC 133	Pharmacology Lab	1
PHAR TC 204	Retail/Outpatient Clinical	4
	Hours	**18**
Semester 2		
First 8 weeks		
PHAR TC 141	Sterile Processing	4
PHAR TC 142	Non-Sterile Processing	2
PHAR TC 143	Advanced Practice	2
Second 8 weeks		
PHAR TC 205	Inpatient Clinical	4
	Hours	**12**
	Total Hours	**30**

Choose your courses with your College Advisor.

Program Admission Requirements

Applicants are eligible to apply online after the following is completed:

- Submit official college transcripts from all accredited colleges attended outside of City Colleges of Chicago.
- Eligible for ENGLISH 101 (https://catalog.ccc.edu/search/?P=ENGLISH%20101) Composition
- Eligible for college-level Math

Note: Students who have National Certification as a Pharmacy Technician can apply for Credit for Prior Learning (College Credit Opportunities at City Colleges of Chicago - CCC (https://colleges.ccc.edu/cpl/)) for some of the courses in the Advanced Certificate.

For more information on admissions requirements and the application process, visit the Pharmacy Technology webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Pharmacy-Technology.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Pharmacy Technicians

Job Description

Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,108
Median 50th Percentile	$44,798
Senior-Level 90th Percentile	$56,508

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$27

Annual Job Openings

830 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	35.73%
A certificate	41.97%
Some college	14.63%
An Associate degree	3.83%
A Bachelor's degree	3.84%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

3.84% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Phlebotomy, Basic Certificate

College(s): MX

Program Code: 0219

The BC in Phlebotomy leads to certification through the National Phlebotomy Association (NPA), the American Society of Clinical Pathologists (ASCP), and the American Society of Phlebotomy Technicians (ASPT). The phlebotomist is an entry level health care worker who serves as the direct link between the patient and the laboratory. The position is responsible for drawing both venous and arterial blood specimens from patients and sending blood to the laboratory. In some cases, physician approval is required. The laboratory technologist relies on the integrity and accuracy of the phlebotomist in procuring the proper specimens; accurate diagnosis of a patient's condition can depend on quality work. Phlebotomists can further their education and become laboratory technicians or technologists.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Phlebotomy program at Malcolm X College, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Phlebotomy.aspx).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Work-Based Learning Courses		
BIOLOGY 120	Terminology For Medical Careers	3
PHLEB 108	Phlebotomy Seminar I	2
PHLEB 110	Phlebotomy Practicum	3
PHLEB 208	Phlebotomy Seminar II	3
PHLEB 210	Phlebotomy Clinical	5
Total Hours		**16**

Pathway

This is an **example course sequence** for students interested in Phlebotomy. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Phlebotomy. The Basic Certificate program in Phlebotomy leads to certification through the National Phlebotomy Association (NPA), the American Society of Clinical Pathologists (ASCP), and the American Society of Phlebotomy Technicians (ASPT).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
First 8 Weeks		
BIOLOGY 120	Terminology For Medical Careers	3
PHLEB 108	Phlebotomy Seminar I	2
PHLEB 110	Phlebotomy Practicum	3
Second 8 Weeks		
PHLEB 208	Phlebotomy Seminar II	3
PHLEB 210	Phlebotomy Clinical	5
	Hours	**16**
	Total Hours	**16**

Choose your courses with your College Advisor.

Program Admission Requirements

- Submit a complete application to the Phlebotomy program
- Provide an official high school transcript or GED certificate showing date of graduation or completion
- Prerequisites: ENGLISH 96 Aligned Reading and Composition eligibility

Students that meet all of the minimum admission requirements listed above will be considered by the program director for admission into the Phlebotomy program. Please note that admission is highly competitive and that not all students who meet these minimum requirements will be admitted. Students are advised to carefully prepare their application, giving special attention to content and format. Applications for the program are accepted March through May for Fall semester and September through December for Spring semester. The program is offered every Fall and Spring semester. For more information on the Phlebotomy program, call (312) 850-7375.

For information on the application and admissions process, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Phlebotomy.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Phlebotomists

Job Description

Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$38,671
Median 50th Percentile	$48,177
Senior-Level 90th Percentile	$54,094

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$23
Senior-Level 90th Percentile	$26

Annual Job Openings

406 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.82%
A certificate	45.45%
Some college	13.64%
An Associate degree	4.55%
A Bachelor's degree	4.55%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

4.55% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Physical Therapist Assistant, Associate in Applied Science

College(s): MX

Program Code: 0406

The Physical Therapist Assistant curriculum provides graduates to be employed in direct patient care settings under the supervision of a licensed physical therapist. Physical therapy assistants work to progress or return function by alleviation or prevention of physical impairment and perform other essential activities in a physical therapy setting. Coursework includes human anatomy and physiology, the consequences of disease or injury, and physical therapy treatment of a variety of patient conditions affecting humans throughout the life span. Clinical education is provided at cooperating hospitals, public health facilities, and private physical therapy centers. Students entering clinical externships may be required to provide a criminal background check and drug screening test before or during each rotation. Upon completion of the program, students must sit for and pass the Physical Therapist Assistant licensure exam, administered by the Illinois Department of Financial and Professional Regulations, in order to be employed and practice in the field. Employment opportunities for physical therapy assistants include hospitals, physician offices, physical therapy clinics, and private practices.

The Physical Therapist Assistant Program at Malcolm X College is accredited by the:

Commission on Accreditation in Physical Therapy Education (CAPTE)
3030 Potomac Ave., Suite 100
Alexandria, Virginia 22305-3085
telephone: 800-999-2782
email: accreditation@apta.org
website: http://www.capteonline.org (http://www.capteonline.org/)

If needing to contact the program/institution directly, please call 312-850-7021 or email edicapo@ccc.edu.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Physical Therapist Assistant program at Malcolm X College, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Physical-Therapist-Assistant.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition (or higher General Education English course)	3
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology Human Structure and Function I and Human Structure and Function II	4
General Education	Mathematics Course (Math 118 recommended)	3
PHYSICS 131	Mechanics And Power (or higher General Education Physics class)	3
PSYCH 201	General Psychology (or higher General Education Psychology course)	3
Required Program Core		
PTA 110	Introduction to Physical Therapy	2
PTA 140	Health Promotion & Wellness I	1
PTA 150	Therapeutic Procedures I	3
PTA 160	Orthopedic Practice & Exercise	4
PTA 170	Therapeutic Procedures II	3
PTA 171	Cardiopulmonary & Vascular Practice	2

PTA 200	Pathophysiology & Complex Systems	2
PTA 201	Neuromuscular Rehabilitation	3
PTA 220	Physical Therapy Across the Lifespan	2
PTA 240	Health Promotion & Wellness II	2
ESSS 101	Personal Trainer Preparation	4
ESSS 103	Allied Health Clinical Skills	2
ESSS 112	Functional Anatomy & Kinesiology	5
Required Work-Based Learning Courses		
ESSS 102	Personal Trainer Practicum	2
PTA 211	PTA Clinical Education I	7
PTA 260	Advanced PTA Clinical Education	7
Total Hours		**67**

Pathway

This is an **example course sequence** for students interested in the Physical Therapist Assistant program. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science degree in Physical Therapist Assistant.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
Fall/Spring		
ESSS 101	Personal Trainer Preparation	4
ESSS 102	Personal Trainer Practicum	2
ESSS 112	Functional Anatomy & Kinesiology	5
ENGLISH 101	Composition [1,6]	3
	Hours	**14**
Semester 2		
Fall/Spring		
ESSS 103	Allied Health Clinical Skills	2
BIOLOGY 116	Introduction to Anatomy And Physiology [1,2]	4
MATH 118	General Education Math (or higher General Education Mathematics course) [1,3]	3-4
PSYCH 201	General Psychology [1,4]	3
PHYSICS 131	Mechanics And Power [1,5]	3
	Hours	**15-16**
Semester 3		
Summer		
PTA 110	Introduction to Physical Therapy	2
PTA 150	Therapeutic Procedures I	3
PTA 160	Orthopedic Practice & Exercise	4
	Hours	**9**
Semester 4		
Fall		
PTA 140	Health Promotion & Wellness I	1
PTA 170	Therapeutic Procedures II	3
PTA 171	Cardiopulmonary & Vascular Practice	2
PTA 201	Neuromuscular Rehabilitation	3
PTA 211	PTA Clinical Education I	7
	Hours	**16**
Semester 5		
Spring		
PTA 200	Pathophysiology & Complex Systems	2
PTA 220	Physical Therapy Across the Lifespan	2
PTA 240	Health Promotion & Wellness II	2
PTA 260	Advanced PTA Clinical Education	7
	Hours	**13**
	Total Hours	**67-68**

1 General Education Requirement
2 Biology 226 and Biology 227 may substitute for this requirement.
3 Or higher-level general education math course
4 Or higher-level general education psychology course
5 Or higher-level general education physics course
6 Or higher-level general education English class

Choose your courses with your College Advisor.

Program Admission Requirements

The program is very competitive, and having the minimum requirements does not indicate that you will be accepted into the program. Students having less than minimum requirements will not be considered. In order to enter the program students must:

- Be at least 18 years of age
- Graduate from an accredited high school or earn a GED
- Meet general admissions requirements for Malcolm X College including successful completion of all prerequisite courses for the Physical Therapist Assistant program
- Have a minimum cumulative GPA of 2.5 in all college-level work
- Official college transcripts from all colleges attending outside of City Colleges of Chicago. All transcripts should be submitted to the Malcolm X College Office of Registrar Services (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Registrar.aspx).
- Grade of "C" or better in:

Code	Title	Hours
ENGLISH 101	Composition (or higher General Education English course) [1]	3
General Education Mathematics course (Math 118 recommended)		3
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology [2] Human Structure and Function I and Human Structure and Function II	4
PSYCH 201	General Psychology (or higher General Education Psychology course) [1]	3
PHYSICS 131	Mechanics And Power (or higher General Education Physics course) [1]	3
ESSS 101	Personal Trainer Preparation	4
ESSS 102	Personal Trainer Practicum	2
ESSS 103	Allied Health Clinical Skills	2
ESSS 112	Functional Anatomy & Kinesiology	5

1 "or higher" effective Spring 2024
2 Effective Spring 2024, BIOLOGY 226 & 227 may be taken in place of BIOLOGY 116.

Background Check

Students entering most healthcare professions programs will be required to present documentation of health history and vaccination status, to undergo annual tuberculosis screening, to submit to a background check, to submit to initial and random drug screening, and to undergo fingerprinting prior to licensing with the state of Illinois. Students should consult with an advisor if any of these requirements are a concern.

For more information on admissions requirements and the application process, visit the Physical Therapist Assistant program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Physical-Therapist-Assistant.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Physical Therapist Assistants

Job Description

Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with state laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$53,228
Median 50th Percentile	$64,157
Senior-Level 90th Percentile	$90,380

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$31
Senior-Level 90th Percentile	$43

Annual Job Openings

270 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	84.16%
A Bachelor's degree	14.88%
A Master's or Professional degree	0.97%
A Doctoral degree or more	0.00%

15.85% continue their education beyond an associate degree

Plumbing and Fire Protection, Basic Certificate

College(s): KK

Program Code: 0753

The Basic Certificate program in Plumbing and Fire Protection program is designed to introduce students to plumbing and sprinkler systems through theory and hands on work. Upon successful completion, graduates will be qualified to work as a plumber's assistant and or fitter assistant.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
332TECH 432	Basic Arc Welding	2
332TECH 434	Introduction To Plumbing	3
332TECH 435	Plumbing Tools & Equipment	2
332TECH 436	Plumbing Codes	1
332TECH 437	Basic Plumbing Related Math	1
332TECH 438	Intro To Fire Protection	3
332TECH 439	Home Plumbing System	4
332TECH 449	Professional Development	2
332TECH 472	Vocational Physical Training	2
432CMGT 609	Construction Safety II	3
432CMGT 604	Blueprint and Specifications	3
CIS 120	Introduction to Computer Applications	3
Total Hours		**29**

Pathway

This is an **example course sequence** for students interested in plumbing and fire protection. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Plumbing and Fire Protection. This does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students - effective Fall 2023

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
PHASE 1		
432CMGT 609	Construction Safety II	3
CIS 120	Introduction to Computer Applications	3
332TECH 434	Introduction To Plumbing	3
332TECH 435	Plumbing Tools & Equipment	2
332TECH 437	Basic Plumbing Related Math	1
332TECH 436	Plumbing Codes	1
PHASE 2		
332TECH 432	Basic Arc Welding	2
332TECH 438	Intro To Fire Protection	3
332TECH 439	Home Plumbing System	4
332TECH 449	Professional Development	2
332TECH 472	Vocational Physical Training	2
432CMGT 604	Blueprint and Specifications	3
	Hours	**29**
	Total Hours	**29**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional

guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters

Job Description

Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$34,882
Median 50th Percentile	$46,753
Senior-Level 90th Percentile	$69,165

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$33

Annual Job Openings

34 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	54.29%
A certificate	26.83%
Some college	9.18%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	9.69%
A Doctoral degree or more	0.00%

9.69% continue their education beyond an associate degree

Practical Nursing, Advanced Certificate

College(s): MX

Program Code: 0240

The Advanced Certificate program in Practical Nursing provides students with a basic knowledge of nursing theory and practice. Graduates of the practical nursing program meet the educational requirements for the National Council Licensure Examination for Practical Nurses (NCLEX-PN) to become a licensed practical nurse (LPN). Graduates of the program may transfer their credits to an associate or bachelor degree nursing program. If more applicants apply than the program can accept, the most qualified applicants will be accepted.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Practical Nursing AC at Malcolm X College, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Nursing-Department.aspx).

Program Requirements

Code	Title	Hours
ENGLISH 101	Composition	3
BIOLOGY 120	Terminology For Medical Careers	3
BIOLOGY 121	Biology I	5
BIOLOGY 226	Human Structure and Function I	4
BIOLOGY 227	Human Structure and Function II	4
MATH 118	General Education Math (or higher gen ed math course)	4
NURSING 150	Nursing Fundamentals I	4
NURSING 151	Nursing Fundamentals II	4
NURSING 152	Nursing Perspectives	2
NURSING 153	Nursing Thru Life Span 1	5
NURSING 158	Nursing Thru Life Span II	2.5
NURSING 159	Nursing Thru Life Span III	2.5
NURSING 160	Nursing Thru Life Span IV	6
Total Hours		**49**

Pathway

This is an **example course sequence** for students interested in nursing. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC) in Practical Nursing.

The Advanced Certificate program in Practical Nursing provides students with a basic knowledge of nursing theory and practice. Graduates of the practical nursing program meet the educational requirements for the National Council Licensure Examination for Practical Nurses (NCLEX-PN) to become a licensed practical nurse (LPN). Graduates of the program may transfer their credits to an associate or bachelor degree nursing program. If more applicants apply than the program can accept, the most qualified applicants will be accepted.

Prospective students must apply for admission into the Practical Nursing program.

Semester-by-Semester Program Pan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition	3
BIOLOGY 121	Biology I	5
BIOLOGY 120	Terminology For Medical Careers	3
MATH 118	General Education Math (or higher gen ed math course)	4
	Hours	**15**

Semester 2		
NURSING 150	Nursing Fundamentals I	4
NURSING 151	Nursing Fundamentals II	4
NURSING 152	Nursing Perspectives	2
BIOLOGY 226	Human Structure and Function I	4
	Hours	**14**
Semester 3		
NURSING 153	Nursing Thru Life Span 1	5
BIOLOGY 227	Human Structure and Function II	4
NURSING 158	Nursing Thru Life Span II	2.5
NURSING 159	Nursing Thru Life Span III	2.5
	Hours	**14**
Semester 4		
NURSING 160	Nursing Thru Life Span IV	6
	Hours	**6**
	Total Hours	**49**

Choose your courses with your College Advisor.

Program Admission Requirements

To be eligible to apply to the CCC Practical Nursing Program, a student must have successfully completed:

1. All four prerequisite courses:

Code	Title	Hours
Prerequisite Courses*		
BIOLOGY 120	Terminology For Medical Careers	3
BIOLOGY 121	Biology I (completed within the past 10 years)	5
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher)	4
Total Hours		**15**

* All prerequisite courses (4) must be completed prior to the posted online application deadline. Prerequisite courses (4) include (with a "C" or higher)

2. Submit high school diploma or GED transcripts to the Office of the Registrar at Malcolm X College.
3. Program Application
4. Submit official college transcripts to the Office of the Registrar at Malcolm X College.
5. Proof of eligibility for college level mathematics by coursework or placement test
6. **ATI TEAS Exam:**
   a. Minimum Cumulative Score: 60%
   b. Minimum Reading Score: 70%
7. Cumulative GPA of 2.5

Background Check

Students entering most healthcare professions programs will be required to present documentation of health history and vaccination status, to undergo annual tuberculosis screening, to submit to a background check, to submit to initial and random drug screening, and to undergo fingerprinting prior to licensing with the state of Illinois. Students should consult with a College Advisor if any of these requirements are a concern.

For more information on admissions requirements and the application process, visit the Nursing Department webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Nursing-Department.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Licensed Practical and Licensed Vocational Nurses

Job Description

Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$52,435
Median 50th Percentile	$71,055
Senior-Level 90th Percentile	$89,863

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$34
Senior-Level 90th Percentile	$43

Annual Job Openings

628 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	34.77%
Some college	38.24%
An Associate degree	15.90%
A Bachelor's degree	11.09%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

11.09% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Radiography, Associate in Applied Science

College(s): MX

Program Code: 0246

The AAS in Radiography is the study of the theory, technical skills, patient care, and techniques necessary to use radiation in the diagnosis of disease. Completion of the program can lead to employment as an x-ray technologist or radiographer in private and public hospitals, clinics, and laboratories. The AAS degree in Radiography provides the necessary professional skills, progressive maturity, and the intellectual, social, and emotional values necessary for a graduate to be a trustworthy member of the healthcare team.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Radiography program at Malcolm X College, visit the program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Radiography.aspx).

Program Requirements

Code	Title	Hours
Program Prerequisites		
MATH 118	General Education Math (or higher Mathematics course)	
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	
HEAPRO 102	Health Career Studies [2]	
General Education Coursework		
ENGLISH 101	Composition	3
PHYSICS 131	Mechanics And Power (or higher)	3
PSYCH 201	General Psychology	3
SPANISH 193	Spanish for Radiography [3]	3
Required Program Core		
RADIOGR 101	Intro To Radiation Sciences	2
RADIOGR 102	Attitudes In Patient Care	2
RADIOGR 105	Imaging Physics	4
RADIOGR 115	Basic Prins Of Image Produc	3
RADIOGR 124	Intro To Patient Care	2
RADIOGR 128	Image Evaluation	1
RADIOGR 131	Radiographic Procedures I	2
RADIOGR 140	Intro To Clinical Education	3
RADIOGR 141	Radiography Clinical Education I	3
RADIOGR 200	Pathology	4
RADIOGR 202	Radiology Management	1
RADIOGR 205	Applied Radiographic Techniques	3
RADIOGR 206	Imaging	2
RADIOGR 208	Radiobiology	3
RADIOGR 232	Radiographic Procedures II	4
RADIOGR 233	Radiographic Procedures III	4
RADIOGR 234	Special Radiographic Procedure	2
RADIOGR 242	Radiography Clinical Ed II	4
RADIOGR 243	Radiography Clinical Education III	4
RADIOGR 244	Radiography Clinical Education IV	4
Total Hours		**69**

[1] BIOLOGY 226 Human Structure and Function I *and* BIOLOGY 227 Human Structure and Function II may substitute
[2] BIOLOGY 120 Terminology For Medical Careers may substitute
[3] Or other HD general education course (p. 605)

At least one course must meet the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in earning a degree in Radiography. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) Degree in Radiography.

Upon completion of the program of study, graduates become eligible to take the national certification exam offered by the American Registry of Radiologic Technologists (ARRT). In addition, graduates may apply for a license from the Illinois Emergency Management Agency/Division of Nuclear Safety.

Prospective students must apply for admission into the Radiography program.

FALL COHORT - Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
Fall		
RADIOGR 101	Intro To Radiation Sciences	2
RADIOGR 102	Attitudes In Patient Care	2
RADIOGR 115	Basic Prins Of Image Produc	3
RADIOGR 124	Intro To Patient Care	2
ENGLISH 101	Composition [1]	3
	Hours	**12**
Semester 2		
Spring		
RADIOGR 105	Imaging Physics	4
RADIOGR 128	Image Evaluation	1
RADIOGR 131	Radiographic Procedures I	2
RADIOGR 140	Intro To Clinical Education	3
PHYSICS 131	Mechanics And Power [1]	3
	Hours	**13**
Semester 3		
Summer		
RADIOGR 141	Radiography Clinical Education I	3
RADIOGR 232	Radiographic Procedures II	4
	Hours	**7**
Semester 4		
Fall		
RADIOGR 205	Applied Radiographic Techniques	3
RADIOGR 208	Radiobiology	3
RADIOGR 233	Radiographic Procedures III	4
RADIOGR 242	Radiography Clinical Ed II	4
PSYCH 201	General Psychology [1]	3
	Hours	**17**
Semester 5		
Spring		
RADIOGR 200	Pathology	4
RADIOGR 206	Imaging	2
RADIOGR 234	Special Radiographic Procedure	2
RADIOGR 243	Radiography Clinical Education III	4
SPANISH 193	Spanish for Radiography (HD)	3
	Hours	**15**
Semester 6		
Summer		
RADIOGR 202	Radiology Management	1
RADIOGR 244	Radiography Clinical Education IV	4
	Hours	**5**
	Total Hours	**69**

[1] General Education Requirement

SPRING COHORT - Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
Spring		
RADIOGR 101	Intro To Radiation Sciences	2
RADIOGR 102	Attitudes In Patient Care	2
RADIOGR 115	Basic Prins Of Image Produc	3
RADIOGR 124	Intro To Patient Care	2
ENGLISH 101	Composition [1]	3
	Hours	**12**
Semester 2		
Summer		
RADIOGR 131	Radiographic Procedures I	2
RADIOGR 140	Intro To Clinical Education	3
	Hours	**5**
Semester 3		
Fall		
RADIOGR 105	Imaging Physics	4
RADIOGR 128	Image Evaluation	1
RADIOGR 141	Radiography Clinical Education I	3
RADIOGR 232	Radiographic Procedures II	4
PHYSICS 131	Mechanics And Power (or higher) [1]	3
	Hours	**15**
Semester 4		
Spring		
RADIOGR 205	Applied Radiographic Techniques	3
RADIOGR 208	Radiobiology	3
RADIOGR 233	Radiographic Procedures III	4
RADIOGR 242	Radiography Clinical Ed II	4
PSYCH 201	General Psychology [1]	3
	Hours	**17**
Semester 5		
Summer		
RADIOGR 200	Pathology	4
RADIOGR 243	Radiography Clinical Education III	4
	Hours	**8**
Semester 6		
Fall		
RADIOGR 202	Radiology Management	1
RADIOGR 206	Imaging	2
RADIOGR 234	Special Radiographic Procedure	2
RADIOGR 244	Radiography Clinical Education IV	4
SPANISH 193	Spanish for Radiography (HD)	3
	Hours	**12**
	Total Hours	**69**

[1] General Education Requirement

Choose your courses with your College Advisor.

Program Admission Requirements

The program is very competitive, and having the minimum requirements does not indicate that you will be accepted into the program. Students

having less than minimum requirements will not be considered. In order to enter the program students must:

- 18 years of age or older
- Grade of "C" or better in:

Code	Title	Hours
MATH 118	General Education Math (or higher Mathematics course)	4
BIOLOGY 116	Introduction to Anatomy And Physiology [1]	4
HEAPRO 102	Health Career Studies [2]	3

[1] BIOLOGY 226 Human Structure and Function I *and* BIOLOGY 227 Human Structure and Function II may substitute
[2] BIOLOGY 120 Terminology For Medical Careers may substitute

- Official college transcripts
- 2.7 College GPA
- Complete the application packet
- For application details, please visit the Radiography page on www.ccc.edu (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Radiography.aspx)

Students that meet all of the minimum admission requirements listed above will be scheduled for an interview with the program director. Students that complete this interview will be considered for admission to the program. Please note that admission is highly competitive and that not all students who are interviewed will be admitted. Students are advised to prepare for the interview, to arrive early, and to dress appropriately for a professional interview. Students are also advised to carefully prepare their application, giving special attention to content and format.

Background Check

Students entering most healthcare professions programs will be required to present documentation of health history and vaccination status, to undergo annual tuberculosis screening, to submit to a background check, to submit to initial and random drug screening, and to undergo fingerprinting prior to licensing with the state of Illinois. Students should consult with an advisor if any of these requirements are a concern.

Physical Requirements Needed for Successful Performance in the Clinical Area

A person working in the field as a radiographer may be required to perform many extraneous and laborious tasks. Patient care in the clinical area requires excellent communication and language skills.

Therefore all students must be able to:

- Stand on their feet for approximately 8 hours.
- Push and/or pull patients with weights that may exceed 200 lbs.
- Communicate in English well enough so that you can be understood by others, and others can understand you.
- Execute both hand and pedal dexterity.
- Give directions and respond to patient requests.
- Operate portable equipment.
- Visually critique a film.
- Exhibit good hearing ability and is able to exercise good body mechanics.
- Lift and carry various accessory equipment.

For more information on admissions and the application process, visit the Radiography program webpage (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Radiography.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Radiologic Technologists and Technicians

Job Description

Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes. Includes radiologic technologists and technicians who specialize in other scanning modalities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$64,269
Median 50th Percentile	$84,643
Senior-Level 90th Percentile	$111,870

Hourly Wages

Entry-Level 10th Percentile	$31
Median 50th Percentile	$41
Senior-Level 90th Percentile	$54

Annual Job Openings

172 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	16.52%

Some college	0.00%
An Associate degree	72.85%
A Bachelor's degree	10.63%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.63% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Racial Healing Practitioner, Basic Certificate

College(s): KK

Program Code: 0458

The Racial Healing Practitioner Basic Certificate aims to jettison the false belief in a hierarchy of human value and replace that archaic notion with a reverence and appreciation for the equal and interconnected nature of the human family. The Racial Healing Practitioner Basic Certificate will cover the five components of the racial Healing Framework which are Narrative Change, Racial Healing, and Relationship Building, Separation, Law, and Economy. The ultimate goal of the Racial Healing Practitioner Basic Certificate is to expand the community of healers by training, empowering, and emboldening youth, and youth workers.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
SOC 241	Institutional Racism	3
SOC SER 101	Introduction To Social Work	3
SOC SER 108	Racial Healing Methodology	3
SOC SER 212	Introduction To Group Process	3
Required Work-Based Learning Course		
SOC SER 208	Racial Healing Practicum	1
Program Electives		
Select one of the following courses:		3
AFRO AM 101	Introduction to African-American Studies	
HISTORY 114	The Afro-American In American History	
HISTORY 115	Afro-American History Since 1865	
HISTORY 213	American Civil Rights Movement	
HISTORY 216	U.S. Latinx History	
SOC 209	The Black Man In The U S	
SOC 211	Race & Ethnic Relations	
SOC SCI 221	Black Economics	
Total Hours		**19**

Pathway

This is an example course sequence for students interested in pursuing a Racial Healing Practitioner certificate. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn the Racial Healing Practitioner Basic Certificate (BC).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition	3
SOC 241	Institutional Racism	3
SOC SER 101	Introduction To Social Work	3
SOC SER 108	Racial Healing Methodology	3
	Hours	**12**
Semester 2		
SOC SER 208	Racial Healing Practicum	1
SOC SER 212	Introduction To Group Process	3
Select one of the following courses:		3
AFRO AM 101	Introduction to African-American Studies	
HISTORY 114	The Afro-American In American History	
HISTORY 115	Afro-American History Since 1865	
HISTORY 213	American Civil Rights Movement	
HISTORY 216	U.S. Latinx History	

SOC 209	The Black Man In The U S	
SOC 211	Race & Ethnic Relations	
SOC SCI 221	Black Economics	
	Hours	**7**
	Total Hours	**19**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Respiratory Care, Associate in Applied Science

College(s): MX

Program Code: 0234

The A.A.S. in Respiratory Care will prepare the student to become a well-rounded, competent professional entry level Respiratory Therapist who is eligible to pursue the Registered Respiratory Therapist (RRT) credential in Respiratory Care. Upon A.A.S. degree completion, the graduate is eligible to take the National Board for Respiratory Care's Therapist Multiple Choice (TMC), Examination. The graduate must pass this exam at the 'low cut score' to receive the credential of Certified Respiratory Therapist (CRT). This credential allows the CRT to apply for a state license. Once the graduate passes the TMC at the 'high cut score', they can then progress to the Clinical Simulation Examination (CSE), to complete their RRT credential.

Successful completion of the program can lead to employment as a respiratory therapist in hospitals, clinics or home settings or branch off into research, sales, education or other career opportunities.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information about the Respiratory Care program at Malcolm X College, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Respiratory-Care.aspx).

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition [1]	3
BIOLOGY 116	Introduction to Anatomy And Physiology	4
or BIOLOGY 226 & BIOLOGY 227	Human Structure and Function I and Human Structure and Function II	
MATH 125	Introductory Statistics	4
Fine Arts & Humanities course		3
Social and Behavioral Sciences course		3
Required Program Core		
RESP TC 114	Basic Respiratory Care	4
RESP TC 115	Cardiopulmonary/Renal Anatomy & Physiology	3
RESP TC 116	Patient Assessment	2
RESP TC 117	Respiratory Pharmacology	1
RESP TC 118	Basic Sciences and Infection Control	2
RESP TC 119	Respiratory Care Lab I	3
RESP TC 137	Advanced Pathology & Clinical Application	3
RESP TC 139	Respiratory Care Lab II	2
RESP TC 141	Ventilatory-Mechanics I	3
RESP TC 146	Ventilatory Mechanics II	3
RESP TC 201	Advanced Respiratory Topics & Research	4
RESP TC 225	Age Specific Care	3
RESP TC 227	Critical Care Services	4
RESP TC 230	Advanced Cardiopulmonary Monitoring	3
RESP TC 250	Cardiopulmonary Rehabilitation Home Care	1

RESP TC 260	Advanced Specialty Topics	3
Work-Based Learning Courses		
RESP TC 127	Clinical Practice I	2
RESP TC 129	Clinical Practice II	3
RESP TC 222	Clinical Practice III	4
RESP TC 224	Clinical Practice IV	4
Total Hours		**74**

[1] One course must fulfill the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in earning a degree in Respiratory Care. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Applied Science Degree (AAS) in Respiratory Care.

Prospective students must apply for admission into the Respiratory Care program.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics	4
Fine Arts & Humanities course [1]		3
BIOLOGY 116 or BIOLOGY 226 ***and*** BIOLOGY 227	Introduction to Anatomy And Physiology [2,3] or Human Structure and Function I ***and*** Human Structure and Function II	4
	Hours	**14**
Semester 2		
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**3**
Semester 3		
Fall I		
RESP TC 114	Basic Respiratory Care	4
RESP TC 115	Cardiopulmonary/Renal Anatomy & Physiology	3
RESP TC 116	Patient Assessment	2
RESP TC 117	Respiratory Pharmacology	1
RESP TC 118	Basic Sciences and Infection Control	2
RESP TC 119	Respiratory Care Lab I	3
	Hours	**15**
Semester 4		
Spring I		
RESP TC 127	Clinical Practice I	2
RESP TC 137	Advanced Pathology & Clinical Application	3
RESP TC 139	Respiratory Care Lab II	2
RESP TC 141	Ventilatory-Mechanics I	3
	Hours	**10**
Semester 5		
Summer I		
RESP TC 129	Clinical Practice II	3
RESP TC 146	Ventilatory Mechanics II	3
	Hours	**6**
Semester 6		
Fall II		
RESP TC 201	Advanced Respiratory Topics & Research	4
RESP TC 222	Clinical Practice III	4
RESP TC 225	Age Specific Care	3
RESP TC 227	Critical Care Services	4
	Hours	**15**
Semester 7		
Spring II		
RESP TC 224	Clinical Practice IV	4
RESP TC 230	Advanced Cardiopulmonary Monitoring	3
RESP TC 250	Cardiopulmonary Rehabilitation Home Care	1
RESP TC 260	Advanced Specialty Topics	3
	Hours	**11**
	Total Hours	**74**

[1] General Education Requirement
[2] Program Prerequisite
[3] BIOLOGY 227 Human Structure and Function II next semester

Choose your courses with your College Advisor.

Program Admission Requirements

Entry Requirements effective for students applying for Academic Year 2026-2027:

- 18 years of age or older
- Complete the application packet
- Grade of "C" or better in:

Code	Title	Hours
ENGLISH 101	Composition (or higher)	3
MATH 125	Introductory Statistics	4
BIOLOGY 116 or BIOLOGY 226 & BIOLOGY 227	Introduction to Anatomy And Physiology Human Structure and Function I and Human Structure and Function II	4

- 2.75 College GPA
- Official college transcripts
- Submit program application via the student portal (my.ccc.edu (https://cccihprd.ccc.edu/psp/cccihprd/EMPLOYEE/EMPL/h/?tab=Z_CCC_GUEST)). See program website (https://www.ccc.edu/colleges/malcolm-x/departments/pages/respiratory-care.aspx) for more details.[1]

[1] Students enrolled in prerequisite courses in current semester are eligible to apply to the Respiratory Care program, provided they can demonstrate a course grade of "C" or better. However, admission cannot be granted until all requirements are complete. Students that meet all of the minimum admission requirements listed above will be scheduled for an interview with the program admission committee. Students that complete this interview will be considered for admission to the program. Please note that admission is highly competitive and that not all students who are interviewed will be admitted. Students are advised to prepare for the interview, to arrive early, and to dress appropriately for a professional interview. Students are also advised to carefully prepare their application, giving special attention to content and format.

Background Check

Students entering most healthcare professions programs will be required to present documentation of health history and vaccination status, to undergo annual tuberculosis screening, to submit to a background check, to submit to initial and random drug screening, and to undergo fingerprinting prior to licensing with the state of Illinois. Students should consult with an advisor if any of these requirements are a concern.

For more information about the admissions requirements and application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Respiratory-Care.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Respiratory Therapists

Job Description

Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$67,985
Median 50th Percentile	$84,281
Senior-Level 90th Percentile	$100,435

Hourly Wages

Entry-Level 10th Percentile	$33
Median 50th Percentile	$41
Senior-Level 90th Percentile	$48

Annual Job Openings

138 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	5.15%
Some college	0.00%
An Associate degree	82.75%
A Bachelor's degree	12.10%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

12.10% continue their education beyond an associate degree

Social Work: Family Specialist Practitioner Basic Certificate

College(s): KK

Program Code: 0467

The Social Work Family Specialist Basic Certificate includes the study of the Generalist Approach to working with the individual, family, group, and community. The Family Specialist Advanced certification can lead to employment as a Family Specialist Practitioner in Early Childhood Centers, social service agencies, and primary school settings. Kennedy-King College has aligned its coursework with the Gateway for Opportunity Illinois Professional Development System credential requirements. Students who complete specific required courses can apply for Family Specialist Certification Levels 2 & 3, endorsed by Gateway for Opportunity Illinois Professional Development System.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
SOC SER 101	Introduction To Social Work	3
SOC SER 215	Social Prob & Soc Action I	3
or SOC 205	Social Problems	
SOC SER 228	Social Work with Families : Evidence Based Practice	3
or SOC 203	Sociology of Families and Intimate Relationships	
SOC SER 201	Principles of Social Work Practice	3
PSYCH 201	General Psychology	3
Total Hours		**25**

Pathway

This is an **example course sequence** for students interested in pursuing Social Work: Family Specialist Practitioner. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC) in Social Work: Family Specialist Practitioner.

Semester-Semester Program Plan for Full-Time Students

Semester 1		Hours
ENGLISH 101	Composition	3
CHLD DV 101	Human Growth & Development I	4
SOC SER 101	Introduction To Social Work	3
SOC SER 215 or SOC 205	Social Prob & Soc Action I or Social Problems	3
	Hours	**13**
Semester 2		
CHLD DV 102	Human Growth & Development II	3
SOC SER 228 or SOC 203	Social Work with Families : Evidence Based Practice or Sociology of Families and Intimate Relationships	3
PSYCH 201	General Psychology	3
SOC SER 201	Principles of Social Work Practice	3
	Hours	**12**
	Total Hours	**25**

All plans can be modified to fit the needs of part-time students by adding more semesters.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students

and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Social Work: Family Specialist Practitioner, Advanced Certificate

College(s): KK

Program Code: 0468

The Social Work Family Specialist Advance Certificate includes the study of the Generalist Approach to working with the individual, family, group, and community. The Social Work Family Specialist Advanced certification can lead to employment as a Family Specialist Practitioner in Early Childhood Centers, social service agencies, and primary school settings. The coursework aligns with the requirements for the Family Specialist Credential with the Gateway for Opportunity Illinois Professional Development System credential requirements. Students who complete specific required courses can apply for Family Specialist Certification Levels 2, 3 & 4, endorsed by Gateway for Opportunity Illinois Professional Development System.

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
CHLD DV 107	Health Safety And Nutrition	3
SOC SER 101	Introduction To Social Work	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 228	Social Work with Families : Evidence Based Practice	3
ENGLISH 101	Composition	3
PSYCH 201	General Psychology	3
Required Work-Based Learning Courses		
SOC SER 229	Social Service Practicum	6
Total Hours		**37**

Pathway

This is an **example course sequence** for students interested in pursuing Social Work: Family Specialist Practitioner. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC), and an Advanced Certificate (AC) in Social Work: Family Specialist Practitioner.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
SOC SER 101	Introduction To Social Work	3
CHLD DV 101	Human Growth & Development I	4
SOC SER 215 or SOC 205	Social Prob & Soc Action I or Social Problems	3
ENGLISH 101	Composition	3
	Hours	**13**
Semester 2		
SOC SER 201	Principles of Social Work Practice	3
SOC SER 228	Social Work with Families : Evidence Based Practice	3
CHLD DV 102	Human Growth & Development II	3
	Hours	**9**
Semester 3		
SOC SER 109	Report Writing for Social Service Aides	3
CHLD DV 107	Health Safety And Nutrition	3
PSYCH 201	General Psychology	3
	Hours	**9**

Semester 4		
SOC SER 229	Social Service Practicum	6
	Hours	**6**
	Total Hours	**37**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Social Work: Generalist, Associate in Applied Science

College(s): KK

Program Code: 0313

The Associate in Applied Science degree in Social Work includes the study of the generalist approach to working with the individual, family, group, and community. The degree can lead to employment as an aide to a social worker in government, community, or private social service agencies.

Program Requirements

Code	Title	Hours
General Education Coursework [1]		
ENGLISH 101	Composition	3
Additional General Education Courses [2]		12
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
CHLD DV 107	Health Safety And Nutrition	3
MENHLTH 223	Intro To Addictions Studies	3
SOC SER 101	Introduction To Social Work	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 228	Social Work with Families : Evidence Based Practice	3
or SOC SER 24	Principles Of Youth & Group Work	
Required Work-Based Learning Courses		
SOC SER 229	Social Service Practicum	6
Program Electives		
Select 14 credit hours [3]		14
Total Hours		**66**

1. At least one course must meet the Human Diversity (HD) requirement
2. Select an additional 12 hours of general education courses from Communications, Fine Arts & Humanities, Mathematics, Social & Behavioral Sciences, or Physical & Life Sciences.
3. Students are urged to take elective courses in Psychology, Sociology, Child Development, Anthropology, Criminal Justice, and Addiction Studies to become familiar with various approaches to individual, group, or societal problems. In addition, CIS 120 Introduction to Computer Applications and ENGLISH 102 Composition, are strongly recommended. Meet with a College Advisor for course selection.

This is an **example course sequence** for students interested in pursuing Social Work: Generalist. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn an Associate in Applied Science (AAS) in Social Work: Generalist. Depending on elective selections, students may also earn a Basic Certificate (BC) and Advanced Certificate (AC) in Social Work: Family Specialist Practitioner, a BC in Social Work: Youth Work, and/or a BC in Racial Healing Practitioner.

Semester 1		**Hours**
SOC SER 101	Introduction To Social Work	3
SOC SER 215	Social Prob & Soc Action I	3
CHLD DV 101	Human Growth & Development I	4
ENGLISH 101	Composition	3
PSYCH 201	General Psychology (or other General Education Course (p. 595)) [2]	3
Elective Course [3]		3
	Hours	**19**
Semester 2		
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 201	Principles of Social Work Practice	3
SOC SER 212	Introduction To Group Process	3

MENHLTH 223	Intro To Addictions Studies	3
General Education Course (HD) (p. 595) [1,2,7]		3
Elective Course [3,]		3
	Hours	**18**
Semester 3		
CHLD DV 102	Human Growth & Development II	3
CHLD DV 107	Health Safety And Nutrition	3
SOC SER 228 or SOC SER 248	Social Work with Families : Evidence Based Practice [4, 5] or Principles Of Youth & Group Work	3
General Education Course (p. 595) [2,7]		3
General Education Course (p. 595) [2,7]		3
	Hours	**15**
Semester 4		
SOC SER 229	Social Service Practicum	6
Additional credit hours of elective courses [3, 6]		8
	Hours	**14**
	Total Hours	**66**

1 At least one course must meet the Human Diversity (HD) requirement

2 Select an additional 12 hours of general education courses (p. 595) from Communications, Fine Arts & Humanities, Mathematics, Social & Behavioral Sciences, or Physical & Life Sciences.

3 Students are urged to take elective courses in Psychology, Sociology, Child Development, Anthropology, Criminal Justice, and Addiction Studies to become familiar with various approaches to individual, group, or societal problems. In addition, CIS 120 Introduction to Computer Applications and ENGLISH 102 Composition are strongly recommended. Meet with a College Advisor for course selection.

4 Students interested in earning the Basic (p. 427) or Advanced (p. 429) Certificates in Social Work: Family Specialist Practitioner should take SOC SER 228 Social Work with Families : Evidence Based Practice

5 Students interested in earning the Basic Certificate in Social Work: Youth Work (p. 435) should take SOC SER 248 Principles Of Youth & Group Work

6 Students interested in earning the Racial Healing Practitioner Basic Certificate (p. 422) should select their electives to include SOC SER 108 Racial Healing Methodology and SOC SER 208 Racial Healing Practicum

7 Students interested in earning the Racial Healing Practitioner Basic Certificate (p. 422) should select SOC 241 Institutional Racism and consult the program electives (p. 422) for the certificate for an additional general education selection.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Healthcare Social Workers

Job Description

Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family caregivers. Provide patients with information and counseling, and make referrals for other services. May also provide case and care management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$46,957
Median 50th Percentile	$72,950
Senior-Level 90th Percentile	$94,174

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$35
Senior-Level 90th Percentile	$45

Annual Job Openings

256 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	14.81%
A Master's or Professional degree	85.18%
A Doctoral degree or more	0.00%

99.99% continue their education beyond an associate degree

Social and Community Service Managers

Job Description

Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-

duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,316
Median 50th Percentile	$76,661
Senior-Level 90th Percentile	$125,879

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$37
Senior-Level 90th Percentile	$61

Annual Job Openings

383 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	7.24%
A certificate	0.00%
Some college	2.19%
An Associate degree	8.15%
A Bachelor's degree	50.36%
A Master's or Professional degree	32.05%
A Doctoral degree or more	0.00%

82.41% continue their education beyond an associate degree

Social Work: Youth Work, Advanced Certificate

College(s): HW*

Program Code: 0317

**Beginning Summer 2016, this program is no longer accepting new students. Please refer to CCC's other Liberal Arts offerings.*

Program Requirements

Code	Title	Hours
Required Program Core		
CHLD DV 101	Human Growth & Development I	4
CHLD DV 102	Human Growth & Development II	3
MENHLTH 223	Intro To Addictions Studies	3
MENHLTH 228	Principles of Mental Health Practices	3
SOC SER 109	Report Writing for Social Service Aides	3
SOC SER 212	Introduction To Group Process	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 248	Principles Of Youth & Group Work	3
Required Work-Based Learning Courses		
SOC SER 249	Practicum In Youth Work	6
Total Hours		**31**

Social Work: Youth Work, Basic Certificate

College(s): KK

Program Code: 0466

The Social Work Youth Work Basic Certificate is a specialized academic pathway that aims to equip students with the knowledge, skills, and values to work effectively with children, young people, and their families. The curriculum comprehensively studies human behavior, child development, family dynamics, social welfare problems, and policies. Additionally, the program addresses the legal and ethical considerations involved in working with vulnerable populations. By the end of the program, completers are expected to be competent and compassionate professionals ready to advocate for the rights and well-being of children, youth, and families and to contribute to the development of supportive and inclusive communities.

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
SOC SER 101	Introduction To Social Work	3
SOC SER 215	Social Prob & Soc Action I	3
SOC SER 248	Principles Of Youth & Group Work	3
MENHLTH 223	Intro To Addictions Studies	3
Total Hours		**15**

Pathway

This is an **example course sequence** for students interested in pursuing Social Work: Youth Work. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC) in Social Work: Youth Work.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition	3
SOC SER 101	Introduction To Social Work	3
SOC SER 215	Social Prob & Soc Action I	3
	Hours	**9**
Semester 2		
SOC SER 248	Principles Of Youth & Group Work	3
MENHLTH 223	Intro To Addictions Studies	3
	Hours	**6**
	Total Hours	**15**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Social and Human Service Assistants

Job Description

Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,956
Median 50th Percentile	$47,077
Senior-Level 90th Percentile	$72,371

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$23
Senior-Level 90th Percentile	$35

Annual Job Openings

1282 annual openings in Cook County

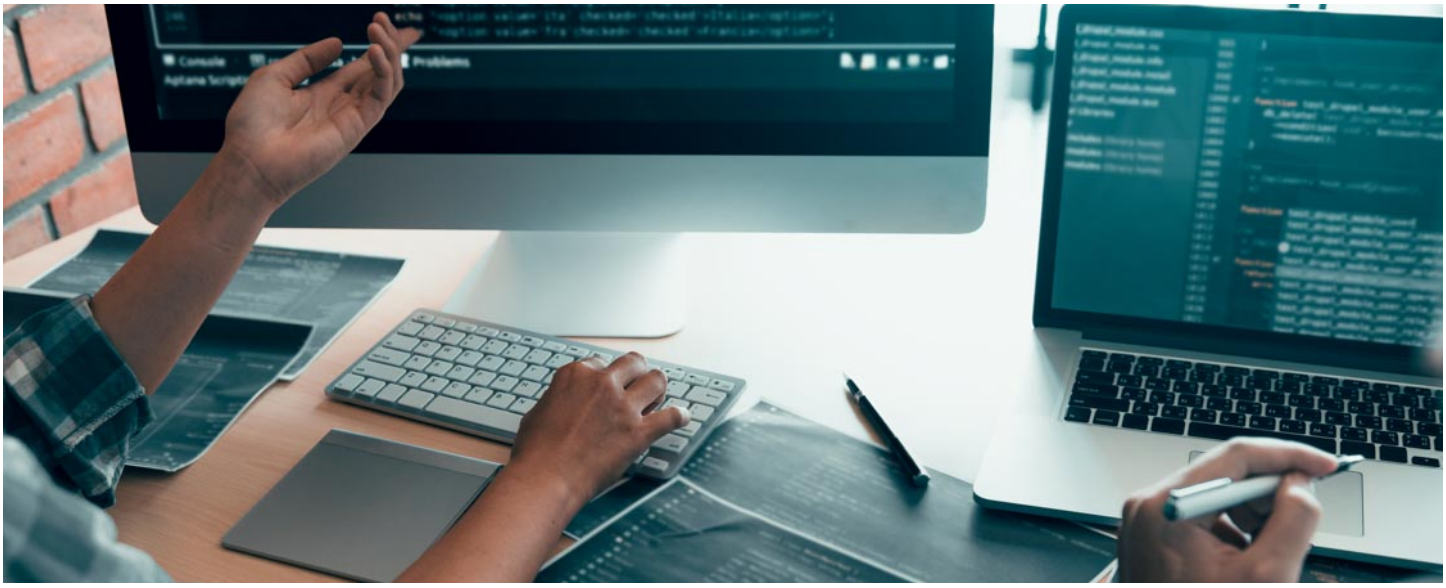
National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	10.41%
A certificate	0.00%
Some college	16.21%
An Associate degree	17.99%
A Bachelor's degree	40.46%
A Master's or Professional degree	11.16%
A Doctoral degree or more	3.77%

55.39% continue their education beyond an associate degree

Software Development, Advanced Certificate



College(s): DA, HW, KK, MX, OH, TR*, WR

Program Code: 0441

In an increasingly digital world, software development is key to the technology we use in our daily lives. There is now a growing need for software developers to create new mobile applications and software services in a variety of businesses and fields. City Colleges' Software Development program teaches students several in-demand programming languages, including Python, C++, Java and JavaScript. Through the courses, students will learn the whole life cycle of software and be ready to meet employer demands.

The Advanced Certificate provides a more advanced level of C++ or Java (data structure), JavaScript/jQuery (frontend website programming language). Students will also build skills with either PHP (backend website programming language) or Android Studio (mobile application development), and have the chance to obtain hands-on experience through a variety of projects.

Program Requirements

Code	Title	Hours
Required Program Core		
MATH 118	General Education Math [1]	4
or MATH 140	College Algebra	
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming	3
CIS 114	Mobile Application Development	3
or CIS 281	Web Development III/Server Side Programming	
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
or CIS 244	Java Object Oriented Programming II	
CIS 245 Principles of Software Development		3
NET TEC 101	Client-Server Database I	3
Total Hours		**34**

[1] MATH 140 College Algebra is a prerequisite for MATH 146 Discrete Mathematics, which may be applied to the Software Development Associate in Applied Science Degree. Higher numbered courses can also fulfill this requirement.

Pathway

This is an **example course sequence** for students interested in earning an Advanced Certificate in Software Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Software Development.

Semester-By-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 118	General Education Math [1]	4
or MATH 140	or College Algebra	
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming	3
CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**13**

Semester 2		
CIS 142 or CIS 144	C++ Object Oriented Programming I or Java Object Oriented Programming I	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 245	Principles of Software Development	3
NET TEC 101	Client-Server Database I	3
	Hours	**12**
Semester 3		
CIS 114 or CIS 281	Mobile Application Development or Web Development III/Server Side Programming	3
CIS 142 or CIS 281	C++ Object Oriented Programming I or Web Development III/Server Side Programming	3
CIS 242 or CIS 244	C++ Object Oriented Programming II or Java Object Oriented Programming II	3
	Hours	**9**
	Total Hours	**34**

[1] MATH 140 College Algebra is a prerequisite for MATH 146 Discrete Mathematics, which may be applied to the Software Development Associate in Applied Science Degree. Higher numbered courses can also fulfill this requirement.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Computer Programmers

Job Description

Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,683
Median 50th Percentile	$88,492
Senior-Level 90th Percentile	$181,058

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$43
Senior-Level 90th Percentile	$87

Annual Job Openings

46 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	2.52%
An Associate degree	8.99%
A Bachelor's degree	88.04%
A Master's or Professional degree	0.45%
A Doctoral degree or more	0.00%

88.49% continue their education beyond an associate degree

Software Developers

Job Description

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$79,803
Median 50th Percentile	$135,040
Senior-Level 90th Percentile	$185,815

Hourly Wages

Entry-Level 10th Percentile	$38
Median 50th Percentile	$65
Senior-Level 90th Percentile	$89

Annual Job Openings

1880 annual openings in Cook County

National Education Attainment

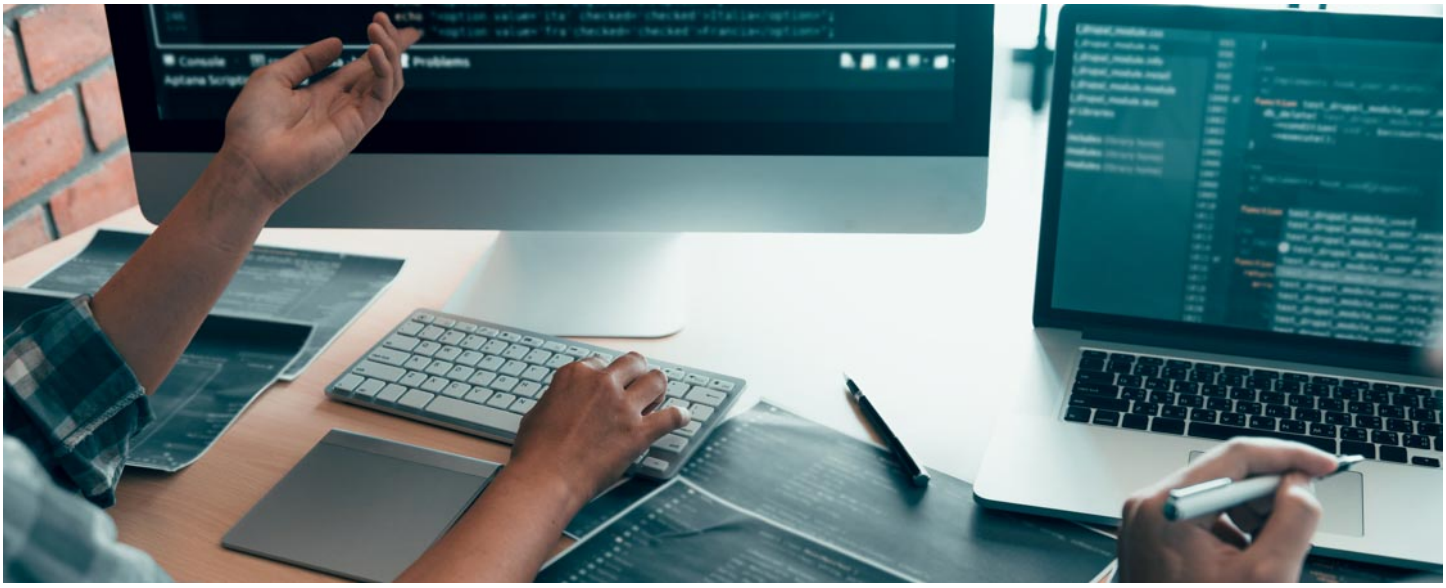
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	1.41%
Some college	0.00%
An Associate degree	3.23%
A Bachelor's degree	79.73%
A Master's or Professional degree	15.64%
A Doctoral degree or more	0.00%

95.37% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Software Development, Associate in Applied Science



College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0440

In an increasingly digital world, software development is key to the technology we use in our daily lives. There is now a growing need for software developers to create new mobile applications and software services in a variety of businesses and fields. City Colleges' Software Development program teaches students several in-demand programming languages, including Python, C++, Java and JavaScript. Through the courses, students will learn the whole life cycle of software and be ready to meet employer demands.

The degree program focuses on developing expertise in at least one programming language, obtaining hands-on experience in the analysis, design, implementation, and maintenance of software applications using those languages. Students also build skills in either back end website programming or mobile application development, and gain work-based experience through an internship or field project. Graduates of the AAS in Software Development will be prepared to enter the workforce as entry-level programmers.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Fine Arts & Humanities Course [1]		3
Select one of the following:		3
Physical Sciences & Life Sciences		
ECON 201	Principles Of Economics I	
ECON 202	Principles Of Economics II	
Select two Mathematics Courses:		8
MATH 118	General Education Math (or higher)	
MATH 125	Introductory Statistics	
MATH 140	College Algebra (or higher) [2]	
MATH 146	Discrete Mathematics [2]	
Required Program Core		
BUSINES 111	Introduction To Business	3
or BUSINES 21:	Data Visualization and Presentation for Business	
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming	3
CIS 114	Mobile Application Development	3
or CIS 281	Web Development III/Server Side Programming	
CIS 142	C++ Object Oriented Programming I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 242	C++ Object Oriented Programming II	3
or CIS 244	Java Object Oriented Programming II	
CIS 245	Principles of Software Development	3
NET TEC 101	Client-Server Database I	3
Required Work-Based Learning Courses		
CIS 260	Computer Information Systems Field Project	3
or CIS 265	Computer Information Systems Internship	
Program Electives		
Select a minimum of 9 credit hours of program electives (p. 440)		9
Total Hours		**62**

[1] At least one general education course must meet the State of Illinois' Human Diversity requirement.

[2] Two Mathematics are required for AAS: MATH 118 General Education Math, or higher. (Acceptable); MATH 140 College Algebra or higher. (Recommend, Pre-requisite for MATH 146 Discrete Mathematics); MATH 125 Introductory Statistics. (Recommend for Software Engineer, Testing, Security, Data, ML, AI); MATH 146 Discrete Mathematics. (Pre-requisite MATH 140 College Algebra – Recommended for Software Engineer)

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 259	Introduction to Project Management	3
CIS 113	Human-Computer Interaction	3
CIS 116	Operating System I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 250	Systems Analysis and Design	3
CIS 281	Web Development III/Server Side Programming	3
CIS 282	Web Development IV/Web Database Integration	3
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3
COMPSFI 213	Ethical Hacking	3
COMPSFI 215	Information Security Domain	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Pathway

This is an **example course sequence** for students interested in pursuing Software Development. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC), an Advanced Certificate (AC), and an Associate in Applied Science (AAS) Degree in Software Development.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 101	Computer Science 101 [1]	3
CIS 103	Fundamentals of Programming	3
CIS 181	Web Development I/Basic Web Technologies	3
MATH 118 or MATH 140	General Education Math [2,4] or College Algebra	4
ENGLISH 101	Composition [4]	3
	Hours	**16**
Semester 2		
CIS 142 or CIS 144	C++ Object Oriented Programming I or Java Object Oriented Programming I	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 245	Principles of Software Development	3
NET TEC 101	Client-Server Database I	3
Fine Arts & Humanities course (HD) [3,4]		3
	Hours	**15**
Semester 3		
CIS 114 or CIS 281	Mobile Application Development or Web Development III/Server Side Programming	3
CIS 142 or CIS 144	C++ Object Oriented Programming I or Java Object Oriented Programming I	3
CIS 242 or CIS 244	C++ Object Oriented Programming II or Java Object Oriented Programming II	3
Select one of the following: [2,4]		4
MATH 125	Introductory Statistics	
MATH 140	College Algebra	
MATH 146	Discrete Mathematics	
Program Elective (p. 441)		3
	Hours	**16**
Semester 4		
BUSINES 111 or BUSINES 213	Introduction To Business or Data Visualization and Presentation for Business	3
CIS 260 or CIS 265	Computer Information Systems Field Project or Computer Information Systems Internship	3
Select one of the following: [4]		3
Physical Sciences & Life Sciences		
ECON 201	Principles Of Economics I	
ECON 202	Principles Of Economics II	
Program Elective (p. 441)		3
Program Elective (p. 441)		3
	Hours	**15**
	Total Hours	**62**

[1] For students who may have taken CIS 101 already, please select CIS 142 or CIS 144 in the first semester, so that you can take CIS 244 or CIS 242 in the later semesters.

[2] Two Mathematics are required for AAS:
- MATH 118 General Education Math, (or higher) is acceptable;
- MATH 140 College Algebra (or higher) is recommended (Pre-requisite for MATH 146);
- MATH 125 Introductory Statistics is recommend for Software Engineering, Testing, Security, Data, ML, AI;
- MATH 146 Discrete Mathematics (Pre- requisite MATH 140) is recommended for Software Engineering

[3] At least one general education course must meet the State of Illinois' Human Diversity requirement.

[4] General education course

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 259	Introduction to Project Management	3
CIS 113	Human-Computer Interaction	3
CIS 116	Operating System I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
CIS 250	Systems Analysis and Design	3
CIS 281	Web Development III/Server Side Programming	3
CIS 282	Web Development IV/Web Database Integration	3
COMPSFI 102	Information Security Essentials	3
COMPSFI 202	Cybercrime and Incident Response	3

COMPSFI 213	Ethical Hacking	3
COMPSFI 215	Information Security Domain	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
NET TEC 121	Internetworking I	3
NET TEC 122	Internetworking II	3
NET TEC 240	Operating Systems/Server I	3

Choose your courses with your College Advisor.

Careers

Computer Programmers

Job Description

Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,683
Median 50th Percentile	$88,492
Senior-Level 90th Percentile	$181,058

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$43
Senior-Level 90th Percentile	$87

Annual Job Openings

46 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	2.52%
An Associate degree	8.99%
A Bachelor's degree	88.04%
A Master's or Professional degree	0.45%
A Doctoral degree or more	0.00%

88.49% continue their education beyond an associate degree

Software Quality Assurance Analysts and Testers

Job Description

Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$66,318
Median 50th Percentile	$106,564
Senior-Level 90th Percentile	$144,828

Hourly Wages

Entry-Level 10th Percentile	$32
Median 50th Percentile	$51
Senior-Level 90th Percentile	$70

Annual Job Openings

247 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	2.94%
A certificate	8.82%
Some college	8.82%
An Associate degree	26.47%
A Bachelor's degree	50.00%
A Master's or Professional degree	2.94%
A Doctoral degree or more	0.00%

52.94% continue their education beyond an associate degree

Software Developers

Job Description

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software

solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$79,803
Median 50th Percentile	$135,040
Senior-Level 90th Percentile	$185,815

Hourly Wages

Entry-Level 10th Percentile	$38
Median 50th Percentile	$65
Senior-Level 90th Percentile	$89

Annual Job Openings

1880 annual openings in Cook County

National Education Attainment

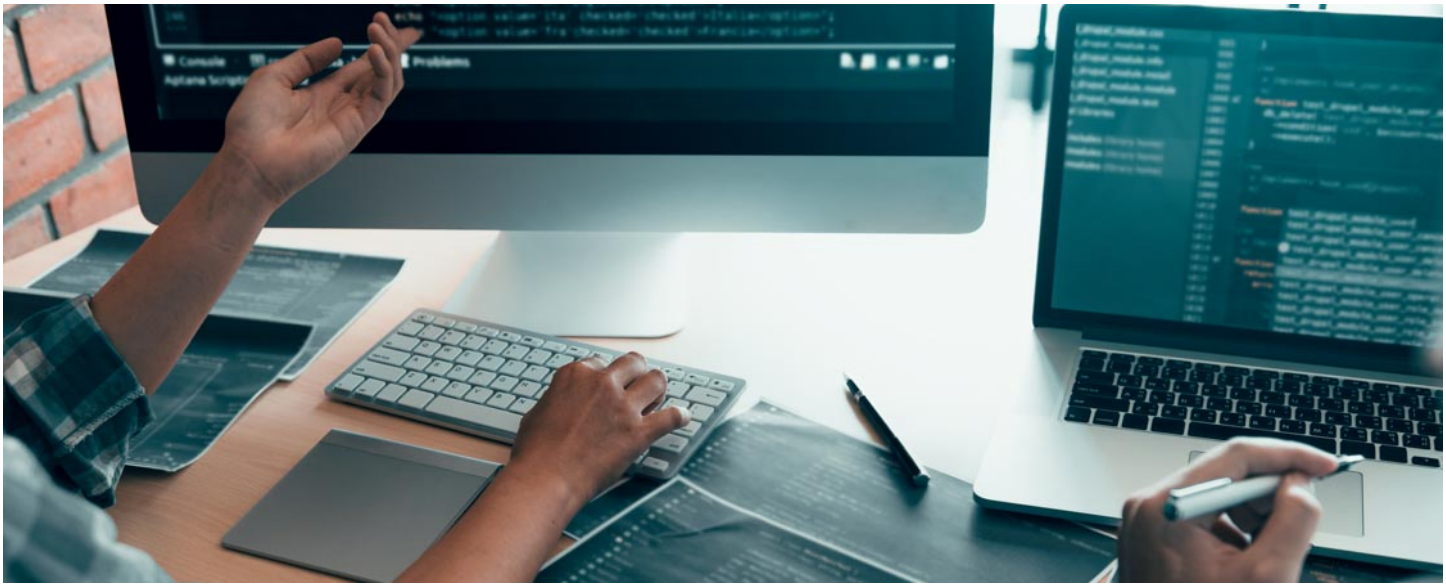
Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	1.41%
Some college	0.00%
An Associate degree	3.23%
A Bachelor's degree	79.73%
A Master's or Professional degree	15.64%
A Doctoral degree or more	0.00%

95.37% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Software Development, Basic Certificate



College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0442

In an increasingly digital world, software development is key to the technology we use in our daily lives. There is now a growing need for software developers to create new mobile applications and software services in a variety of businesses and fields. City Colleges' Software Development program teaches students several in-demand programming languages, including Python, C++, Java and JavaScript. Through the courses, students will learn the whole life cycle of software and be ready to meet employer demands.

The Basic Certificate provides an opportunity for students to learn industry-standards through different programming languages including HTML 5 and CSS 3, Python, C++ or Java, and SQL. Students will acquire hands-on experience that develop skills using the Software Development Life Cycle (SDLC) in the analysis, design, implementation, and maintenance of software applications with those programming languages.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
MATH 118	General Education Math (or higher General Education Mathematics) [1]	4
or MATH 140	College Algebra	
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming	3
CIS 142	C++ Object Oriented Programming I	3
or CIS 144	Java Object Oriented Programming I	
CIS 181	Web Development I/Basic Web Technologies	3
CIS 245 Principles of Software Development		3
Select one of the following:		3
CIS 182	Web Development II/Client Side Scripting	
CIS 281	Web Development III/Server Side Programming	
NET TEC 101	Client-Server Database I	
Total Hours		**22**

[1] MATH 140 College Algebra is a prerequisite for MATH 146 Discrete Mathematics, which may be applied to the Software Development Associate in Applied Science Degree. Higher numbered courses can also fulfill this requirement.

Pathway

This is an **example course sequence** for students interested in earning a Basic Certificate in Software Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Software Development.

Semester-by-Semester Pathway for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
MATH 118 or MATH 140	General Education Math (or higher General Education Mathematics) [1] or College Algebra	4
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming	3

CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**13**
Semester 2		
CIS 142 or CIS 144	C++ Object Oriented Programming I or Java Object Oriented Programming I	3
CIS 245 Principles of Software Development		3
Select one of the following:		3
CIS 182	Web Development II/Client Side Scripting	
CIS 281	Web Development III/Server Side Programming	
NET TEC 101	Client-Server Database I	
	Hours	**9**
	Total Hours	**22**

[1] MATH 140 College Algebra is a prerequisite for MATH 146 Discrete Mathematics, which may be applied to the Software Development Associate in Applied Science Degree

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Computer Programmers

Job Description

Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$48,683
Median 50th Percentile	$88,492
Senior-Level 90th Percentile	$181,058

Hourly Wages

Entry-Level 10th Percentile	$23
Median 50th Percentile	$43
Senior-Level 90th Percentile	$87

Annual Job Openings

46 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	2.52%
An Associate degree	8.99%
A Bachelor's degree	88.04%
A Master's or Professional degree	0.45%
A Doctoral degree or more	0.00%

88.49% continue their education beyond an associate degree

Software Developers

Job Description

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$79,803
Median 50th Percentile	$135,040
Senior-Level 90th Percentile	$185,815

Hourly Wages

Entry-Level 10th Percentile	$38
Median 50th Percentile	$65
Senior-Level 90th Percentile	$89

Annual Job Openings

1880 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	1.41%
Some college	0.00%
An Associate degree	3.23%
A Bachelor's degree	79.73%
A Master's or Professional degree	15.64%
A Doctoral degree or more	0.00%

95.37% continue their education beyond an associate degree

Sterile Processing, Basic Certificate

College(s): MX

Program Code: 0269

The Sterile Processing Program provides the student with classroom and onsite Sterile Processing Department experience. It focuses on the necessary specialized education and working in the Central Service Department.

This Basic Certificate program in Sterile Processing program presents the basic concepts and principles for developing skills and competencies required for infection prevention and control in the sterile processing department in a health care facility. The program offers basic knowledge related to instrumentation connected with surgical procedures. Students will be involved in processes such as cleaning, disinfecting, decontamination, sterilization, standard precautions, and universal precautions as well as gain basic knowledge concerning various types of central service equipment such as ultrasonic cleaning, washer sterilizers, cart washers, autoclaves, steris, sterrad and ethylene oxide (ETO) machines.

Program Graduates will meet the requirements to sit for the Certified Registered Central Service Technician (CRCST) exam.

This selective admissions program requires students to submit a separate application or to take additional action before enrolling.

For more information on the Sterile Processing Program at Malcolm X College, visit the program webpage (https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Sterile-Processing-Technician.aspx).

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
SURG TC 105	Sterile Processing Basics	7
Required Work-Based Learning Courses		
SURG TC 106	SP Experiential Learning	9
Total Hours		**16**

Pathway

These are **example course sequences** for students interested in sterile processing. They do not represent a contract, nor do they guarantee course availability. If either pathway is followed as outlined, you will earn a Basic Certificate (BC) in Sterile Processing.

Semester-by-Semester Program Plan for One-Semester Students

Semester 1		**Hours**
SURG TC 105	Sterile Processing Basics	7
SURG TC 106	SP Experiential Learning	9
	Hours	**16**
	Total Hours	**16**

Choose your courses with your College Advisor.

Semester-by-Semester Program Plan for Two-Semester Students

Semester 1		**Hours**
SURG TC 105	Sterile Processing Basics	7
	Hours	**7**
Semester 2		
SURG TC 106	SP Experiential Learning	9
	Hours	**9**
	Total Hours	**16**

Choose your courses with your College Advisor.

Program Admission Requirements

- Eligibility for ENGLISH 101 Composition
- Submit official college transcripts from all accredited colleges attended outside of City Colleges of Chicago.
- As defined by Illinois State Law (225ILCS46/25):
  - All healthcare workers and student health care workers are required to undergo a criminal background check in order to work in a clinical setting.#A student with a positive background check containing disqualifying conditions will not be allowed to enter the clinical portion of this program, thus preventing the student from obtaining mandated certification and/or licensure in#Sterile Processing. Please contact the Program Director to discuss disqualifiers. The applicant is responsible for the cost of the background clearance. Prior to clinical placement, the student will be required to provide a cleared drug screen at their own cost.

For more information about admissions requirements and the application process, visit the program website (http://www.ccc.edu/colleges/malcolm-x/departments/Pages/Sterile-Processing-Technician.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Medical Equipment Preparers

Job Description

Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$39,582
Median 50th Percentile	$49,326
Senior-Level 90th Percentile	$75,750

Hourly Wages

Entry-Level 10th Percentile	$19
Median 50th Percentile	$24
Senior-Level 90th Percentile	$36

Annual Job Openings

180 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	43.76%
A certificate	31.22%
Some college	4.42%
An Associate degree	3.52%
A Bachelor's degree	15.30%
A Master's or Professional degree	1.78%
A Doctoral degree or more	0.00%

17.08% continue their education beyond an associate degree

Supply Chain Management and Logistics, Associate in Applied Science

College(s): OH

Program Code: 0737

The Associate in Applied Science degree in Transportation, Distribution, and Logistics provides students with a direct experience working in a logistics environment, building skills critical to success including: operations/business development, receiving, shipping, and case analysis. The program prepares students for working from entry level to supervisory positions.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
Any General Education Mathematics		3
PSYCH 201	General Psychology	3
ECON 201	Principles Of Economics I	3
Any Social and Behavioral Sciences Gen-Ed that satisfies HD		3
SPEECH 101	Fundamentals of Speech Communication	3
Required Program Core		
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
SCML 159	Inventory Management	3
SCML 160	Operations Management	3
SCML 180	E-Commerce/E-Procurement	3
SCML 181	Demand Planning & Forecasting	3
SCML 182	Global Logistics	3
CIS 120	Introduction to Computer Applications	3
Program Electives		
Select a minimum of 9 credit hours of program electives (p. 449)		9
Total Hours		**60**

At least one course must meet the Human Diversity (HD) requirement.

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
BUSINES 180	Fundamentals Of Accounting	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 211	Business Law I	3
BUSINES 231	Marketing	3
BUSINES 232	Fundamentals of International Business	3
BUSINES 237	Selling	3
BUSINES 269	Principles Of Management	3
BUSINES 274	Industrial Management	3
BUSINES 284	Business Communications	3
CIS 123	Microcomputer Spreadsheets	3
MATH 125	Introductory Statistics	4
ECON 202	Principles Of Economics II	3
SCML 151	Central Store: Applied Logistics	6

Pathway

This is an **example course sequence** for students interested in Supply Chain Management & Logistics. It does not represent a contract, nor does

it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science Degree (AAS) in Supply Chain Management & Logistics. Depending on your chosen electives, you may also earn a BC in Cannabis Dispensary Operations Specialist. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below..

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
	Hours	**15**
Semester 2		
ENGLISH 101	Composition [1]	3
MATH 118	General Education Math [1]	4
CIS 120	Introduction to Computer Applications	3
SCML 159	Inventory Management	3
SCML 160	Operations Management	3
	Hours	**16**
Semester 3		
PSYCH 201	General Psychology [1]	3
ECON 201	Principles Of Economics I	3
SCML 180	E-Commerce/E-Procurement	3
SCML 182	Global Logistics	3
Program Elective (p. 450) [2]		3
	Hours	**15**
Semester 4		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Social and Behavioral Sciences course (HD) [1]		3
SCML 181	Demand Planning & Forecasting	3
Program Elective (p. 450) [2]		3
Program Elective (p. 450) [2]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education Requirement
[2] Program Elective (p.)

Program Electives

Code	Title	Hours
BUSINES 111	Introduction To Business	3
BUSINES 180	Fundamentals Of Accounting	3
BUSINES 181	Financial Accounting	4
BUSINES 182	Managerial Accounting	4
BUSINES 211	Business Law I	3
BUSINES 231	Marketing	3
BUSINES 232	Fundamentals of International Business	3
BUSINES 237	Selling	3
BUSINES 269	Principles Of Management	3
BUSINES 274	Industrial Management	3
BUSINES 284	Business Communications	3
CIS 123	Microcomputer Spreadsheets	3
MATH 125	Introductory Statistics	4
ECON 202	Principles Of Economics II	3
SCML 151	Central Store: Applied Logistics	6

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand

Job Description

Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,266
Median 50th Percentile	$63,463
Senior-Level 90th Percentile	$97,696

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$47

Annual Job Openings

1035 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	35.20%
A certificate	21.34%
Some college	30.77%
An Associate degree	4.16%
A Bachelor's degree	8.52%

A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

8.52% continue their education beyond an associate degree

First-Line Supervisors of Material-Moving Machine and Vehicle Operators

Job Description

Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$45,266
Median 50th Percentile	$63,463
Senior-Level 90th Percentile	$97,696

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$31
Senior-Level 90th Percentile	$47

Annual Job Openings

1035 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	29.86%
A certificate	2.56%
Some college	28.79%
An Associate degree	13.57%
A Bachelor's degree	25.22%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

25.22% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Supply Chain Management and Logistics, Advanced Certificate

College(s): OH

Program Code: 0738

The Advanced Certificate in Supply Chain Management & Logistics is designed for students that have a working understanding of the operational policies and procedures of the TDL industry.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
ENGLISH 101	Composition	3
Any General Education Mathematics		3
CIS 120	Introduction to Computer Applications	3
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
SCML 159	Inventory Management	3
SCML 160	Operations Management	3
Total Hours		**30**

Pathway

This is an example course sequence for students interested in Supply Chain Management & Logistics. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Supply Chain Management & Logistics.

The Advanced Certificate in Supply Chain Management & Logistics provides students with a direct experience working in a logistics environment, building skills critical to success including: operations/ business development, receiving, shipping, and case analysis. The program prepares students for working in roles as production, planning, and expediting clerks.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
	Hours	**15**
Semester 2		
ENGLISH 101	Composition	3
MATH 118	General Education Math	4
CIS 120	Introduction to Computer Applications	3
SCML 159	Inventory Management	3
SCML 160	Operations Management	3
	Hours	**16**
	Total Hours	**31**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings,

and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Production, Planning, and Expediting Clerks

Job Description

Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,998
Median 50th Percentile	$62,945
Senior-Level 90th Percentile	$97,009

Hourly Wages

Entry-Level 10th Percentile	$22
Median 50th Percentile	$30
Senior-Level 90th Percentile	$47

Annual Job Openings

393 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	56.23%
A certificate	9.40%
Some college	21.17%
An Associate degree	13.21%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Supply Chain Management and Logistics, Basic Certificate

College(s): OH

Program Code: 0739

The Basic Certificate in Supply Chain Management & Logistics is designed to provide students who have little or no formal knowledge of the industry with introductory information and understand of the TDL industry. Students will learn the different TDL modalities, identify source types, and learn industry terminology and protocols, as well as applicable rules and regulations.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
Total Hours		**15**

Pathway

This is an **example course sequence** for students interested in Supply Chain Management & Logistics. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC)in Supply Chain Management & Logistics.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
SCML 150	Intro To Transportation Administration	3
SCML 152	Intro To Business Logistics	3
SCML 154	Customer Service Operations	3
SCML 155	Warehouse Management	3
SCML 158	Purchasing	3
	Hours	**15**
	Total Hours	**15**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Laborers and Freight, Stock, and Material Movers, Hand

Job Description

Manually move freight, stock, luggage, or other materials, or perform other general labor. Includes all manual laborers not elsewhere classified.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,698
Median 50th Percentile	$41,401
Senior-Level 90th Percentile	$58,715

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$20
Senior-Level 90th Percentile	$28

Annual Job Openings

9938 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	99.42%
A certificate	0.00%
Some college	0.58%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Packers and Packagers, Hand

Job Description

Pack or package by hand a wide variety of products and materials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$32,748
Median 50th Percentile	$38,294
Senior-Level 90th Percentile	$48,394

Hourly Wages

Entry-Level 10th Percentile	$16
Median 50th Percentile	$18
Senior-Level 90th Percentile	$23

Annual Job Openings

1538 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	86.30%
A certificate	0.00%
Some college	13.70%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Shipping, Receiving, and Inventory Clerks

Job Description

Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$36,232
Median 50th Percentile	$46,475
Senior-Level 90th Percentile	$63,504

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$31

Annual Job Openings

1182 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	74.91%
A certificate	0.52%
Some college	1.88%
An Associate degree	11.94%
A Bachelor's degree	10.76%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

10.76% continue their education beyond an associate degree

Machine Feeders and Offbearers

Job Description

Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$35,788
Median 50th Percentile	$45,070
Senior-Level 90th Percentile	$77,660

Hourly Wages

Entry-Level 10th Percentile	$17
Median 50th Percentile	$22
Senior-Level 90th Percentile	$37

Annual Job Openings

79 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	93.71%
A certificate	3.99%
Some college	0.00%
An Associate degree	2.30%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Surgical Technology, Associate in Applied Science

College(s): MX

Program Code: 0267

In the Associate in Applied Science degree in Surgical Technology, students will learn to professionally carry out common operating room procedures and handle high-pressure situations as a valuable member of a surgical team. Students will be trained in four focused skills areas of surgical technology: preparing operating rooms, assisting surgeons during surgery, sterilization techniques, and compassionate patient care. In as few as 21 months, students can earn a Surgical Technologist associate degree, which provides hands-on training in our virtual surgical suite, surgical labs, and clinical affiliated hospitals, to help prepare students for a fulfilling career.

Accreditation

The Surgical Technology Program at Malcolm X College is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP)(www.caahep.org (https://nam12.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.caahep.org%2F&data=05%7C02%7Cslichtenstein1%40ccc.edu%7C9f5a8b02c8554fc5f1d308dc79c95e8d%7C535e80d599a94fc8a82abaeb294da236%7C0%7C0%7C638519153005972566%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=cpDbjB3LVTEmxSGAOJjwxGSWTWcbtC8w4weQDRM2Ng8%3D&reserved=0)) upon the recommendation of Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Commission on Accreditation of Allied Health Education Programs
www.caahep.org (https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.caahep.org%2Fstudents%2Ffind-an-accredited-program&data=05%7C02%7Cslichtenstein1%40ccc.edu%7C9f5a8b02c8554fc5f1d308dc79c95e8d%7C535e80d599a94fc8a82abaeb294da236%7C0%7C0%7C638519153005978053%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=hwgPvSDGCtS7T6MPuSokkMnEP3RYr%2Bi4zEwbJbGKl8I%3D&reserved=0)
9355 113th St N, #7709
Seminole, FL 33775
727-210-2350

Institutional Program accreditation status can be found at: www.hlcommission.org (https://www.hlcommission.org/component/directory/?Action=ShowBasic&Itemid=&instid=1121)

Program Goals

Our goal is to prepare competent entry-level surgical technologists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

We are dedicated to provide comprehensive curricula, supportive services, and promote cultural and global awareness in an inclusive learning environment.

Occupational Overview

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works under the supervision of a surgeon to ensure that the operating room or environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. A surgical technologist possesses expertise in the theory and application of sterile and aseptic technique and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies

to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

The Accreditation Review Committee on Education in Surgical Technology describes the Surgical Technologists as:

"… Possess[ing] expertise in the theory and application of sterile and aseptic technique and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures."

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
BIOLOGY 121	Biology I	5
SOC 201	Intro To the Study Of Society	3
BIOLOGY 226	Human Structure and Function I	4
BIOLOGY 227	Human Structure and Function II	4
General Education Mathematics Course (Math 118 recommended)		3
Required Program Core		
BIOLOGY 120	Terminology For Medical Careers	3
MCROBIO 233	General Microbiology	4
SURG TC 111	Intro To Surgical Technology	2
SURG TC 112	Principles & Practice for STs	3
SURG TC 113	Surgical Procedures I	4
SURG TC 114	Applied Surgical Procedures	4
SURG TC 116	Surgical Procedures II	3
SURG TC 118	Applied Surgical Procedures II	3
SURG TC 210	Surgical Procedures III	4
SURG TC 215	Career Readiness for STs	3
Required Work-Based Learning Courses		
SURG TC 212	Clinical Experience I	5
SURG TC 213	Clinical Experience II	9
Total Hours		**69**

Pathway

This is an **example course sequence** for students interested in earning an Associate in Applied Science in Surgical Technology. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS). It does not represent a contract, nor does it guarantee course availability.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		**Hours**
BIOLOGY 120	Terminology For Medical Careers [1]	3
BIOLOGY 121	Biology I [1]	5
General Education Mathematics Course (Math 118 recommended)		3
	Hours	**11**
Semester 2		
BIOLOGY 226	Human Structure and Function I [1]	4
	Hours	**4**
Semester 3		
BIOLOGY 227	Human Structure and Function II	4
ENGLISH 101	Composition	3
SURG TC 111	Intro To Surgical Technology	2
SURG TC 112	Principles & Practice for STs	3
	Hours	**12**
Semester 4		
MCROBIO 233	General Microbiology	4
SURG TC 113	Surgical Procedures I	4
SURG TC 114	Applied Surgical Procedures	4
	Hours	**12**
Semester 5		
SURG TC 116	Surgical Procedures II	3
SURG TC 118	Applied Surgical Procedures II	3
	Hours	**6**
Semester 6		
SOC 201	Intro To the Study Of Society	3
SURG TC 210	Surgical Procedures III	4
SURG TC 212	Clinical Experience I	5
	Hours	**12**
Semester 7		
SURG TC 213	Clinical Experience II	9
SURG TC 215	Career Readiness for STs	3
	Hours	**12**
	Total Hours	**69**

[1] Program prerequisite to be completed prior to application for the Surgical Technology program.

Choose your courses with your College Advisor.

Program Admission Requirements

Applicants must:

1. Be admitted to Malcolm X College
2. Be at least 18 years of age
3. Completion of prerequisite courses must not be more than five years old and all prerequisite coursework must be completed with a grade of "C" or better. These courses are as follows:

Code	Title	Hours
Any college level Mathematics course (MATH 118 recommended)		3
BIOLOGY 120	Terminology For Medical Careers	3
BIOLOGY 121	Biology I	5
BIOLOGY 226	Human Structure and Function I	4

4. Provide Malcolm X College with official college transcripts for any previous course work.
5. Have a minimum 2.5 College GPA
6. Complete the Program Admissions Application (https://catalog.ccc.edufile://D://Malcolm%20X/Students/Registration%20Help/RegistrationStudentHelpGuide11012018.pdf)
7. All students are required to undergo a criminal background check. Students with a positive background check that contains disqualifying convictions may be prohibited from being placed at a clinical site, sitting for certification board examinations, and securing future employment. Students are responsible for the cost of performing the background check. The program's Clinical Coordinator will provide instructions to obtain the Background Check at the New Student Orientation session.

Students with a positive background check that contains convictions may be allowed to enter into the program, however, some convictions may prohibit them from entering the clinical site. These students will be unable to participate in the clinical externship course (resulting in a failing grade), sitting for certification board examinations, and securing future employment. Students with convictions are strongly encouraged to work to have any convictions expunged prior to entering the program. Students are responsible for the cost of performing the background check. The program's Clinical Coordinator will provide instructions to obtain the Background Check at the New Student Orientation session.

As defined by Illinois State Law (225ILCS46/25):

- All healthcare workers and student health care workers are required to undergo a criminal background check in order to work in a clinical setting.#A student with a positive background check containing disqualifying conditions will not be allowed to enter the clinical portion of this program, thus preventing the student from obtaining mandated certification and/or licensure in#Sterile Processing. Please contact the Program Director to discuss disqualifiers. The applicant is responsible for the cost of the background clearance. Prior to clinical placement, the student will be required to provide a cleared drug screen at their own cost.

8. Attend a consultation with members of the Surgical Technology program's staff and/or advisory board before acceptance into the program.
9. All college transcripts from colleges/universities attended outside City Colleges of Chicago are required to be sent to Malcolm X College Office of Registrar Services or mxregistrar@ccc.edu from the specific college/university. We do not have access to transcripts submitted to other City Colleges of Chicago.

For more information about admissions requirements and the application process, visit the program website (https://www.ccc.edu/colleges/malcolm-x/departments/pages/surgical---sterile-processing-technologist-.aspx).

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Surgical Technologists

Job Description

Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeons' assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$54,159
Median 50th Percentile	$68,644
Senior-Level 90th Percentile	$117,002

Hourly Wages

Entry-Level 10th Percentile	$26
Median 50th Percentile	$33
Senior-Level 90th Percentile	$56

Annual Job Openings

92 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.98%
A certificate	31.22%
Some college	23.24%
An Associate degree	40.56%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Sustainable Urban Horticulture, Advanced Certificate

College(s): DA

Program Code: 0828

The Horticulture (Sustainable Urban) certificate program is designed to provide students with cutting edge opportunities in the area of green technologies. Topics include green roofs, xeriscaping, rain gardens, and other new emerging technologies in the green industry.

This program is a hands-on, technical training in sustainable urban agriculture offered in partnership with the City Colleges of Chicago. Students receive a combination of classroom, lab, and field experience at the Arturo Velasquez Institute (AVI) greenhouse and at Windy City Harvest farm sites, complemented by a 14-week paid work experience at a Windy City Harvest (WCH) farm or partnering urban-farming operation.

Program Requirements

Code	Title	Hours
Required Program Core		
STTRDE 136	Basic Horticulture	3
STTRDE 137	Managing Urban Green Space	3
STTRDE 138	Horticultural Plant Science	3
STTRDE 139	Urban Horticultural Floral	3
STTRDE 140	Greenhouse Crop Production	4
STTRDE 141	Soil Fertility and Assessment	3
STTRDE 142	Management of Plant and Animal Invasion	3
STTRDE 143	Sustainable Farming Practices	4
Required Work-Based Learning Courses		
STTRDE 144	Practicum/Internship	5
Total Hours		**31**

Pathway

This is an **example course sequence** for students interested in pursuing Horticulture (Sustainable Urban). It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Advanced Certificate (AC).

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
STTRDE 136	Basic Horticulture	3
STTRDE 138	Horticultural Plant Science	3
	Hours	**6**
Semester 2		
STTRDE 137	Managing Urban Green Space	3
STTRDE 140	Greenhouse Crop Production	4
STTRDE 141	Soil Fertility and Assessment	3
	Hours	**10**
Semester 3		
STTRDE 139	Urban Horticultural Floral	3
STTRDE 142	Management of Plant and Animal Invasion	3
STTRDE 143	Sustainable Farming Practices	4
	Hours	**10**
Semester 4		
STTRDE 144	Practicum/Internship	5
	Hours	**5**
	Total Hours	**31**

Choose your courses with your College Advisor.

The Windy City Harvest Apprenticeship program is offered annually from February through October, and applications for the program are due in the fall.

Eligibility requirements:

- At least a high school diploma or GED
- Eligible to enroll in the City Colleges of Chicago (no account holds)

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Farmworkers and Laborers, Crop, Nursery, and Greenhouse

Job Description

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,181
Median 50th Percentile	$35,043
Senior-Level 90th Percentile	$59,599

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$29

Annual Job Openings

130 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	67.50%
A certificate	0.32%
Some college	5.32%
An Associate degree	2.00%
A Bachelor's degree	16.80%
A Master's or Professional degree	8.07%
A Doctoral degree or more	0.00%

24.87% continue their education beyond an associate degree

Farmers, Ranchers, and Other Agricultural Managers

Job Description

Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$9,354
Median 50th Percentile	$42,371
Senior-Level 90th Percentile	$208,395

Hourly Wages

Entry-Level 10th Percentile	$4
Median 50th Percentile	$20
Senior-Level 90th Percentile	$100

Annual Job Openings

226 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.16%
A certificate	8.82%
Some college	18.50%
An Associate degree	23.84%
A Bachelor's degree	44.67%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

44.67% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Technology Specialist Endorsement, Basic Certificate

College(s): TR

Program Code: 0438

The Basic Certificate-Technology Specialist Endorsement is for undergraduate degree holders with an Illinois Professional Educator License. The Technology Specialist Endorsement prepares students to integrate technologies into educational settings.

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 250	Systems Analysis and Design	3
EDUC 226	Foundations of Educational Technology	3
EDUC 227	Digital Tools for Teaching, Learning & Assessment	3
EDUC 228	Designing Active Learning Environments	3
EDUC 229	Digital Media Literacy in Classrooms	3
EDUC 230	Internet Technology Fundamentals with Hardware, Software & Operating Systems	3
EDUC 231	Social Media in the K-12 Classroom	3
EDUC 232	Visionary Leadership in Educational Technology	3
CIS 299	Special Topic Comp Info Sys	3
Total Hours		**27**

Pathway

This is an **example course sequence** for students interested in pursuing the Technology Specialist Endorsement Advanced Certificate (AC). It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Advanced Certificate.

Semester-by-Semester Plan

First Year		
Fall		**Hours**
EDUC 226	Foundations of Educational Technology	3
CIS 250	Systems Analysis and Design	3
	Hours	**6**
Spring		
EDUC 227	Digital Tools for Teaching, Learning & Assessment	3
EDUC 229	Digital Media Literacy in Classrooms	3
	Hours	**6**
Summer		
EDUC 228	Designing Active Learning Environments	3
EDUC 231	Social Media in the K-12 Classroom	3
	Hours	**6**
Second Year		
Fall		
EDUC 230	Internet Technology Fundamentals with Hardware, Software & Operating Systems	3
CIS 299	Special Topic Comp Info Sys	3
	Hours	**6**
Spring		
EDUC 232	Visionary Leadership in Educational Technology	3
	Hours	**3**
	Total Hours	**27**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional

guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Instructional Coordinators

Job Description

Develop instructional material, coordinate educational content, and incorporate current technology into instruction in order to provide guidelines to educators and instructors for developing curricula and conducting courses. May train and coach teachers. Includes educational consultants and specialists, and instructional material directors.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$51,253
Median 50th Percentile	$80,475
Senior-Level 90th Percentile	$128,554

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$39
Senior-Level 90th Percentile	$62

Annual Job Openings

407 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	0.00%
Some college	0.00%
An Associate degree	0.00%
A Bachelor's degree	24.97%
A Master's or Professional degree	74.90%
A Doctoral degree or more	0.14%

100.01% continue their education beyond an associate degree

Librarians and Media Collections Specialists

Job Description

Administer and maintain libraries or collections of information, for public or private access through reference or borrowing. Work in a variety of settings, such as educational institutions, museums, and corporations, and with various types of informational materials, such as books, periodicals, recordings, films, and databases. Tasks may include acquiring, cataloging, and circulating library materials, and user services such as locating and organizing information, providing instruction on how to access information, and setting up and operating a library's media equipment.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,806
Median 50th Percentile	$68,385
Senior-Level 90th Percentile	$111,718

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$33
Senior-Level 90th Percentile	$54

Annual Job Openings

215 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	0.00%
A certificate	4.45%
Some college	10.22%
An Associate degree	3.65%
A Bachelor's degree	10.93%
A Master's or Professional degree	69.32%
A Doctoral degree or more	1.44%

81.69% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Unity Programming, Basic Certificate

College(s): KK

Program Code: 0434

The Unity Programming Basic Certificate program is designed to equip students with the knowledge, skills, and expertise required in computer programming game design. This comprehensive industry certificate program delves into Unity certificate, that is widely considered an entry level certification needed for employment as a game design computer programmer. Throughout the program, students will engage in hands-on learning experiences, collaborative projects, and industry-relevant coursework under the guidance of experienced instructors and industry professionals. By immersing themselves in real-world scenarios and practical challenges, students will develop a robust skill set that prepares them for success in the competitive landscape of game design.

Program Requirements

Code	Title	Hours
General Education Coursework		
MATH 118	General Education Math (or higher)	4
Required Program Core		
GAME 253	Game Design III	3
GAME 254	Game Programming	3
GAME 299	Game Studio	3
Total Hours		**13**

Pathway

This is an example course sequence for students interested in pursuing a Unity Programming Basic Certificate. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC) in Unity Programming.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		**Hours**
MATH 118	General Education Math	4
GAME 253	Game Design III	3
	Hours	**7**
Semester 2		
GAME 254	Game Programming	3
GAME 299	Game Studio	3
	Hours	**6**
	Total Hours	**13**

All plans can be modified to fit the needs of part-time students by adding more semesters.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Web and Digital Interface Designers

Job Description

Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices,

websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$42,087
Median 50th Percentile	$92,905
Senior-Level 90th Percentile	$149,947

Hourly Wages

Entry-Level 10th Percentile	$20
Median 50th Percentile	$45
Senior-Level 90th Percentile	$72

Annual Job Openings

121 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.50%
A certificate	16.67%
Some college	4.17%
An Associate degree	16.67%
A Bachelor's degree	50.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

50.00% continue their education beyond an associate degree

Special Effects Artists and Animators

Job Description

Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$22,250
Median 50th Percentile	$43,302
Senior-Level 90th Percentile	$122,520

Hourly Wages

Entry-Level 10th Percentile	$11
Median 50th Percentile	$21
Senior-Level 90th Percentile	$59

Annual Job Openings

43 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	5.53%
A certificate	0.00%
Some college	39.68%
An Associate degree	1.70%
A Bachelor's degree	52.75%
A Master's or Professional degree	0.34%
A Doctoral degree or more	0.00%

53.09% continue their education beyond an associate degree

Urban Agriculture, Basic Certificate

College(s): OH

The Basic Certificate in Urban Agriculture at Olive-Harvey College is designed to equip students with foundational knowledge and skills in sustainable food production and community-based agriculture within urban environments. This program combines elements of environmental science, horticulture, public health, and community engagement to address the unique challenges and opportunities of urban agriculture. Through hands-on learning and interdisciplinary coursework, students will develop practical expertise in urban farming techniques, resource management, and sustainable practices that enhance local food systems and promote food security in underserved neighborhoods.

By completing this certificate, students will be prepared for entry-level roles in urban agriculture, including positions within community gardens, urban farms, nonprofit organizations, and municipal food programs. This program responds to the increasing demand for professionals skilled in sustainable agriculture and community food systems and is ideal for those interested in careers that intersect with urban farming, environmental stewardship, public health, and food policy.

Program Requirements

Code	Title	Hours
Required Program Core		
HORTIC 104	Plant Propagation	4
URB AG 110	Introduction to Urban Agriculture	3
URB AG 111	Hydroponics and Aquaponics	3
URB AG 112	Greenhouse Management	3
Required Work-Based Learning Courses		
URB AG 200	Applications in Urban Agriculture Studies	3
Total Hours		**16**

Pathway

This is an example course sequence for students interested in pursuing Urban Agriculture. This does not represent a contract or guarantee course availability. If this pathway is followed as outlined, students will earn a Basic Certificate (BC) in Urban Agriculture.

Semester-by-Semester Program Plan for Full-Time Students

Semester 1		Hours
URB AG 110	Introduction to Urban Agriculture	3
URB AG 111	Hydroponics and Aquaponics	3
HORTIC 104	Plant Propagation	4
	Hours	**10**
Semester 2		
URB AG 200	Applications in Urban Agriculture Studies	3
URB AG 112	Greenhouse Management	3
	Hours	**6**
	Total Hours	**16**

All plans can be modified to fit the needs of part-time students by adding more semesters.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Farmworkers and Laborers, Crop, Nursery, and Greenhouse

Job Description

Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$28,181
Median 50th Percentile	$35,043
Senior-Level 90th Percentile	$59,599

Hourly Wages

Entry-Level 10th Percentile	$14
Median 50th Percentile	$17
Senior-Level 90th Percentile	$29

Annual Job Openings

130 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	67.50%
A certificate	0.32%
Some college	5.32%
An Associate degree	2.00%
A Bachelor's degree	16.80%
A Master's or Professional degree	8.07%
A Doctoral degree or more	0.00%

24.87% continue their education beyond an associate degree

Farmers, Ranchers, and Other Agricultural Managers

Job Description

Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$9,354
Median 50th Percentile	$42,371
Senior-Level 90th Percentile	$208,395

Hourly Wages

Entry-Level 10th Percentile	$4
Median 50th Percentile	$20
Senior-Level 90th Percentile	$100

Annual Job Openings

226 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	4.16%
A certificate	8.82%
Some college	18.50%
An Associate degree	23.84%
A Bachelor's degree	44.67%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

44.67% continue their education beyond an associate degree

Web Development, Advanced Certificate

College(s): DA, MX, OH, TR, WR

Program Code: 0155

The Advanced Certificate program in Web Development prepares students for entry-level positions as Web site editors, developers, or designers. Students acquire an understanding of programming principles and languages incorporated in Web pages, and become proficient in HTML and related technologies. This program will also be useful to individuals whose job duties have expanded to include web site responsibilities or who wish to develop web pages for their businesses.

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 113	Human-Computer Interaction	3
CIS 114	Mobile Application Development	3
CIS 116	Operating System I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 281	Web Development III/Server Side Programming	3
CIS 282	Web Development IV/Web Database Integration	3
NET TEC 101	Client-Server Database I	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in Web Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) and an Advanced Certificate (AC) in Web Development.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**9**
Semester 2		
CIS 113	Human-Computer Interaction	3
CIS 182	Web Development II/Client Side Scripting	3
NET TEC 101	Client-Server Database I	3
CIS 144	Java Object Oriented Programming I	3
	Hours	**12**
Semester 3		
CIS 114	Mobile Application Development	3
CIS 281	Web Development III/Server Side Programming	3
	Hours	**6**
Semester 4		
CIS 282	Web Development IV/Web Database Integration	3
	Hours	**3**
	Total Hours	**30**

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Web Developers

Job Description

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,606
Median 50th Percentile	$103,018
Senior-Level 90th Percentile	$139,937

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$50
Senior-Level 90th Percentile	$67

Annual Job Openings

123 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.50%
A certificate	16.67%
Some college	4.17%
An Associate degree	16.67%
A Bachelor's degree	50.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

50.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Web Development, Associate in Applied Science

College(s): DA, MX, OH, WR

Program Code: 0409

The Web Development Associate in Applied Science program prepares students for entry-level positions in website design, development, and administration. Students will learn various programming principles, languages, and web technologies to effectively create and deploy dynamic websites. Students will also learn how to integrate web and database servers to increase the productivity and interactivity of a website. Potential job opportunities for students in this program include web designer, web developer, e-commerce manager, web technician, or web server administrator.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher Mathematics)	4
Fine Arts or Humanities course		3
Social and Behavioral Sciences course		3
Physical Sciences or Life Sciences course		3
Required Program Core		
CIS 101	Computer Science 101	3
CIS 113	Human-Computer Interaction	3
CIS 114	Mobile Application Development	3
CIS 116	Operating System I	3
CIS 144	Java Object Oriented Programming I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 260	Computer Information Systems Field Project	3
CIS 281	Web Development III/Server Side Programming	3
CIS 282	Web Development IV/Web Database Integration	3
BUSINES 111	Introduction To Business	3
NET TEC 101	Client-Server Database I	3
Program Electives		
Students must complete a minimum of 9 credit hours in the subjects Computer Information Systems (0032), Networking Technologies (0165), or Cybersecurity (0162).		9
Total Hours		**61**

At least one course must meet the Human Diversity (HD) requirement.

Pathway

This is an **example course sequence** for students interested in Web Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science Degree (AAS) in Web Development. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

The Web Development AAS program prepares students for entry-level positions in website design, development, and administration. Students will learn various programming principles, languages, and web technologies to effectively create and deploy dynamic websites. Students will also learn how to integrate web and database servers to increase the productivity and interactivity of a website. Potential job opportunities for students in this program include web designer, web developer, e-commerce manager, web technician, or web server administrator.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
Social and Behavioral Sciences course [1]		3
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**15**
Semester 2		
MATH 118	General Education Math (or higher Mathematics) [1]	4
CIS 113	Human-Computer Interaction	3
CIS 144	Java Object Oriented Programming I	3
CIS 182	Web Development II/Client Side Scripting	3
NET TEC 101	Client-Server Database I	3
	Hours	**16**
Semester 3		
Fine Arts & Humanities course (HD) [1]		3
BUSINES 111	Introduction To Business	3
CIS 114	Mobile Application Development	3
CIS 281	Web Development III/Server Side Programming	3
Select one of the following:		3
CIS 103	Fundamentals of Programming [2]	
Program Elective (p. 471) [2]		
	Hours	**15**
Semester 4		
Physical Sciences or Life Sciences course [1]		3
CIS 282	Web Development IV/Web Database Integration	3
CIS 260	Computer Information Systems Field Project	3
Program Elective (p. 471) [2]		3
Program Elective (p. 471) [2]		3
	Hours	**15**
	Total Hours	**61**

[1] General Education Requirement
[2] Program Elective (p. 471)

Program Elective

Code	Title	Hours
CIS 118	Information Technology Problem Solving	3
CIS 120	Introduction to Computer Applications	3
CIS 250	Systems Analysis and Design	3
Other recommended CIS, COMPSFI, or Networking Technology courses		

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Web Developers

Job Description

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,606
Median 50th Percentile	$103,018
Senior-Level 90th Percentile	$139,937

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$50
Senior-Level 90th Percentile	$67

Annual Job Openings

123 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.50%
A certificate	16.67%
Some college	4.17%
An Associate degree	16.67%
A Bachelor's degree	50.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

50.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Web Development, Basic Certificate

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0152

The Web Development BC program prepares students for entry-level positions in website design and development. Students will learn various programming principles, languages and web technologies to effectively create and deploy dynamic websites. Students will also learn how to integrate web and database servers to increase the productivity and interactivity of a website. Potential job opportunities for students in this program include web designer, web developer, e-commerce manager, or web technician.

Future Ready Eligible

Program Requirements

Code	Title	Hours
Required Program Core		
CIS 101	Computer Science 101	3
CIS 103	Fundamentals of Programming [1]	3
or CIS 144	Java Object Oriented Programming I	
CIS 113	Human-Computer Interaction	3
CIS 116	Operating System I	3
CIS 181	Web Development I/Basic Web Technologies	3
CIS 182	Web Development II/Client Side Scripting	3
Total Hours		**18**

[1] Students who intend to complete the Advanced Certificate and/or Associate in Applied Science degree in Web Development should take CIS 144 Java Object Oriented Programming I instead of CIS 103 Fundamentals of Programming, as CIS 144 Java Object Oriented Programming I is required for both the AC and AAS degree.

Pathway

This is an **example course sequence** for students interested in Web Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC) in Web Development.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
CIS 101	Computer Science 101	3
CIS 116	Operating System I	3
CIS 181	Web Development I/Basic Web Technologies	3
	Hours	**9**
Semester 2		
CIS 113	Human-Computer Interaction	3
CIS 182	Web Development II/Client Side Scripting	3
CIS 144 or CIS 103	Java Object Oriented Programming I [1] or Fundamentals of Programming	3
	Hours	**9**
	Total Hours	**18**

[1] Students in the Basic Certificate program may take CIS 103 Fundamentals of Programming or CIS 144 Java Object Oriented Programming I, but should take CIS 144 Java Object Oriented Programming I if they intend to complete the Advanced Certificate and/or Associate in Applied Science degree in Web Development, as CIS 144 Java Object Oriented Programming I is required for both the AC and AAS degree.

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings,

and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Web Developers

Job Description

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$57,606
Median 50th Percentile	$103,018
Senior-Level 90th Percentile	$139,937

Hourly Wages

Entry-Level 10th Percentile	$28
Median 50th Percentile	$50
Senior-Level 90th Percentile	$67

Annual Job Openings

123 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	12.50%
A certificate	16.67%
Some college	4.17%
An Associate degree	16.67%
A Bachelor's degree	50.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

50.00% continue their education beyond an associate degree

CITY COLLEGES OF CHICAGO

Welding Engineering Technology, Advanced Certificate

College(s): DA

Program Code: 0450

This program is for students looking to work within the exciting field of Welding Engineering Technology. Students will learn welding skills including MIG, TIG, metal cutting techniques and small machine operation related welding in addition to weld blueprint reading and related processes. CNC fabrication equipment commonly associated with welding fabrication will also be introduced. Students will be performing hands on welding and completing projects throughout this program to develop hands on skills that employers are looking for.

Program Requirements

Code	Title	Hours
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
340MFGT 154	Welding II GTAW	3
340MFGT 210	Automated Fabrication I	3
340MFGT 251	Welding III-Advanced Welding	3
Total Hours		**30**

Pathway

This is an **example course sequence** for students interested in pursuing Welding Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology and an Advanced Certificate (AC) in Welding Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 153	Welding I GMAW	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 154	Welding II GTAW	3
340MFGT 210	Automated Fabrication I	3
	Hours	**12**
Semester 3		
340MFGT 251	Welding III-Advanced Welding	3
	Hours	**3**
	Total Hours	**30**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Welders, Cutters, Solderers, and Brazers

Job Description

Use hand-welding, flame-cutting, hand-soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$37,177
Median 50th Percentile	$50,354
Senior-Level 90th Percentile	$74,680

Hourly Wages

Entry-Level 10th Percentile	$18
Median 50th Percentile	$24
Senior-Level 90th Percentile	$36

Annual Job Openings

454 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	74.38%
A certificate	11.64%
Some college	11.28%
An Associate degree	1.75%
A Bachelor's degree	0.94%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.94% continue their education beyond an associate degree

Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

Job Description

Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes workers who operate laser cutters or laser-beam machines.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$44,047
Median 50th Percentile	$49,970
Senior-Level 90th Percentile	$87,960

Hourly Wages

Entry-Level 10th Percentile	$21
Median 50th Percentile	$24
Senior-Level 90th Percentile	$42

Annual Job Openings

45 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	53.79%
A certificate	35.82%
Some college	10.39%
An Associate degree	0.00%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Millwrights

Job Description

Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile	$52,356
Median 50th Percentile	$95,605
Senior-Level 90th Percentile	$141,143

Hourly Wages

Entry-Level 10th Percentile	$25
Median 50th Percentile	$46
Senior-Level 90th Percentile	$68

Annual Job Openings

27 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	50.00%
A certificate	36.36%
Some college	9.09%
An Associate degree	4.55%
A Bachelor's degree	0.00%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

0.00% continue their education beyond an associate degree

Welding Engineering Technology, Associate in Applied Science

College(s): DA

Program Code: 0451

This program is for students looking to work within the exciting field of Welding Engineering Technology. Students will learn welding skills including MIG, TIG, Cutting and small machine operation related welding in addition to weld inspection techniques and processes. CNC fabrication equipment commonly associated with welding fabrication will also be introduced and utilized in projects. Students will learn about materials and their selection and processing applications. Students will be performing hands on welding and fabrication projects throughout this program to develop skills that employers are looking for and will allow students to succeed in careers in Welding Engineering Technology or if they choose to pursue further studies such as Bachelor's Degree programs in related fields.

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 140	College Algebra	4
Select three additional general education courses from any of the following categories: [1]		9
Fine Arts & Humanities		
Physical Sciences or Life Sciences		
Social and Behavioral Sciences		
Required Program Core		
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 153	Welding I GMAW	3
340MFGT 154	Welding II GTAW	3
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 188	Industrial Electricity I	3
340MFGT 210	Automated Fabrication I	3
340MFGT 211	AUTOMATED FABRICATION II	3
340MFGT 251	Welding III-Advanced Welding	3
340MFGT 252	Welding IV - Inspection	3
340MFGT 274	Materials II - Testing and Analysis	3
Total Hours		**61**

[1] At least one course must meet the Human Diversity (HD) requirement

Pathway

This is an **example course sequence** for students interested in pursuing Welding Engineering Technology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn Basic Certificates (BC) in Manufacturing Technology and CNC Technology, and an Advanced Certificate (AC) and Associate in Applied Science (AAS) in Welding Engineering Technology.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
340MFGT 105	Introduction to Advanced Manufacturing I	3
340MFGT 106	Introduction to Advanced Manufacturing II	3
340MFGT 107	Introduction to Advanced Manufacturing III	3
340MFGT 108	Robotics I	3

340MFGT 153	Welding I GMAW	3
	Hours	**15**
Semester 2		
340MFGT 109	Introduction to Manual Machining	3
340MFGT 110	CNC I Operations	3
340MFGT 154	Welding II GTAW	3
340MFGT 188	Industrial Electricity I	3
ENGLISH 101	Composition	3
	Hours	**15**
Semester 3		
340MFGT 171	Automated Metrology-Quality Assurance	3
340MFGT 210	Automated Fabrication I	3
340MFGT 251	Welding III-Advanced Welding	3
MATH 140	College Algebra	4
Social and Behavioral Sciences course (HD)		3
	Hours	**16**
Semester 4		
340MFGT 211	AUTOMATED FABRICATION II	3
340MFGT 252	Welding IV - Inspection	3
340MFGT 274	Materials II - Testing and Analysis	3
Fine Arts & Humanities course (HD)		3
Physical Sciences or Life Sciences course		3
	Hours	**15**
	Total Hours	**61**

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

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Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

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Entry-Level 10th Percentile	$37,177
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Hourly Wages

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Annual Job Openings

454 annual openings in Cook County

National Education Attainment

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Degree Program	% of Jobs
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A certificate	11.64%
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SAMPLE TRANSFER PATHWAYS

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/TransferGuides.aspx).

A

- Accounting, Associate in Arts (p. 481)
- Aerospace Engineering, Associate in Engineering Science (p. 483)
- Agricultural Engineering, Associate in Engineering Science (p. 484)
- Architectural Engineering, Associate in Engineering Science (p. 485)

B

- Bioengineering, Associate in Engineering Science (p. 486)
- Biology Education, Associate in Science (p. 487)
- Biology, Associate in Science (p. 489)
- Biomedical Engineering, Associate in Engineering Science (p. 491)
- Business/Economics, Associate in Arts (p. 492)
- Business/Finance, Associate in Arts (p. 494)

C

- Chemical Engineering, Associate in Engineering Science (p. 496)
- Chemistry Education, Associate in Science (p. 497)
- Chemistry, Associate in General Studies (p. 499)
- Child Development: Early Childhood Education, Associate in Arts (p. 501)
- Civil Engineering, Associate in Engineering Science (p. 503)
- Communications, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/communications-associate-arts/)
- Community Leadership, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/community-leadership-associate-arts/)
- Comparative Religion, Associate in Arts (p. 504)
- Computer Engineering, Associate in Engineering Science (p. 506)
- Computer Science, Associate in Engineering Science (p. 507)
- Computer Science, Associate in Science (p. 508)
- Creative and Publishable Writing, Associate in Arts (p. 509)
- Criminal Justice, Associate in Arts (p. 511)
- Cybersecurity Engineering, Associate in Engineering Science (p. 512)

D

- Dance, Associate in Arts (p. 513)

E

- Electrical Engineering, Associate in Engineering Science (p. 514)
- Elementary Education, Associate in Arts (p. 515)
- Engineering Mechanics, Associate in Engineering Science (p. 517)
- Engineering, Associate in Engineering Science (p. 518)
- English Education, Associate in Arts (p. 520)
- English, Associate in Arts (p. 522)
- Environmental Biology, Associate in Science (p. 524)
- Environmental Engineering, Associate in Engineering Science (p. 526)

F

- French Education, Associate in Arts (p. 527)

G

- Gender, Women's and Sexuality Studies: STEM, Health Equity, and Embodied Social Justice, Associate in Science (p. 529)
- Gender, Women's, and Sexuality Studies: Culture, Arts, Representation, and Empowerment, Associate in Arts (https://catalog.ccc.edu/transfer-pathways/gender-womens-and-sexuality-studies-associate-arts/)
- Gender, Women's, and Sexuality Studies: Social Justice and Policy, Associate in Arts (p. 530)
- General Science Education, Associate in Science (p. 532)
- Geology, Earth, and Environmental Science, Associate in Science (p. 534)

H

- History, Associate in Arts (p. 536)
- Human Development and Family Studies, Associate in Arts (p. 538)
- Human Geography, Associate in Arts (p. 540)

I

- Industrial Engineering, Associate in Engineering Science (p. 542)
- Insurance, Associate in Arts (p. 543)
- International Studies, Associate in Arts (p. 545)

J

- Journalism, Associate in Arts (p. 547)

L

- Latin American and Latin@ Studies, Associate in Arts (p. 549)

M

- Materials Science and Engineering, Associate in Engineering Science (p. 551)
- Mathematics Education, Associate in Science (p. 552)
- Mathematics, Associate in Science (p. 554)
- Mechanical Engineering, Associate in Engineering Science (p. 556)
- Music (General), Associate in Arts (p. 557)

N

- Nuclear, Plasma, Radiological Engineering, Associate in Engineering Science (p. 559)

P

- Philosophy, Associate in Arts (p. 560)
- Photography, Associate in Arts (p. 562)
- Physical Education, Associate in Arts (p. 564)
- Physics Education, Associate in Science (p. 566)
- Physics, Associate in Science (p. 568)
- Political Science, Associate in Arts (p. 569)
- Pre-Aviation, Associate in Science (p. 571)
- Psychology, Associate in Arts (p. 572)

S

- Social Science Education, Associate in Arts (p. 574)
- Social Work, Associate in Arts (p. 576)
- Sociology, Associate in Arts (p. 577)
- Spanish Education, Associate in Arts (p. 579)
- Special Education, Associate in Arts (p. 581)
- Systems Engineering and Design, Associate in Engineering Science (p. 583)

T

- Theater Art, Associate in Arts (p. 584)

U

- Urban Science, Associate in Arts (p. 586)
- Urban Studies, Associate in Arts (p. 587)

W

- Web Development, Associate in Science (p. 589)
- World Languages, Associate in Arts (p. 590)

Accounting, Associate in Arts

College(s): DA, HW, KK*, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Accounting. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts degree. Students completing the below pathway can also earn the Accounting Clerk Basic Certificate by taking BUSINES 284 Business Communications as an additional course.

An Associate in Arts degree with a concentration in accounting provides students with theoretical and practical skills needed for academic advancement and industry employment within the financial services industry and the general business and professional services area. Specifically, this program is targeting current employees working in the financial sector or students interested in obtaining an entry-level position within the accounting industry.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
Select one of the following:		4
MATH 140	College Algebra [1]	
MATH 204	Calculus For Business & Social Sciences [1]	
MATH 207	Calculus & Analytic Geometry I [1]	

ECON 201	Principles Of Economics I [1]	3
BUSINES 111	Introduction To Business [2,3]	3
Fine Arts & Humanities course [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
BUSINES 181	Financial Accounting [2,3]	4
BUSINES 213	Data Visualization and Presentation for Business [2,3]	3
ECON 202	Principles Of Economics II [1]	3
	Hours	**16**
Semester 3		
BUSINES 182	Managerial Accounting [2,3]	4
Physical Sciences course [1]		4
Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
	Hours	**14**
Semester 4		
BUSINES 183	Payroll Accounting [2,3]	3
BUSINES 250	Computerized Accounting Systems [2,3]	3
Life Sciences course [1]		3
Fine Arts course [1]		3
Pathway Elective (p. 482) [2,3]		3
	Hours	**15**
	Total Hours	**61**

1 General Education Requirement
2 Pathway Elective (p. 482)
3 Requirement for in Accounting Clerk Basic Certificate, along with BUSINES 284 Business Communicationsas an additional course

Pathway Elective

Code	Title	Hours
BUSINES 203	Intro Cost Accounting	3
BUSINES 208	Federal Income Tax	3
BUSINES 211	Business Law I	3
BUSINES 214	The Legal & Social Environment of Business	3
BUSINES 215	Corporate and Entity Federal Income Tax	3
BUSINES 217	Nonprofit Accounting	3

Aerospace Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts course or Humanities course [1,2]		3
PHYSICS 216	Dynamics	3
ENGR 225	Introduction to Thermodynamics	3
Pathway Elective (p. 483) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 483)

Pathway Electives

Code	Title	Hours
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
MATH 212	Linear Algebra	3
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
ENGR 111	Engineering Success Seminar	3
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Agricultural Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts course or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
ENGR 225	Introduction to Thermodynamics [3]	3
Pathway Elective (p. 484) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 484)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 225	Introduction to Thermodynamics	3
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

Architectural Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts course or Humanities course [1,2]		3
PHYSICS 217	Mechanics Of Materials	3
ENGR 225	Introduction to Thermodynamics	3
Pathway Elective (p. 485) [3]		3
	Hours	**15**
	Total Hours	**65**

1. General Education course
2. One course must satisfy the Human Diversity (HD) requirement
3. Pathway Elective (p. 485)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 215	Statics	3
PHYSICS 217	Mechanics Of Materials	3

CITY COLLEGES OF CHICAGO

Bioengineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
Pathway Elective (p. 486) [3]		3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts course or Humanities course [1,2]		3
BIOLOGY 121	Biology I [3]	5
ENGR 225	Introduction to Thermodynamics [3]	3
	Hours	**14**
	Total Hours	**64**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 486)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
BIOLOGY 121	Biology I	5
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3

Biology Education, Associate in Science

College(s): DA, HW, KK, MX*, OH, TR, WR*

Program Code: 0211

Sample Transfer Pathway

The Biology Education pathway begins your preparation to teach biology to high school students. Biology teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Biology endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in science education.

This is an **example course sequence** for students interested in pursuing Biology Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
BIOLOGY 121	Biology I [1]	5
EDUC 101	Introduction To Education [2]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
BIOLOGY 122	Biology II [1]	5
MATH 208	Calculus & Analytic Geometry II (or higher) [1]	5
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
	Hours	**16**
Semester 3		
Fine Arts course [1]		3
Select one of the following:		3
Earth Science course [2]		
EDUC 203	Educational Psychology [2]	
CHEM 201	General Chemistry I [1]	5
ANTHRO 202	Cultural Anthropology (HD) [1]	3
	Hours	**14**
Semester 4		
Humanities course [1]		3
POL SCI 201	The National Government [2]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3

CHEM 203	General Chemistry II [2]	5
	Hours	**14**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Biology, Associate in Science

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0211

Sample Transfer Pathway

When you think of life on earth, your first thoughts are probably about familiar animals. That is only a small sample of the types of life on our planet, which include plants, bacteria, fungi, and animals in a vast array of body forms and types. Biology is the study of life, individual organisms, their communities, and the systems, cells, and processes that make up living matter. With an AS degree you can transfer to a four-year college as a junior, obtain your bachelor's degree and work in fields like biochemistry, genetics, marine biology, zoology, ecology and much more.

This is an **example course sequence** for students interested in pursuing Biology. This pathway does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
PSYCH 201	General Psychology [1]	3
MATH 140	College Algebra [1]	4
BIOLOGY 121	Biology I [1]	5
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
BIOLOGY 122	Biology II [1]	5
SPEECH 101	Fundamentals of Speech Communication [1]	3
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**14**
Semester 3		
Pathway Elective (p. 489) [2]		4
MATH 125	Introductory Statistics [1]	4
Humanities course [1]		3
CHEM 201	General Chemistry I [1]	5
	Hours	**16**
Semester 4		
Fine Arts course [1]		3
Pathway Elective (p. 489) [2]		4
Pathway Elective (p. 489) [2]		4
CHEM 203	General Chemistry II [2]	5
	Hours	**16**
	Total Hours	**61**

[1] General Education Requirement
[2] Pathway Elective (p. 489)

Pathway ElectiveS

Code	Title	Hours
BIOLOGY 122	Biology II	5
BIOLOGY 226	Human Structure and Function I	4
BIOLOGY 227	Human Structure and Function II	4
BIOLOGY 241	Genetics	3
BIOLOGY 242	Evolution	2-3
BIOLOGY 251	Molecular Biology I	4
BOTANY 201	General Botany I	4
CHEM 121	Basic Chemistry I [1]	4

CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
CHEM 212	Survey of Organic & Biochemistry	4
Select one of the following:		6-8
MATH 140 & MATH 141	College Algebra and Plane Trigonometry	
MATH 143	Pre Calculus [2]	
MATH 207	Calculus & Analytic Geometry I	5
MATH 208	Calculus & Analytic Geometry II	5
MCROBIO 233	General Microbiology	4
PHYSICS 221	Mechanics, Waves, and Heat	5
PHYSICS 222	Electricity, Light and Modern Physics	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5

[1] CHEM 121 Basic Chemistry I should only be taken if the student needs it for admittance into CHEM 201 General Chemistry I.

[2] MATH 143 Pre Calculus should only be taken if the student needs it for admittance into MATH 207 Calculus & Analytic Geometry I.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Biomedical Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
Pathway Elective (p. 491) [3]		4
	Hours	**17**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts course or Humanities course [1,2]		3
BIOLOGY 115	Human Biology [3]	4
Pathway Elective (p. 491) [3]		3
	Hours	**13**
	Total Hours	**64**

1. General Education course
2. One course must satisfy the Human Diversity (HD) requirement
3. Pathway Elective (p. 491)

Pathway Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3

CITY COLLEGES OF CHICAGO

Business/Economics, Associate in Arts

College(s): DA, HW, KK, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This area of study combines business classes with courses in economics. An Associate in Arts with a business emphasis prepares you to transfer to a four-year university to earn a Bachelor's degree that opens the door to a career in business, management, marketing, accounting, investment banking, stock market trading and lots more. This pathway will supply you with basic tools you need to meet the demands of the workforce economy.

This is an **example course sequence** for students interested in pursuing Business. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you earn your associate degree, which will increase your chances of transfer to bachelor's-level programs. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 140	College Algebra [1]	4
Fine Arts course [1]		3
ECON 201	Principles Of Economics I [1]	3
BUSINES 181	Financial Accounting [2]	4
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
BUSINES 182	Managerial Accounting [2]	4
SPEECH 101	Fundamentals of Speech Communication [1]	3
Mathematics Elective [2]		4
ECON 202	Principles Of Economics II [1]	3
	Hours	**17**
Semester 3		
PHIL 105	Logic [1]	3
Physical Sciences course with lab [1]		4
Mathematics Elective [2]		4
Select one of the following:		3
ENGLISH 105	Business Writing [2]	
BUSINES 231	Marketing [2]	
BUSINES 269	Principles Of Management [2]	
	Hours	**14**
Semester 4		
History course [1]		3
Fine Arts & Humanities course (HD) [1]		3
Life Sciences course [1]		4
Mathematics Elective [2]		4
	Hours	**14**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 492)

Pathway ElectiveS

Code	Title	Hours
MATH 125	Introductory Statistics	4
MATH 141	Plane Trigonometry	3
MATH 143	Pre Calculus	6

MATH 144	Finite Mathematics	4
MATH 204	Calculus For Business & Social Sciences	4-5
MATH 207	Calculus & Analytic Geometry I	5

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Business/Finance, Associate in Arts

College(s): DA, HW, KK, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an example course sequence for students interested in pursuing Business/Finance. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you earn your associate degree, which will increase your chances of transfer to bachelor's-level programs. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
Select one of the following:		4
MATH 140	College Algebra [1]	
MATH 204	Calculus For Business & Social Sciences [1]	
MATH 207	Calculus & Analytic Geometry I [1]	
Business Elective [2]		3
BUSINES 111	Introduction To Business [2]	3
Fine Arts course [1]		3
	Hours	**16**

Semester 2		
ENGLISH 102	Composition [1]	3
Humanities course [1]		3
BUSINES 181	Financial Accounting [2]	4
History course [1]		3
Business Elective [2]		3
	Hours	**16**
Semester 3		
BUSINES 182	Managerial Accounting [2]	4
BUSINES 241	Introduction To Finance [2]	3
Life Sciences course [1]		3
Fine Arts course [1]		3
ECON 201	Principles Of Economics I [1]	3
	Hours	**16**
Semester 4		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Physical Sciences course [1]		4
ECON 202	Principles Of Economics II [1]	3
Business Elective [2]		3
	Hours	**13**
	Total Hours	**61**

[1] General Education Requirement
[2] Pathway Elective (p. 494)

Pathway Elective

Code	Title	Hours
BUSINES 141	Business Mathematics	3
BUSINES 213	Data Visualization and Presentation for Business	3
BUSINES 214	The Legal & Social Environment of Business	3
BUSINES 216	Entrepreneurship	3
BUSINES 237	Selling	3

BUSINES 244	Personal Finance	3
CIS 123	Microcomputer Spreadsheets	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Chemical Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1,2]	5
Social and Behavioral Sciences [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
MATH 210	Differential Equations [3]	3
	Hours	**16**
Semester 4		
Fine Arts or Humanities course [1,2]		3
CHEM 205	Organic Chemistry I	6
ENGR 225	Introduction to Thermodynamics	3
Pathway Elective (p. 496) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 496)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3

Chemistry Education, Associate in Science

College(s): DA, HW, KK, MX*, OH*, TR, WR*

Program Code: 0211

Sample Transfer Pathway

The Chemistry Education pathway begins your preparation to teach chemistry to high school students. Chemistry teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with an Chemistry endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in science education.

This is an **example course sequence** for students interested in pursuing Chemistry Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
EDUC 101	Introduction To Education [2]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
ANTHRO 202	Cultural Anthropology (HD) [1]	3
CHEM 203	General Chemistry II [1]	5
MATH 208	Calculus & Analytic Geometry II (or higher) [1]	5
	Hours	**16**
Semester 3		
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
Fine Arts course [1]		3
CHEM 205	Organic Chemistry I [1]	6
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
	Hours	**16**
Semester 4		
Humanities course [1]		3
EDUC 203	Educational Psychology [2]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3

POL SCI 201	The National Government [1]	3
	Hours	**12**
	Total Hours	**60**

1 General Education Requirement
2 Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Chemistry, Associate in General Studies

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0203

Sample Program Pathway

When you think of chemistry, you might think of atoms and bonds, bubbling beakers and smoking test tubes. In reality, chemistry students use mathematics, theory, and experimentation to study the matter that makes up physical substances. People working in the field of chemistry make valuable contributions in a range of fields, including medicine, biology, psychology, and geology. Follow the chemistry pathway and you'll explore many different topics, from the chemical basis for life to the environmental problems caused by chemicals. The chemistry pathway leads to an associate degree which will allow you to transfer as a junior to a four-year college to complete your bachelor's degree. You might become a pharmacist, scientist, forensics specialist, food scientist, dentist, materials engineer or hazardous materials specialist.

This is an **example course sequence** for students interested in earning a degree in Chemistry. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in General Studies (AGS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
CHEM 201	General Chemistry I [1]	5
MATH 207	Calculus & Analytic Geometry I [1]	5
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [2]	3
CHEM 203	General Chemistry II [2]	5
MATH 208	Calculus & Analytic Geometry II [2]	5
Fine Arts & Humanities course [1]		3
	Hours	**16**
Semester 3		
CHEM 205	Organic Chemistry I [2]	6
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion [2]	5
Social and Behavioral Sciences course [1]		3
	Hours	**14**
Semester 4		
CHEM 207	Organic Chemistry II [2]	6
PHYSICS 236	Engineering Physics II: Electricity & Magnetism [2,3]	5
Fine Arts & Humanities course [1]		3
	Hours	**14**
	Total Hours	**60**

1 General Education Requirement
2 Pathway Elective
3 Students interested in a Bachelor of Arts in Chemistry rather than a BS should substitute PHYSICS 221 Mechanics, Waves, and Heat/PHYSICS 222 Electricity, Light and Modern Physics for PHYSICS 235 Engineering Physics I: Mechanics & Wave Motion/PHYSICS 236 Engineering Physics II: Electricity & Magnetism Students interested in a Bachelor of Science in Chemistry should take MATH 209 Calculus & Analytic Geometry III

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Child Development: Early Childhood Education, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR*

Program Code: 0210

Sample Transfer Pathway

Are you interested in learning about how children learn, grow and thrive? Does the idea of joining the ranks of in-demand child care professionals excite you? If yes, then the Child Development Early Childhood pathway may be right for you. As a Child Development student at City Colleges you will learn about children's social, emotional, and physical development, and the theories and real world skills required to teach children from birth to age 8.

There are a variety of education pathways students can explore. Outlined here are the steps we suggest you take to earn an Associate in Arts degree with a built-in Basic Certificate in Child Development: Pre-school Education. You can then transfer to a four-year institution. Early Childhood teachers at public schools in Illinois are required to earn a bachelor's degree from an accredited College of Education and an Early Childhood Professional Educator license from the Illinois State Board of Education. If you are looking for shorter-term degree options, be sure to ask your College Advisor about City the Colleges' Advanced Certificate and Associate in Applied Science degrees in Early Childhood Education.

This is an **example course sequence** for students interested in pursuing child development. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree and a Basic Certificate (BC) in Child Development: Pre-school Education. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 121	Math For Elementary Teachers I [1]	4
Select one of the following:		3
PSYCH 201	General Psychology [1]	
ANTHRO 202	Cultural Anthropology [1]	
Social and Behavioral Sciences course [1]		
LIT 130	Children's Literature [1]	3
CHLD DV 120	Intro To Early Childhood Education Group Care [2,3]	3
	Hours	**16**

Semester 2		
ENGLISH 102	Composition [1]	3
EDUC 101	Introduction To Education [2]	3
Humanities course (HD) [1]		3
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
CHLD DV 107	Health Safety And Nutrition [2,3]	3
	Hours	**15**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Life Sciences course [1]		4
MATH 122	Math For Elementary Teachers II [2]	4
CHLD DV 101	Human Growth & Development I [2,3]	4
	Hours	**15**
Semester 4		
POL SCI 201	The National Government [1]	3
Physical Sciences course [1]		4
CHLD DV 149	Creative Activities For Young Children [2,3]	3
CHLD DV 262	Child, Family & Community Relations [2,3]	3
Fine Arts course [1]		3
	Hours	**16**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective
[3] Requirement for Basic Certificate in Child Development: Pre-School Education

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Civil Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
Pathway Elective (p. 503) [3]		
	Hours	**12**
	Total Hours	**62**

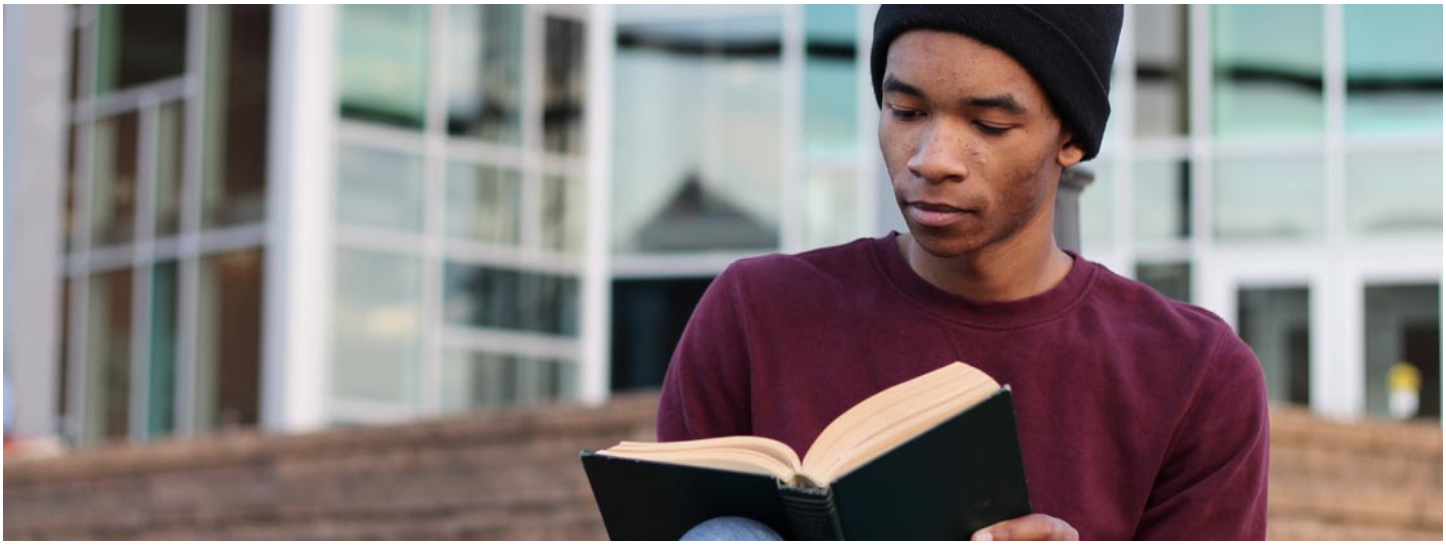
1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 503)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 225	Introduction to Thermodynamics	3
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Comparative Religion, Associate in Arts



College(s): DA*, HW, KK*, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

If you are fascinated by religious questions and traditions, and enjoy exploring many points of view, consider this area of study. In jobs that require relating to others, reaching out to them, building bridges, or incorporating many perspectives at once, knowledge of religion will provide an excellent foundation.

This is an **example course sequence** for students interested in pursuing Comparative Religion. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. World Language courses are included for students who are transferring to a four-year institution with a World Languages requirement. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
Fine Arts course [1]		3
Humanities course [1]		3
Pathway Elective (p. 505) [2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Pathway Elective (p. 505) [2]		3
Physical Sciences course [1]		4
Fine Arts & Humanities course [1]		3
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 3		
Pathway Elective (p. 505) [2]		3
SPEECH 101	Fundamentals of Speech Communication [1]	3
Social and Behavioral Sciences course [1]		3
World Language course [2]		4
	Hours	**13**
Semester 4		
Life Sciences course [1]		4
World Language course [2]		4
Social and Behavioral Sciences course [1]		3
Pathway Elective (p. 505) [2]		3
Pathway Elective (p. 505) [2]		3
	Hours	**17**
	Total Hours	**62**

[1] General Education Requirement

[2] Pathway Elective (p. 505)

Pathway ElectiveS

Code	Title	Hours
ANTHRO 202	Cultural Anthropology (HD)	3
PHIL 108	Philosophy Of Religion	3
RELIGN 101	Introduction To Religion	3
RELIGN 102	The Bible - Hebrew Old Test	3
RELIGN 103	The Bible - New Testament	3
RELIGN 104	Introduction to Islam	3
RELIGN 106	Comparative Religion I/Eastern Religion (HD)	3
RELIGN 107	Com Rel II Western Religion (HD)	3
RELIGN 108	Religion And Psychology	3
SOC 110	Religion And Society	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Computer Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

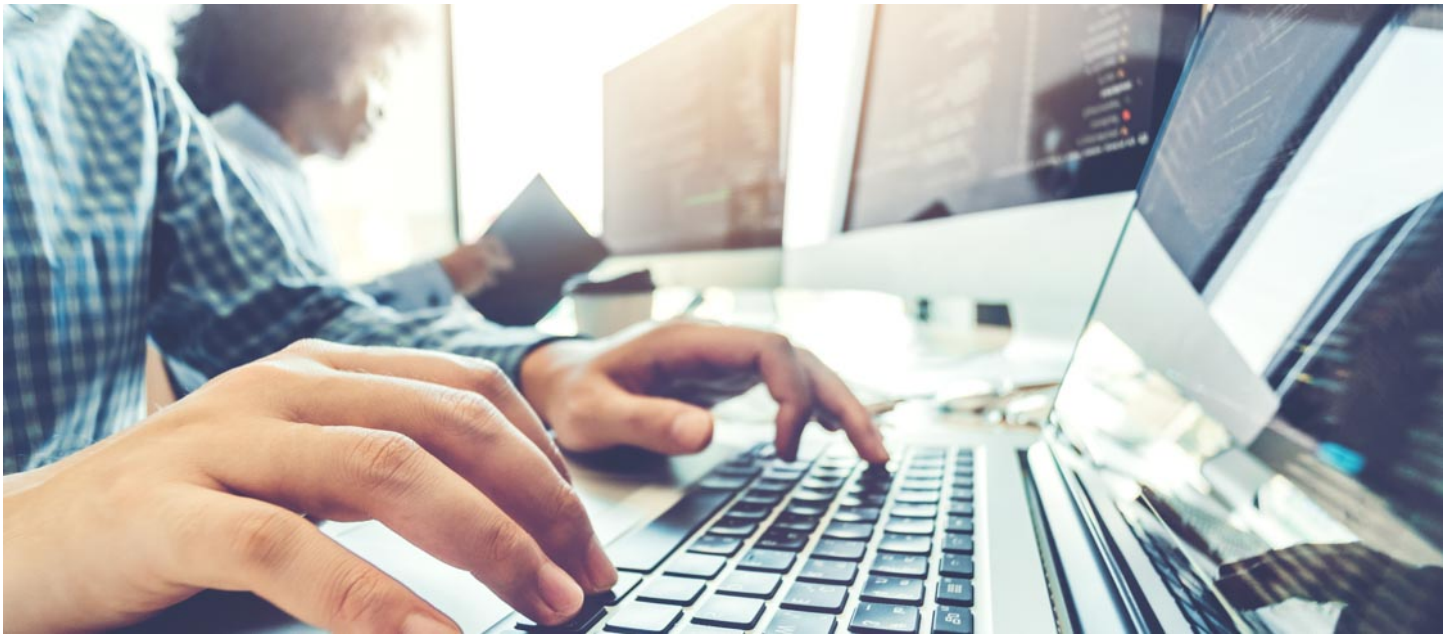
Semester 1		**Hours**
ENGLISH 101	Composition	3
MATH 207	Calculus & Analytic Geometry I	5
CHEM 201	General Chemistry I	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203 or BIOLOGY 115	General Chemistry II [3] or Human Biology	4-5
	Hours	**17-18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
Pathway Elective (p. 506) [3]		3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
CIS 242 or CIS 244	C++ Object Oriented Programming II [3] or Java Object Oriented Programming II	3
MATH 146	Discrete Mathematics [3]	4
Pathway Elective (p. 506) [3]		3
	Hours	**16**
	Total Hours	**65-66**

1 General Education course
2 One course must meet the Human Diversity (HD) requirement
3 Pathway Elective (p. 506)

Pathway Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

Computer Science, Associate in Engineering Science



College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203 or BIOLOGY 115	General Chemistry II [3] or Human Biology	4-5
	Hours	**17-18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
Pathway Elective (p. 507) [3]		3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1]		3
CIS 242 or CIS 244	C++ Object Oriented Programming II [3] or Java Object Oriented Programming II	3
MATH 146	Discrete Mathematics [3]	4
Pathway Elective (p. 507) [3]		3
	Hours	**16**
	Total Hours	**65-66**

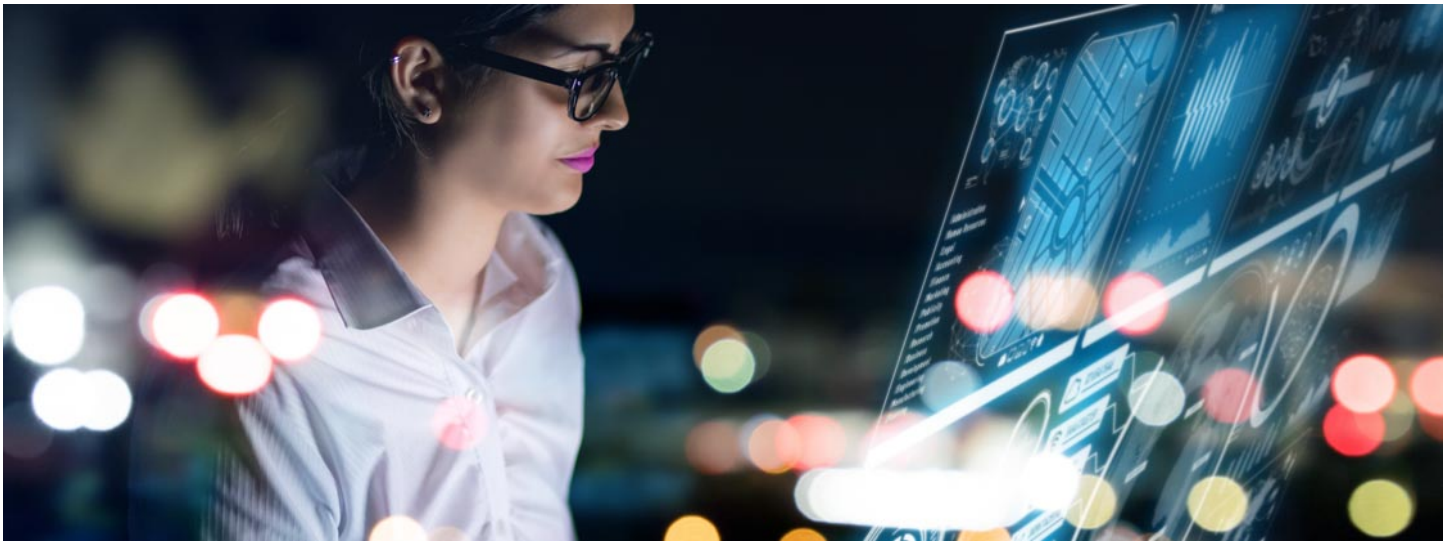
1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 507)

Pathway Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3

CITY COLLEGES OF CHICAGO

Computer Science, Associate in Science



College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0211

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Computer Science. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
CIS 103	Fundamentals of Programming	3
MATH 146	Discrete Mathematics [1,3]	4
Humanities course [1]		3
Physical Sciences course		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Social and Behavioral Sciences course [1]		3
Social and Behavioral Sciences course		3
MATH 207	Calculus & Analytic Geometry I (or any Mathematics course)	4-5
CIS 142 or CIS 144	C++ Object Oriented Programming I or Java Object Oriented Programming I	3
	Hours	**16-17**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
CIS 114	Mobile Application Development	3
CIS 242 or CIS 244	C++ Object Oriented Programming II or Java Object Oriented Programming II	3
MATH 208 or CIS 245	Calculus & Analytic Geometry II (or other Math) or Principles of Software Development	3-5
Elective course [4]		3
	Hours	**15-17**
Semester 4		
Life Sciences course [1]		4
Physical Sciences or Life Sciences course [1]		3
Fine Arts course [1]		3
MATH 209 or MATH 125	Calculus & Analytic Geometry III or Introductory Statistics	4-5
	Hours	**14-15**
	Total Hours	**61-65**

1 General Education Requirement
2 Pathway Elective
3 ALEKS-based placement **or** prerequisite: MATH 140 College Algebra
4 60 credit hours are required to complete an Associate in Science degree. Depending on math choices, students may need to complete an additional elective course to earn a minimum of 60 credit hours.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Creative and Publishable Writing, Associate in Arts

College(s): DA*, HW, KK, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

Passionate about creative writing? Ever considered a career in writing and/or publishing? The Creative & Publishable Writing (CPW) Pathway is a program concentration within the Associate of Arts degree that seeks to expose learners to a variety of creative writing genres, including fiction, poetry, and non-fiction. This CPW Pathway offers an interdisciplinary approach to creative expression and provides excellent preparation for a job in the publishing industry or a degree in creative writing. It will also serve those interested in transferring to baccalaureate institutions with undergraduate major and/or minor programs in Creative Writing. The CPW Pathway offers many benefits, such as discovering your voice through artistic expression, participating in a writers' community, and gaining experience designing, editing, and publishing. Also, this program can extend beyond creative writing as well. Writing intensive fields such as law, business, and marketing are always looking for people who can "show, not tell" a story through writing. The goal of the program is not to just create creative writers, but creative people.

This is an **example course sequence** for students interested in pursuing Creative and Publishable Writing. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible.

Visit www.itransfer.org (http://www.itransfer.org/) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
Any pathway elective in LIT (p. 510) [1,2]		3
General Education Mathematics Course [1]		4
Select one of the following: [2]		3
ENGLISH 241	Creative Writing	
ENGLISH 243	Creative Writing, Fiction	
ENGLISH 245	Creative Writing, Poetry	
ENGLISH 247	Creative Writing, Non-Fiction	
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Social and Behavioral Sciences Course [1]		3
Physical Sciences Course [1]		3
Any pathway elective in ENGLISH (p. 510) [1,2]		3
Select one of the following: [2]		3
ENGLISH 241	Creative Writing	
ENGLISH 243	Creative Writing, Fiction	
ENGLISH 245	Creative Writing, Poetry	
ENGLISH 247	Creative Writing, Non-Fiction	
	Hours	**15**
Semester 3		
Any pathway elective in LIT (HD) (p. 510) [1,2]		3
Life Sciences course (with lab) [1]		4
Social and Behavioral Sciences course [1]		3
Select one of the following: [2]		3

ENGLISH 241	Creative Writing	
ENGLISH 243	Creative Writing, Fiction	
ENGLISH 245	Creative Writing, Poetry	
ENGLISH 247	Creative Writing, Non-Fiction	
Elective		3
	Hours	**16**
Semester 4		
Fine Arts Course [1]		3
Social and Behavioral Sciences course [1]		3
Select one of the following: [2]		3
ENGLISH 241	Creative Writing	
ENGLISH 243	Creative Writing, Fiction	
ENGLISH 245	Creative Writing, Poetry	
ENGLISH 247	Creative Writing, Non-Fiction	
Elective		3
Elective		3
	Hours	**15**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective

Pathway Electives

Code	Title	Hours
ENGLISH 105	Business Writing	3
ENGLISH 107	Report Writing	1-3
ENGLISH 150	College Newspaper	1
ENGLISH 151	News Reporting And Writing	3
ENGLISH 152	Intro To Mass Communication	3
ENGLISH 207	Writing the Screenplay	3
LIT 110	Introduction To Literature	3
LIT 111	Poetry	3
LIT 112	Drama	3
LIT 113	Fiction	3
LIT 114	Ideas In Prose	3
LIT 115	Great Books Seminar/Topics Literature	3
LIT 116	American Literature from Colonial Days to Civil War	3
LIT 117	American Literature from the Civil War to the 20th Century	3
LIT 118	English Literature from its Beginnings to the Age of Johnson	3
LIT 119	English Literature from the Romantic Revival to the 20th Century	3
LIT 120	Contemporary British & American Literature	3
LIT 121	Contemporary African American Literature (HD)	3
LIT 122	Perspectives in Black Literature (HD)	3
LIT 123	Literature of the U.S. from the Civil War to the Present	3
LIT 124	Experimental Literature	3
LIT 125	Psychology in Black Literature (HD)	3
LIT 126	Contemporary American Literature	3
LIT 127	Contemporary British Literature	3
LIT 128	Latin American Literature (HD)	3
LIT 129	U.S. Latino (a) Literature (HD)	3
LIT 130	Children's Literature	3
LIT 131	Survey Of Afro-American Poetry (HD)	3
LIT 132	Native American Literature (HD)	3
LIT 133	African American Fiction (HD)	3
LIT 137	The Black Woman In Black Fiction (HD)	3
LIT 150	Women's Literature (HD)	3
LIT 153	Gay and Lesbian Literature (HD)	3
LIT 155	Literature and Film	3
LIT 156	Creative Non-fiction	3
LIT 157	Graphic Novels	3
LIT 211	Shakespeare	3
LIT 220	World Literature	3
LIT 223	Intro To Literary Genres	3
LIT 299	Science Fiction: Psychology & Prophecy	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Criminal Justice, Associate in Arts

College(s): DA, HW, KK, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Criminal Justice. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
Fine Arts course [1]		3
PSYCH 201	General Psychology [1]	3
CRM JUS 102	Administration of Criminal Justice [2]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Physical Sciences course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
SOC 201	Intro To the Study Of Society [1]	3
CRM JUS 114	Administration of Juvenile Justice [2]	3
	Hours	**16**
Semester 3		
Life Sciences course [1]		4
CRM JUS 155	Introduction To Corrections [2]	3
Fine Arts & Humanities course [1]		3
World Languages [2]		4
	Hours	**14**
Semester 4		
PHIL 107	Ethics [1]	3
Social and Behavioral Sciences course (HD) [1]		3
CRM JUS 250	Introduction To Criminology [2]	3
World Languages [2]		4
Elective [2]		3
	Hours	**16**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Cybersecurity Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203 or BIOLOGY 115	General Chemistry II [3] or Human Biology	4-5
	Hours	**17-18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
MATH 146	Discrete Mathematics	4
	Hours	**17**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
CIS 242 or CIS 244	C++ Object Oriented Programming II [3] or Java Object Oriented Programming II	3
MATH 212	Linear Algebra	3
Pathway Elective (p. 512) [3]		3
	Hours	**15**
	Total Hours	**65-66**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 512)

Pathway Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

Dance, Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR*, WR*

Program Code: 0210

Sample Transfer Pathway

An Associate in Arts with a focus in Dance provides students with the necessary skills and vocabulary to succeed in a multitude of performing arts careers, such as dancer, choreographer, dance educator, personal trainer, physical therapist, and more.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Physical Sciences or Life Sciences [1]		4
Fine Arts & Humanities or Theater [1]		3
Social and Behavioral Sciences [1]		3
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
Physical Sciences or Life Sciences course [1]		3
FIN ART 112	Dance Appreciation [1]	3
Studio Dance course [2]		2
Studio Dance course [2]		2
	Hours	**16**
Semester 3		
Fine Arts or Theater course [1]		3
Social and Behavioral Sciences course [1]		3
Studio Dance course [2]		2
Studio Dance course [2]		2
Studio Dance course [2]		2
Studio Dance course [2]		2
	Hours	**14**
Semester 4		
Fine Arts & Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
Studio Dance course [2]		2
Studio Dance course [2]		2
Studio Dance course [2]		2
Studio Dance course [2]		2
	Hours	**14**
	Total Hours	**61**

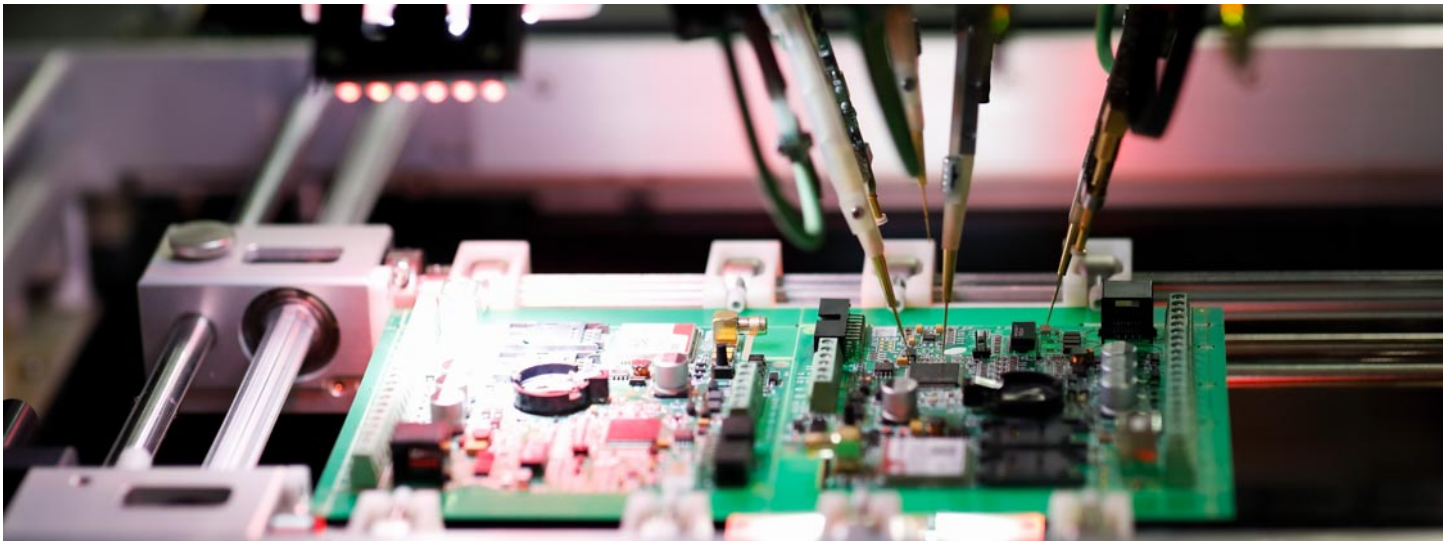
[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Electrical Engineering, Associate in Engineering Science



College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203 or BIOLOGY 115	General Chemistry II [3] or Human Biology	4-5
	Hours	**17-18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
Pathway Elective (p. 514) [3]		3
Pathway Elective (p. 514) [3]		3
Pathway Elective (p. 514) [3]		3
	Hours	**15**
	Total Hours	**64-65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 514)

Pathway Electives

Code	Title	Hours
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CIS 242	C++ Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

Elementary Education, Associate in Arts

College(s): DA, HW, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

Are you interested in rewarding work that changes the lives of students? Are you organized, patient, and caring? If yes, then the Elementary Education pathway may be right for you. Elementary school teachers work with students from kindergarten through eighth grade, and teach a variety of subjects. Elementary school teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with an Elementary Education endorsement from the Illinois State Board of Education. The pathway below is ideal for students planning to transfer to a four-year institution to become teachers, or for students interested in going right to work as a Teacher Assistant.

This is an **example course sequence** for students interested in pursuing Elementary Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 121	Math For Elementary Teachers I [1]	4
Fine Arts course [1]		3
EDUC 101	Introduction To Education [2]	3
Select one of the following:		3
PSYCH 201	General Psychology [1]	
Social and Behavioral Sciences course [1]		
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 122	Math For Elementary Teachers II [2]	4
LIT 130	Children's Literature [1]	3
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
EDUC 102	Using Technology in The Class [2]	3
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
ANTHRO 202	Cultural Anthropology (HD) [1]	3
EDUC 203	Educational Psychology [2]	3
POL SCI 201	The National Government [1]	3

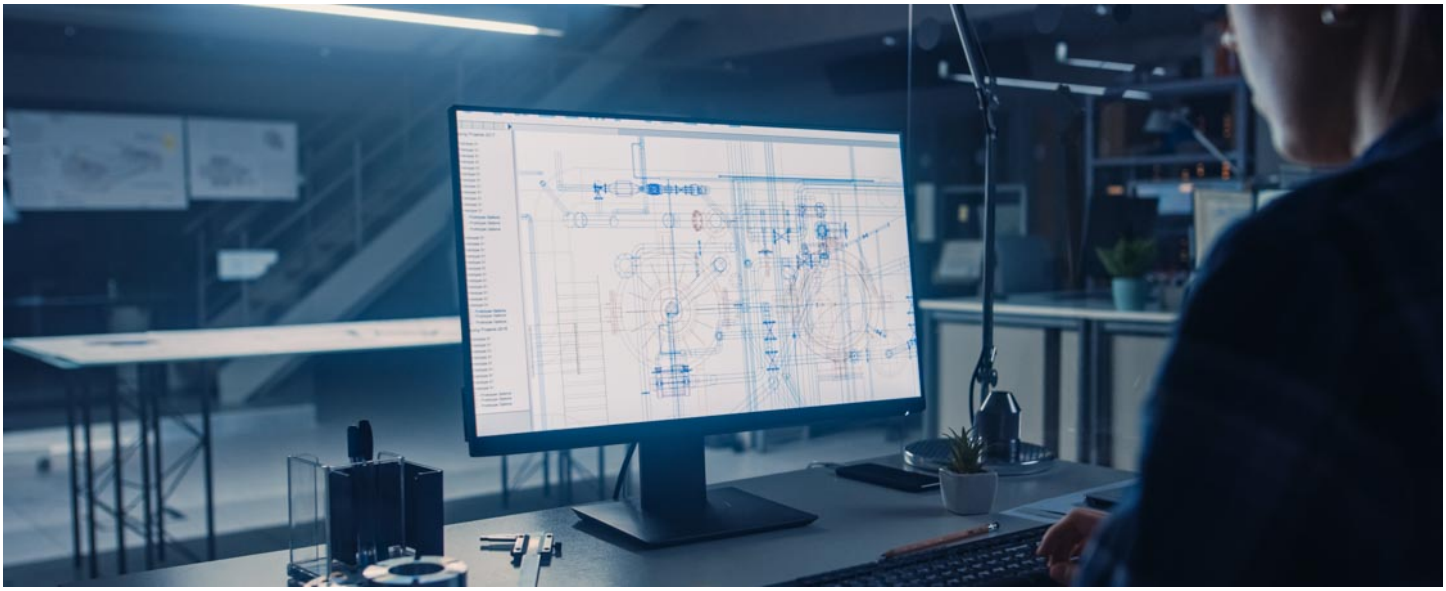
Physical Sciences course [1]		4
	Hours	**16**
Semester 4		
EDUC 103 or CHLD DV 205	Students With Disabilities in School [2] or Development of Exceptional Child	3
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
CHLD DV 101	Human Growth & Development I [2]	4
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies [1]	
Humanities course [1]		
	Hours	**14**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Engineering Mechanics, Associate in Engineering Science



College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
ENGR 225	Introduction to Thermodynamics [3]	3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 517)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
Pathway Elective (p. 518) [3,4]		5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
Pathway Elective (p. 518) [3]		3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
Pathway Elective (p. 518) [3]		5
Pathway Elective (p. 518) [3]		3
	Hours	**14**
	Total Hours	**64**

1. General Education course
2. One course must satisfy the Human Diversity (HD) requirement
3. Pathway Elective (p. 518)
4. CHEM 203 General Chemistry II or BIOLOGY 121 Biology I recommended for Semester 2 Pathway Elective

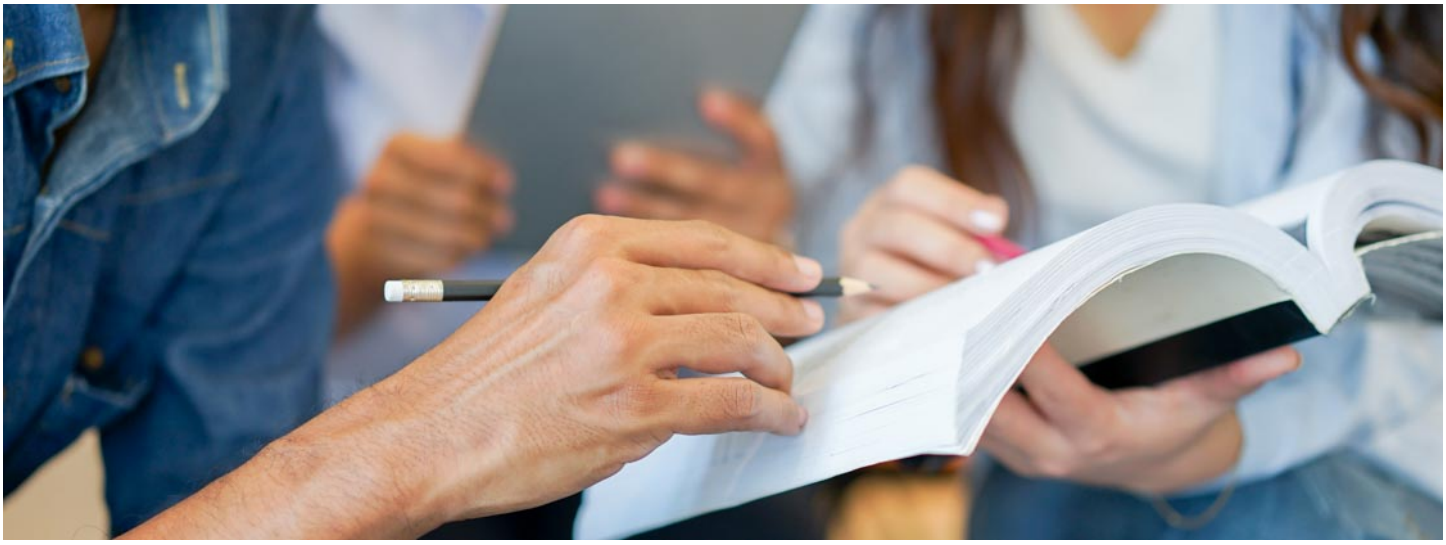
Pathway Electives

Code	Title	Hours
BIOLOGY 121	Biology I	5
BIOLOGY 115	Human Biology	4
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
CHEM 207	Organic Chemistry II	6
CIS 144	Java Object Oriented Programming I	3
CIS 242	C++ Object Oriented Programming II	3
CIS 244	Java Object Oriented Programming II	3
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
ENGR 250	Engineering Projects	1-2
MATH 146	Discrete Mathematics	4
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3

PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

English Education, Associate in Arts



College(s): DA, HW, KK, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

The English Education pathway begins your preparation to teach English to high school students. English teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with an English endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in English education.

This is an **example course sequence** for students interested in pursuing English Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Literature course [1,2]		3
EDUC 101	Introduction To Education [3]	3
Fine Arts course [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Literature course [1,2]		3
POL SCI 201	The National Government [1]	3
EDUC 102	Using Technology in The Class [3]	3
Pathway Elective (p.) [3]		3
	Hours	**15**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Life Sciences course [1]		3-4
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
Select one of the following:		3
Literature course [2,3]		
Creative Writing course [3]		
Elective [3]		
EDUC 203	Educational Psychology [3]	3
	Hours	**15-16**
Semester 4		
Select one of the following:		3
PSYCH 201	General Psychology [1]	
Social and Behavioral Sciences course [1]		
Physical Sciences course [1]		3-4
Select one of the following:		3
EDUC 103	Students With Disabilities in School [3]	

Elective [3]		
Select one of the following:		3
Literature course [2,3]		
Creative Writing course [3]		
Elective [3]		
ANTHRO 202	Cultural Anthropology [1]	3
	Hours	**15-16**
	Total Hours	**61-63**

1 General Education Requirement
2 One Literature course should be LIT 130 Children's Literature.
3 Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

English, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

If you love to curl up with a good book, then a pathway in English might be for you. But there's a lot more to studying English than just reading novels, short stories, plays, and poetry by English-speaking writers. You might choose to focus on the literature of a certain time period, location, or author. Or, you might write on material from film, journalism, and TV. Students in English work as educators, writers, advertising managers, public relations specialists and just about any career that needs people who write well.

This is an **example course sequence** for students interested in pursuing English. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
Any General Education Mathematics course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
World Language course [2]		4
	Hours	**14**
Semester 2		
ENGLISH 102	Composition [1]	3
Physical Sciences course [1]		3
Any Literature course [1]		3
Social and Behavioral Sciences course [1]		3
World Languages course [2]		4
	Hours	**16**
Semester 3		
Life Sciences course [1]		4
Social and Behavioral Sciences course [1]		3
Any Literature course that fulfills the Human Diversity requirement [2]		3
World Languages course [2]		4
	Hours	**14**
Semester 4		
Social and Behavioral Sciences course (HD) [1]		3
Pathway Elective (p. 523) [2]		3
Any Literature course [1]		3
Fine Arts course [1]		3
World Languages course [2]		4
	Hours	**16**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective (p. 523)

Pathway Electives

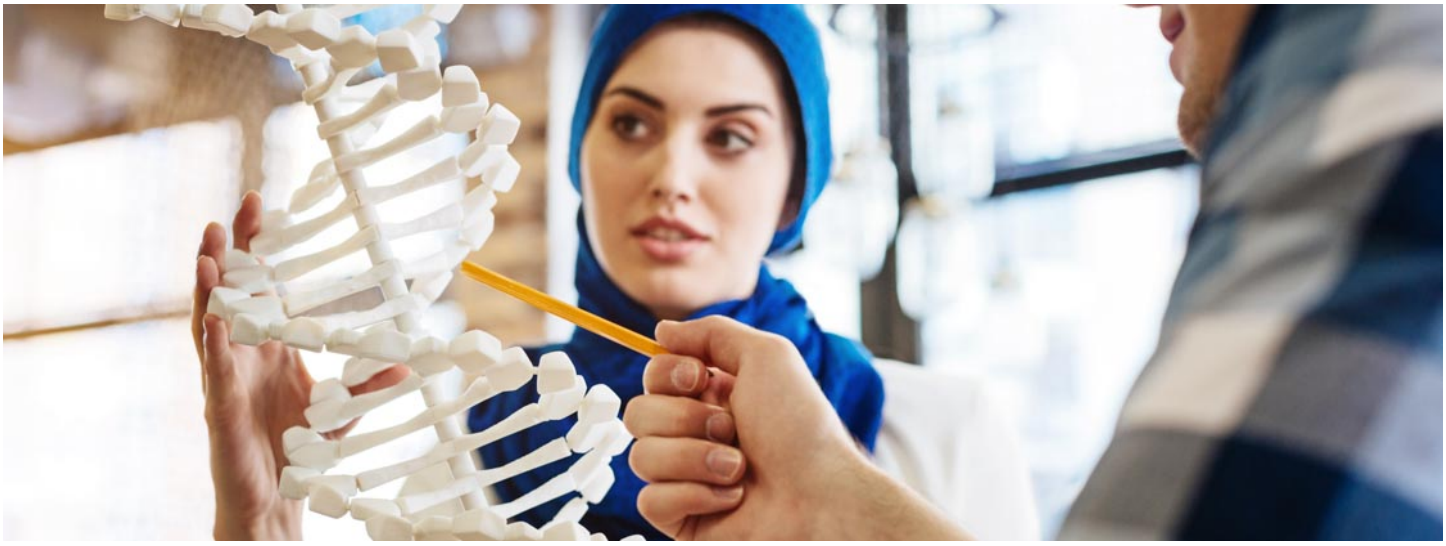
Code	Title	Hours
LIS 101	Information Literacy	3
LIS 105	Information Literacy Basics	1
LIT 110	Introduction To Literature	3
LIT 111	Poetry	3
LIT 112	Drama	3
LIT 113	Fiction	3
LIT 114	Ideas In Prose	3
LIT 115	Great Books Seminar/Topics Literature	3
LIT 116	American Literature from Colonial Days to Civil War	3
LIT 117	American Literature from the Civil War to the 20th Century	3
LIT 118	English Literature from its Beginnings to the Age of Johnson	3
LIT 119	English Literature from the Romantic Revival to the 20th Century	3
LIT 120	Contemporary British & American Literature	3
LIT 121	Contemporary African American Literature (HD)	3
LIT 122	Perspectives in Black Literature (HD)	3
LIT 123	Literature of the U.S. from the Civil War to the Present	3
LIT 124	Experimental Literature	3
LIT 125	Psychology in Black Literature (HD)	3
LIT 126	Contemporary American Literature	3
LIT 127	Contemporary British Literature	3
LIT 128	Latin American Literature (HD)	3
LIT 129	U.S. Latino (a) Literature (HD)	3
LIT 130	Children's Literature	3
LIT 131	Survey Of Afro-American Poetry (HD)	3
LIT 132	Native American Literature (HD)	3
LIT 133	African American Fiction (HD)	3
LIT 137	The Black Woman In Black Fiction (HD)	3
LIT 150	Women's Literature (HD)	3
LIT 153	Gay and Lesbian Literature (HD)	3
LIT 155	Literature and Film	3
LIT 156	Creative Non-fiction	3
LIT 157	Graphic Novels	3
LIT 211	Shakespeare	3
LIT 220	World Literature	3
LIT 223	Intro To Literary Genres	3
LIT 299	Science Fiction: Psychology & Prophecy	3
ENGLISH 105	Business Writing	3
ENGLISH 107	Report Writing	1-3
ENGLISH 150	College Newspaper	1
ENGLISH 151	News Reporting And Writing	3
ENGLISH 152	Intro To Mass Communication	3
ENGLISH 201	Advanced Composition	3
ENGLISH 241	Creative Writing	3
ENGLISH 243	Creative Writing, Fiction	3
ENGLISH 245	Creative Writing, Poetry	3
ENGLISH 299	Special Topics In English	1-3
Advanced Writing course		
World Languages courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Environmental Biology, Associate in Science



College(s): DA, HW, KK, MX, OH, TR, WR*

Program Code: 0211

Sample Transfer Pathway

Ever been told you can't see the forest from the trees? When environmental biologists get to work, they not only look at the trees–they look at the animals, the rocks, the soil, and the air. The environmental biology pathway studies the web of living and nonliving things in an environment to understand how the whole system works. Studying environmental biology, you can later transfer to a four-year university as a junior, obtain your bachelor's degree and work in fields like environmental engineering, forestry, wildlife preservation or national park administration.

This is an **example course sequence** for students interested in earning a degree in Environmental Biology. This pathway does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 140	College Algebra [1]	4
BIOLOGY 119	Environmental Biology [1]	4
Select one of the following:		3
AFRO AM 101	Introduction to African-American Studies (HD) [1]	
ANTHRO 202	Cultural Anthropology (HD) [1]	
HISTORY 215	History of Latin America (HD) [1]	
HISTORY 247	African History to Colonial Period (HD) [1]	
LIT 121	Contemporary African American Literature (HD) [1]	
LIT 150	Women's Literature (HD) [1]	
	Hours	**14**
Semester 2		
BIOLOGY 121	Biology I [1]	5
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
Social and Behavioral Sciences course [1]		3
	Hours	**14**
Semester 3		
BIOLOGY 122	Biology II [2]	5
CHEM 201	General Chemistry I [1]	5
Fine Arts course [1]		3
MATH 125	Introductory Statistics [1]	4
	Hours	**17**
Semester 4		
CHEM 203	General Chemistry II [2]	5
Humanities or Social and Behavioral Sciences course [1]		3
Pathway Elective (p. 525) [2]		4
Pathway Elective (p. 525) [2]		3
	Hours	**15**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective (p. 525)

Pathway ElectiveS

Code	Title	Hours
BIOLOGY 122	Biology II	5
BIOLOGY 236	Environmental Biology II	4
BIOLOGY 299	Special Topics In Biology (Environmental Biology Internship)	3
BIOLOGY 299	Special Topics In Biology (Environmental Biology Research)	3
CHEM 121	Basic Chemistry I	4
CHEM 203	General Chemistry II	5
Select one of the following:		6-8
MATH 140 & MATH 141	College Algebra and Plane Trigonometry	
MATH 143	Pre Calculus [2]	
MCROBIO 236	Applied & Environmental Microbiology	4

[1] CHEM 121 Basic Chemistry I should only be taken if the student needs it for admittance into CHEM 201 General Chemistry I.

[2] MATH 143 Pre Calculus should only be taken if the student needs it for admittance into MATH 207 Calculus & Analytic Geometry I.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Environmental Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
Pathway Elective (p. 526) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 526)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 131	Engineering Graphics & Intro to Design	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3

French Education, Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

The French Education pathway begins your preparation to teach French to K-12 students. French teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a French endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in French education.

This is an **example course sequence** for students interested in pursuing French Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level program of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Fine Arts course [1]		3
EDUC 101	Introduction To Education [2]	3
French course [2]		4
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
EDUC 203	Educational Psychology [2]	3
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
French course [2]		4
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Fine Arts & Humanities course [1]		
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
POL SCI 201	The National Government [1]	3
French course [2]		4
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
	Hours	**14**
Semester 4		
Physical Sciences course [1]		3
French course [2]		4
FRENCH 213 or FRENCH 214	Intro To Modern Literature French [1] or Readings In Literature French	3
Select one of the following:		3
HISTORY 142	Hist World Civiliz Frm 1500 [1]	

History course [1]

Hours	**13**
Total Hours	**60**

1 General Education Requirement
2 Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Gender, Women's and Sexuality Studies: STEM, Health Equity, and Embodied Social Justice, Associate in Science

College(s): DA, HW*, KK*, MX, OH*, TR*, WR*

Program Code: 0210

Sample Transfer Pathway

Gender, Women's, and Sexuality Studies (GWSS) is a fascinating field that explores how people understand and express their identities. It looks at topics like gender, feminism, sexuality, and social justice, which have been part of human societies for a very long time. When you study GWSS, you'll learn about different ways people see themselves and others, and how these views have changed over time and across cultures. You'll explore the history of movements for equality and understand how people have worked to make society fairer for everyone.

One of the great things about GWSS is that it goes beyond the boundaries of other disciplines. You might study how gender and sexuality innovates with things like the environment, technology, healthcare, or even video games. This wide range of topics means that what you learn in GWSS can be useful in lots of different jobs. You could use your knowledge to become a lawyer or policymaker fighting for equal rights, a doctor who understands diverse patient needs, a teacher helping students find innovative solutions to the problems of the world around us, a gender doula supporting client's empowerment, or even a leader in a company making sure everyone is treated fairly.

GWSS is all about understanding people better and working towards a world where everyone is respected and valued. You'll learn how to think critically about social issues and come up with creative solutions to problems. If you're interested in learning about different identities and want to help create positive change in the world, GWSS could be a great choice for you. It teaches important skills like empathy, critical thinking, and communication that can be useful in almost any career you choose.

This particular GWSS pathway offers a special concentration that focuses on STEM subjects, health equity, and embodied social justice. This means you'll learn about how gender feminism, sexuality, and social justice issues connect to science, technology, engineering, and math fields. You'll also study ways to make healthcare fairer for everyone and explore how social justice relates to our physical experiences and well-being. This unique focus can prepare you for careers that combine social awareness with scientific and health-related fields.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies [1,2,3]	3
GWSS 103	Introduction to Social Justice [1,2,3]	3
BIOLOGY 115 or BIOLOGY 114	Human Biology [1] or General Education Biology	4
ENGLISH 101	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication	3
	Hours	**16**
Semester 2		
GWSS 204	Pleasure Activism, Body Politics, and Translating Sexualities [1,2,3]	3
GWSS 220	Queer Theory [1,2,3]	3
BIOLOGY 119	Environmental Biology [1]	4
ENGLISH 102	Composition [1]	3

MATH 144	Finite Mathematics [1]	4
	Hours	**17**
Semester 3		
GWSS 203	Feminist and Queer Artivisms for Social Change [1,2,3]	3
GWSS 210	Ecofeminism [1,2,3]	3
GWSS 222	Queer Feminist Ethno-STEM Theory [1,2,3]	3
MATH 146	Discrete Mathematics [1]	4
PHY SCI 107	Current Public Issues in Physical Science [1,3]	3
	Hours	**16**
Semester 4		
HUM 144	Gender and Feminisms in the Arts [1,3]	3
Please select a Social/Behavioral Science Gen Ed from the electives list [1,3]		3
Pathway Elective (p.) [3]		3
Pathway Elective or other elective (p.) [3]		3
	Hours	**12**
	Total Hours	**61**

1 General Education Course
2 GWSS Pathway Core Course
3 Pathway Elective (p.)

PATHWAY ELECTIVES

Code	Title	Hours
ANTHRO 202	Cultural Anthropology	3
BIOLOGY 113	The Biology Of Women	3
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 202	Issues In Criminal Justice	3
CRM JUS 250	Introduction To Criminology	3
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS 102	Introduction to Gender and Sexuality Diversity	3
GWSS 103	Introduction to Social Justice	3
GWSS 201	Abolitionist Feminism	3
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	3
GWSS 203	Feminist and Queer Artivisms for Social Change	3
GWSS 204	Pleasure Activism, Body Politics, and Translating Sexualities	3
GWSS 210	Ecofeminism	3
GWSS 220	Queer Theory	3
GWSS 222	Queer Feminist Ethno-STEM Theory	3
HISTORY 114	The Afro-American In American History	3
HISTORY 118	Women In American History	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 144	Gender and Feminisms in the Arts	3
HUM 145	Intro to Diversity/Ethnic Studies	3
HUM 146	Gay, Lesbian, Bisexual & Transgender	3
HUM 208	Women In Creative-Performing Arts	3
HUM 210	Comparative Mythology	3
HUM 212	Non-Western Humanities	3
LIT 137	The Black Woman In Black Fiction	3
LIT 150	Women's Literature	3
LIT 153	Gay and Lesbian Literature	3
MATH 124	Critical Mathematics	4
PHIL 110	Social/Political Philosophy	3
PHY SCI 107	Current Public Issues in Physical Science	3
POL SCI 201	The National Government	3
PSYCH 203	The Psychology of Women	3
SOC 203	Sociology of Families and Intimate Relationships	3
SOC 207	The Sociology Of Sex & Gender	3
SOC 211	Race & Ethnic Relations	3
SOC 241	Institutional Racism	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Gender, Women's, and Sexuality Studies: Social Justice and Policy, Associate in Arts

College(s): DA, HW*, KK*, MX, OH*, TR*, WR*

Program Code: 0210

Sample Transfer Pathway

Gender, Women's, and Sexuality Studies (GWSS) is a fascinating field that explores how people understand and express their identities. It looks at topics like gender, feminism, sexuality, and social justice, which have been part of human societies for a very long time. When you study GWSS, you'll learn about different ways people see themselves and others, and how these views have changed over time and across cultures. You'll explore the history of movements for equality and understand how people have worked to make society fairer for everyone.

One of the great things about GWSS is that it goes beyond the boundaries of other disciplines. You might study how gender and sexuality innovates with things like the environment, technology, healthcare, or even video games. This wide range of topics means that what you learn in GWSS can be useful in lots of different jobs. You could use your knowledge to become a lawyer or policymaker fighting for equal rights, a doctor who understands diverse patient needs, a teacher helping students find innovative solutions to the problems of the world around us, a gender doula supporting client's empowerment, or even a leader in a company making sure everyone is treated fairly.

GWSS is all about understanding people better and working towards a world where everyone is respected and valued. You'll learn how to think critically about social issues and come up with creative solutions to problems. If you're interested in learning about different identities and want to help create positive change in the world, GWSS could be a great choice for you. It teaches important skills like empathy, critical thinking, and communication that can be useful in almost any career you choose.

Focused on social justice and policy, this pathway goes beyond understanding change – it prepares you to actively create change. You'll develop skills in policy analysis, advocacy, and community organizing that can help address systemic inequalities. This pathway equips you with the tools to not just understand social challenges, but to develop concrete strategies for creating more just and equitable systems at local, national, and global levels.

This is an **example course sequence** for students interested in pursuing Gender, Women's, and Sexuality Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies [1,2,3]	3
GWSS 103	Introduction to Social Justice [1,2,3]	3
CRM JUS 102	Administration of Criminal Justice [3]	3
ENGLISH 101	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**15**
Semester 2		
GWSS 201	Abolitionist Feminism [1,2,3]	3
BIOLOGY 119	Environmental Biology [1]	4
ENGLISH 102	Composition [1]	3
HUM 212	Non-Western Humanities [1,3]	3
SOC 207	The Sociology Of Sex & Gender [1,3]	3
	Hours	**16**
Semester 3		
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research [1,2,3]	3
GWSS 203	Feminist and Queer Artivisms for Social Change [1,2,3]	3
MATH 125 or MATH 124	Introductory Statistics [1] or Critical Mathematics	4
PHY SCI 107	Current Public Issues in Physical Science [1,3]	3
POL SCI 201	The National Government [1,3]	3
	Hours	**16**

Semester 4		
HUM 144	Gender and Feminisms in the Arts [1,3]	3
Pathway Elective (p.) [3]		3
Pathway Elective (p.) [3]		3
Pathway Elective or other elective (p.) [3]		3
Pathway Elective or other elective (p.) [3]		3
	Hours	**15**
	Total Hours	**62**

1 General Education Course
2 GWSS Pathway Core Course
3 Pathway Elective (p.)

PATHWAY ELECTIVES

Code	Title	Hours
ANTHRO 202	Cultural Anthropology	3
BIOLOGY 113	The Biology Of Women	3
CRM JUS 102	Administration of Criminal Justice	3
CRM JUS 202	Issues In Criminal Justice	3
CRM JUS 250	Introduction To Criminology	3
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS 102	Introduction to Gender and Sexuality Diversity	3
GWSS 103	Introduction to Social Justice	3
GWSS 201	Abolitionist Feminism	3
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	3
GWSS 203	Feminist and Queer Artivisms for Social Change	3
GWSS 204	Pleasure Activism, Body Politics, and Translating Sexualities	3
GWSS 210	Ecofeminism	3
GWSS 220	Queer Theory	3
GWSS 222	Queer Feminist Ethno-STEM Theory	3
HISTORY 114	The Afro-American In American History	3
HISTORY 118	Women In American History	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 144	Gender and Feminisms in the Arts	3
HUM 145	Intro to Diversity/Ethnic Studies	3
HUM 146	Gay, Lesbian, Bisexual & Transgender	3
HUM 208	Women In Creative-Performing Arts	3
HUM 210	Comparative Mythology	3
HUM 212	Non-Western Humanities	3
LIT 137	The Black Woman In Black Fiction	3
LIT 150	Women's Literature	3
LIT 153	Gay and Lesbian Literature	3
MATH 124	Critical Mathematics	4
PHIL 110	Social/Political Philosophy	3
PHY SCI 107	Current Public Issues in Physical Science	3
POL SCI 201	The National Government	3
PSYCH 203	The Psychology of Women	3
SOC 203	Sociology of Families and Intimate Relationships	3
SOC 207	The Sociology Of Sex & Gender	3
SOC 211	Race & Ethnic Relations	3
SOC 241	Institutional Racism	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

General Science Education, Associate in Science

College(s): DA, HW, KK*, MX*, TR, WR*

Program Code: 0211

Sample Transfer Pathway

The General Science Education pathway begins your preparation to teach science to middle school students. Science teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Science endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in science education.

This is an **example course sequence** for students interested in pursuing Science Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 121	Math For Elementary Teachers I [1]	4
BIOLOGY 121	Biology I [1]	5
EDUC 101	Introduction To Education [2]	3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 122	Math For Elementary Teachers II [1]	4
BIOLOGY 122	Biology II [1]	5
Select one of the following:		3
ASTROMY 201	Descriptive Astronomy [1]	
Physical Sciences course [1]		
	Hours	**15**
Semester 3		
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
CHEM 201	General Chemistry I [1]	5
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Humanities course (HD) [1]		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Select one of the following:		3
ANTHRO 202	Cultural Anthropology [1]	
Social and Behavioral Sciences course [1]		
	Hours	**17**
Semester 4		
EDUC 203	Educational Psychology [2]	3
Fine Arts course [1]		3
CHEM 203	General Chemistry II [2]	5
POL SCI 201	The National Government [2]	3
	Hours	**14**
	Total Hours	**61**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Geology, Earth, and Environmental Science, Associate in Science

College(s): DA*, HW, KK, MX, OH, TR, WR

Program Code: 0211

Sample Transfer Pathway

As a geosciences student, you won't just study rocks, you'll explore the Earth's history and gain valuable insight into some of today's most pressing concerns, such as global climate change. You'll study the Earth's treasures, such as fossils and gems, as well as its dangers, such as volcanoes and earthquakes. You might find yourself becoming a geoscientist, a meteorologist, a mining engineer, an environmental scientist, or a geological engineer at an oil company.

This is an **example course sequence** for students interested in pursuing Geology, Earth Science, Earth and Environmental Science. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
GEOLOGY 201	Physical Geology [1]	4
MATH 207	Calculus & Analytic Geometry I [1]	5
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
BIOLOGY 121	Biology I [1]	5
MATH 208	Calculus & Analytic Geometry II [1]	5
Social and Behavioral Sciences course [1]		3
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
CHEM 201	General Chemistry I (Or high school chemistry equivalent) [1]	5
Humanities course [1]		3
Physical Sciences Elective [2]		3-5
	Hours	**14-16**
Semester 4		
Fine Arts course [1]		3
PHYSICS 221	Mechanics, Waves, and Heat [2]	5
CHEM 203	General Chemistry II [2]	5
Elective [2]		3
	Hours	**16**
	Total Hours	**61-63**

[1] General Education Requirement
[2] Pathway Elective (p. 534)

Pathway Elective

Code	Title	Hours
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans	3
ASTROMY 201	Descriptive Astronomy	3
BOTANY 201	General Botany I	4
ENVR ST 101	Man & Environment I	3
GEOG 101	World Geography	3

GEOG 201	Physical Geography	3
LIS 101	Information Literacy	3
MATH 209	Calculus & Analytic Geometry III	5
PHY SCI 101	General Course Physical Science	3
PHY SCI 107	Current Public Issues in Physical Science	3
PHY SCI 111	General Course I Physical Science	4

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

History, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing History. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

The history courses required for a history major can vary greatly between colleges, so it is recommended to research the major requirements of the four-year institutions to which you hope to transfer.

As of July 2014, World Language courses are no longer a degree requirement. World Language courses are recommended for students who are transferring to a four-year institution with a World Languages requirement. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
SOC SCI 102	General Course II Social Science [1]	3
HUM 123 or HUM 201	Intro To Arts & Ideas [1] or General Course I Humanities	3
Pathway Elective (p. 537) [2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Physical Sciences course [1]		3-4
HISTORY 111 or HISTORY 141	History of American People To 1865 [1] or History of World Civilization to 1500	3
Pathway Elective (p. 537) [2]		3
Pathway Elective (p. 537) [2]		3
	Hours	**15-16**
Semester 3		
Life Sciences course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
Fine Arts & Humanities course [1]		3
HISTORY 112 or HISTORY 142	History of American People From 1865 [1] or Hist World Civiliz Frm 1500	3
Pathway Elective (p. 537) [2]		3
	Hours	**16**
Semester 4		
Fine Arts course [1]		3
Pathway Elective (HD) (p. 537) [2]		3
Pathway Elective (p. 537) [2]		3
Pathway Elective (p. 537) [2]		3
Pathway Elective (p. 537) [2]		3
	Hours	**15**
	Total Hours	**62-63**

[1] General Education Requirement
[2] Pathway Elective (p. 537)

PATHWAY Electives

Code	Title	Hours
HISTORY 111	History of American People To 1865	3
HISTORY 112	History of American People From 1865	3
HISTORY 141	History of World Civilization to 1500 (HD)	3
HISTORY 142	Hist World Civiliz Frm 1500 (HD)	3
HISTORY 215	History of Latin America (HD)	3
HISTORY 225	Modern Middle East History (HD)	3
HISTORY 243	The Far East in the Modern World (HD)	3
HISTORY 247	African History to Colonial Period (HD)	3
HISTORY 248	African History - Modern Period (HD)	3
AFRO AM 101	Introduction to African-American Studies (HD)	3
ANTHRO 202	Cultural Anthropology (HD)	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
FIN ART 104	The World Of The Cinema	3
FIN ART 105	History of Painting, Sculpture & Architecture	3
FIN ART 107	History of Architecture, Painting & Sculpture I	3
FIN ART 108	Hist Of Arch Paint Sculp II	3
PHIL 105	Logic	3
PHIL 106	Introduction To Philosophy	3
PHIL 107	Ethics	3
POL SCI 201	The National Government	3
POL SCI 203	Comparative Government	3
POL SCI 204	International Relations (HD)	3
HUM 205	World Literature I (HD)	3
GEOG 101	World Geography (HD)	3
World Language courses (check with your Advisor for HD offerings)		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Human Development and Family Studies, Associate in Arts

College(s): DA*, HW*, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

Are you interested in learning about human development, and studying the nature of relationships and the role of families? If so, a pathway in Human Development and Family Studies might be right for you. The AA in Human Development and Family Studies can lead to employment as a Human Services Assistant or Family Specialist in social service agencies, Head Start daycares, community-based organizations and non-profits, among others.

This is an **example course sequence** for students interested in pursuing Human Development and Family Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

For students interested in earning the Gateways Family Specialist Credential, you must take the HDFS Internship course for an additional six (6) credit hours.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
PSYCH 201	General Psychology [1]	3
CHLD DV 101	Human Growth & Development I [2]	4
Physical Sciences Course [1]		3
	Hours	**17**
Semester 2		
CHLD DV 102	Human Growth & Development II [2]	3
ENGLISH 102	Composition [1]	3
Fine Arts course (Art or Music course recommended) [1]		3
HDFS 203	Family Development/Cross Cultural Perspective [2]	3
HDFS 211	Principles of Human Services	3
	Hours	**15**
Semester 3		
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
HDFS 202	Intimate Relationships [2]	3
HDFS 214	Basic Applications in Human Services	3
PSYCH 211	Social Psychology	3
SOC 201	Intro To the Study Of Society (HD) [1]	3
	Hours	**16**
Semester 4		
Fine Arts & Humanities course (HD) [1]		3
PHIL 105	Logic	3
Social and Behavioral Sciences course [1]		3
SPEECH 101	Fundamentals of Speech Communication	3
	Hours	**12**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Human Geography, Associate in Arts

College(s): DA*, HW, KK, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

If you think geography is all about staring at maps and memorizing state capitals, you couldn't be more wrong. As a Human Geography student, you'll study a wide variety of subjects: deserts in the making, the causes of many urban governmental decisions, the paths of tornadoes, and the way international trade agreements affect business in a small town. Human Geographers study how human communities function globally and locally and learn how to read future social and economic trends. Study of Human Geography will allow you to obtain your bachelor's degree at a four-year college. If you are interested in community development, environmental protection, local government, or in working in organizations like the United Nations Children's Fund (UNICEF), the Red Cross, the World Health Organization or even the World Bank, the human geography pathway is a great choice for you.

This is an **example course sequence** for students interested in pursuing Human Geography. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
Fine Arts course [1]		3
GEOG 101	World Geography (HD) [1]	3
World Language course [2]		4
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
GEOG 102	Economic Geography [1]	3
World Language course [2]		4
Pathway Elective (p. 541) [2]		3
	Hours	**16**
Semester 3		
GEOG 201	Physical Geography [1]	3
Fine Arts & Humanities [1]		3
ANTHRO 202	Cultural Anthropology [1]	3
World Language course [2]		4
Pathway Elective (p. 541) [2]		3
	Hours	**16**
Semester 4		
Humanities course [1]		3
Life Sciences course [1]		4
Pathway Elective (p. 541) [2]		3
World Language course or Elective [2]		3-4
	Hours	**13-14**
	Total Hours	**62-63**

[1] General Education Requirement
[2] Pathway Elective (p. 541)

Pathway ElectiveS

Code	Title	Hours
RELIGN 101	Introduction To Religion	3
RELIGN 108	Religion And Psychology	3
CIS 120	Introduction to Computer Applications	3
CIS 145	Database Management	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
LIS 101	Information Literacy	3
PHIL 106	Introduction To Philosophy	3
PHIL 107	Ethics	3
PHY SCI 118	Introduction to Meteorology	4
POL SCI 204	International Relations (HD)	3
POL SCI 205	Public Administration	3
SOC 201	Intro To the Study Of Society (HD)	3
SOC 210	Diverse Cultures/Global Age (HD)	3
World Language courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Industrial Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
Pathway Elective (p. 542) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 542)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

Insurance, Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR*, WR*

Program Code: 0210

Sample Transfer Pathway

This program prepares students to provide insurance and risk management service to people, businesses and other organizations. If you study insurance, you'll learn about helping companies create safe working conditions, as well as other aspects of risk management. Students in this pathway will learn sales, communications, record management, and more.

This is an **example course sequence** for students interested in earning an Associate in Arts (AA) degree. It does not represent a contract, nor does it guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
PHIL 105	Logic [1]	3
BUSINES 221	Insurance [2]	3
Fine Arts course [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
BUSINES 281	Corporate Organizations: Understanding Business Processes [2]	3
Life Sciences course [1]		4
ECON 201	Principles Of Economics I [1]	3
	Hours	**16**
Semester 3		
Social and Behavioral Sciences course (HD) [1]		3
CIS 299	Special Topic Comp Info Sys (Adv. Spreadsheet/PPT) [2]	4
BUSINES 284	Business Communications [2]	3
BUSINES 181	Financial Accounting [2]	4
ECON 202	Principles Of Economics II [1]	3
	Hours	**17**
Semester 4		
BUSINES 182	Managerial Accounting [2]	4
Physical Sciences course [1]		3
BUSINES 237	Selling [2]	3
PHIL 107	Ethics [1]	3
	Hours	**13**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

International Studies, Associate in Arts

College(s): DA*, HW, KK, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

Want to study the delicate dance of diplomacy and look at the way nations interact on military, economic, and cultural levels? If you feel at home in a field with few black-and-white answers, international studies may be for you. International relations is filled with gray areas; you'll learn to think critically with no fixed set of rules to follow. Students on a pathway in international studies are prepared to enter a four-year institution as a junior, earn their bachelor's degree and become diplomats, global human rights workers, foreign politics experts, and many other careers that require an understanding of how nations interact with one another internationally.

This is an **example course sequence** for students interested in pursuing International Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
SOC SCI 102	General Course II Social Science [1]	3
POL SCI 204	International Relations (HD) [1]	3
Pathway Elective (p. 546) [2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Humanities course [1]		3
POL SCI 201	The National Government [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
Pathway Elective (p. 546) [2]		3
	Hours	**15**
Semester 3		
Life Sciences course [1]		4
Fine Arts [1]		3
Pathway Elective (p. 546) [2]		3
Pathway Elective (p. 546) [2]		3
Pathway Elective (p. 546) [2]		3
	Hours	**16**
Semester 4		
Pathway Elective (p. 546) [2]		3
Physical Sciences course [1]		4
Fine Arts & Humanities course [1]		3
Pathway Elective (p. 546) [2]		3
	Hours	**13**
	Total Hours	**60**

1 General Education Requirement
2 Pathway Elective (p. 546)

PATHWAY Electives

Code	Title	Hours
ANTHRO 202	Cultural Anthropology (HD)	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
GEOG 101	World Geography (HD)	3
HISTORY 141	History of World Civilization to 1500 (HD)	3
HISTORY 142	Hist World Civiliz Frm 1500 (HD)	3
HISTORY 215	History of Latin America (HD)	3
HISTORY 225	Modern Middle East History (HD)	3
HISTORY 243	The Far East in the Modern World (HD)	3
HISTORY 247	African History to Colonial Period (HD)	3
HISTORY 248	African History - Modern Period (HD)	3
POL SCI 200	Principles of Political Science	3
POL SCI 203	Comparative Government (HD)	3
POL SCI 206	American Foreign Policy (HD)	3
SOC SCI 101	General Course I Social Science	3
SOC 211	Race & Ethnic Relations (HD)	3
World Languages courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Journalism, Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

Are you someone who can't get enough of the latest headlines? If so, you may want to consider study in journalism. If you are a quick study with a keen curiosity who can gather, absorb, and deliver information in the heat of a looming deadline: that's what journalism is all about. People with degrees in journalism work in broadcast news writing, copy editing and design, magazine writing, media law and ethics, reporting and more.

This is an **example course sequence** for students interested in pursuing Journalism. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118	General Education Math (or higher Mathematics course) [1]	4
Social and Behavioral Sciences course [1]		3
SPEECH 101	Fundamentals of Speech Communication [1]	3
ENGLISH 151	News Reporting And Writing [2]	3
ENGLISH 150	College Newspaper [2]	1
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
Social and Behavioral Sciences course (HD) [1]		3
Humanities course [1]		3
ENGLISH 152	Intro To Mass Communication [2]	3
ENGLISH 150	College Newspaper [2]	1
	Hours	**13**
Semester 3		
Fine Arts & Humanities course [1]		3
World Language course [2]		4
ENGLISH 276	Feature Writing for Newspapers & Magazines [2]	3
Physical Sciences course [1]		4
ENGLISH 150	College Newspaper [2]	1
	Hours	**15**
Semester 4		
Fine Arts course [1]		3
Social and Behavioral Sciences course [1]		3
Life Sciences course [1]		4
World Language course [2]		4
ENGLISH 150	College Newspaper [2]	1
	Hours	**15**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective (p. 548)

Pathway Electives

Code	Title	Hours
ENGLISH 150	College Newspaper (Repeatable course – can be taken up to 4 times)	1
ENGLISH 151	News Reporting And Writing	3
ENGLISH 152	Intro To Mass Communication	3
ENGLISH 276	Feature Writing for Newspapers & Magazines	3
World Language courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Latin American and Latin@ Studies, Associate in Arts

College(s): DA, HW, KK*, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example** course sequence for students interested in pursuing Latin American and Latin@ Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
HUM 143	Intro to Latin American/Latino Studies [1]	3
HISTORY 215	History of Latin America (or other Social and Behavioral Science pathway elective (p. 549)) [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
French or Spanish World Language course		4
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
ANTHRO 202	Cultural Anthropology (with LALS emphasis) [1]	3
Fine Arts and Humanities pathway course [1]		3
Next level French or Spanish World Language course		4
Physical Sciences or Life Sciences course with lab [1]		4
	Hours	**17**
Semester 3		
Fine Arts and Humanities pathway course [1]		3
MATH 118	General Education Math (or higher Mathematics course) [1]	4
Pathway elective (World Languages strongly suggested) (p. 549)		3
Physical Sciences or Life Sciences course without lab [1]		3
SOC 201	Intro To the Study Of Society (with LALS emphasis) [1]	3
	Hours	**16**
Semester 4		
Pathway elective (World Languages strongly suggested) (p. 549)		3
Pathway elective (p. 549)		3
Pathway elective (p. 549)		3
Pathway elective (p. 549)		3
Pathway elective (p. 549)		3
	Hours	**15**
	Total Hours	**64**

[1] General Education course

Pathway Electives

Code	Title	Hours
ANTHRO 202	Cultural Anthropology *	3
FIN ART 104	The World Of The Cinema *	3
FRENCH 101	First Course French	4
FRENCH 102	Second Course French	4
FRENCH 103	Third Course French	4
FRENCH 104	Fourth Course French	4
HISTORY 201	The History of the Mexican People	3
HISTORY 211	Problems In History *	3
HISTORY 215	History of Latin America	3
HISTORY 216	U.S. Latinx History	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 201	General Course I Humanities *	3
HUM 202	General Course II Humanities *	3
HUM 205	World Literature I (*)	3
HUM 208	Women In Creative-Performing Arts *	3
HUM 209	Latinxs in Chicago	3

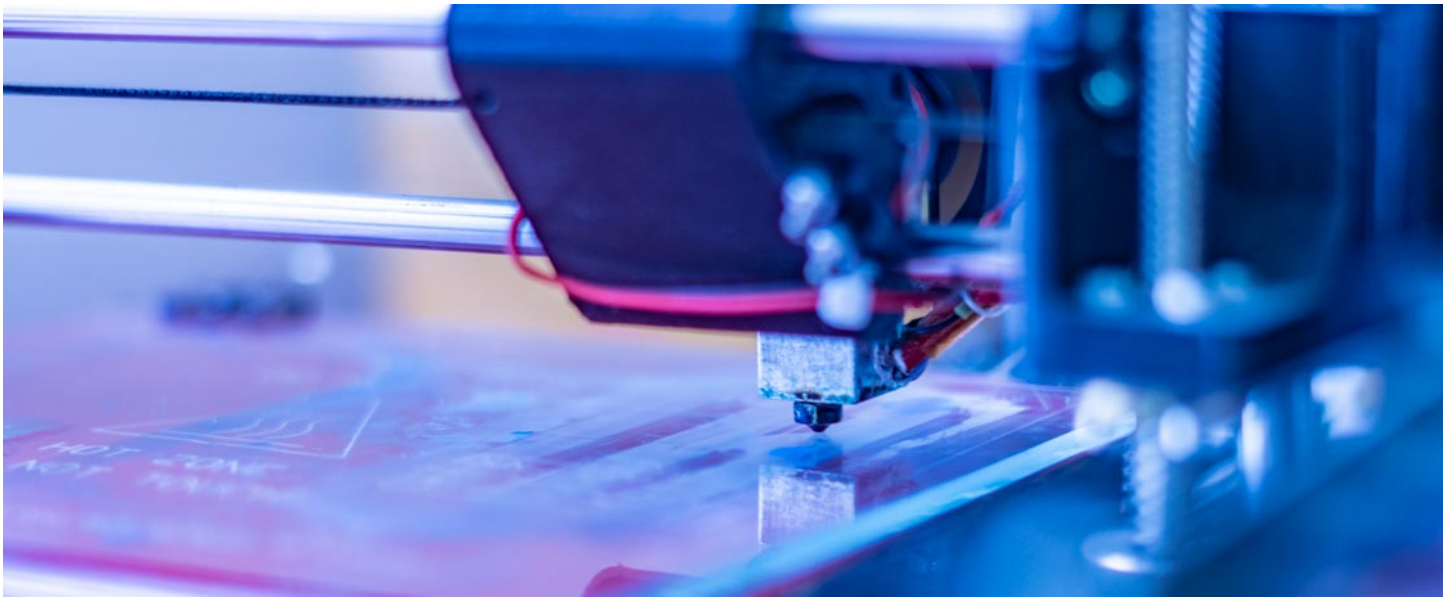
HUM 212	Non-Western Humanities *	3
LIT 128	Latin American Literature	3
LIT 129	U.S. Latino (a) Literature	3
MUSIC 121	Introduction To Music *	3
MUSIC 183	World Music *	3
SPANISH 101	First Course Spanish	4
SPANISH 102	Second Course Spanish	4
SPANISH 103	Third Course Spanish	4
SPANISH 104	Fourth Course Spanish	4
SPANISH 111	Spanish For Hispanos (Heritage Speakers)	3
SPANISH 113	Spanish For Near Native Speakers I (Heritage Speakers)	4
SPANISH 114	Spanish for Near-Native Speakers II (Heritage Speakers)	4
SPANISH 213	Intro To Modern Literature Spanish	3
SPANISH 214	Readings In Literature Spanish	3

* Select a section with Latin American and Latin@ Studies (LALS) emphasis

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Materials Science and Engineering, Associate in Engineering Science



College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
Pathway Elective (p. 551) [3]		3
Pathway Elective (p. 551) [3]		3
Pathway Elective (p. 551) [3]		3
	Hours	**15**
	Total Hours	**65**

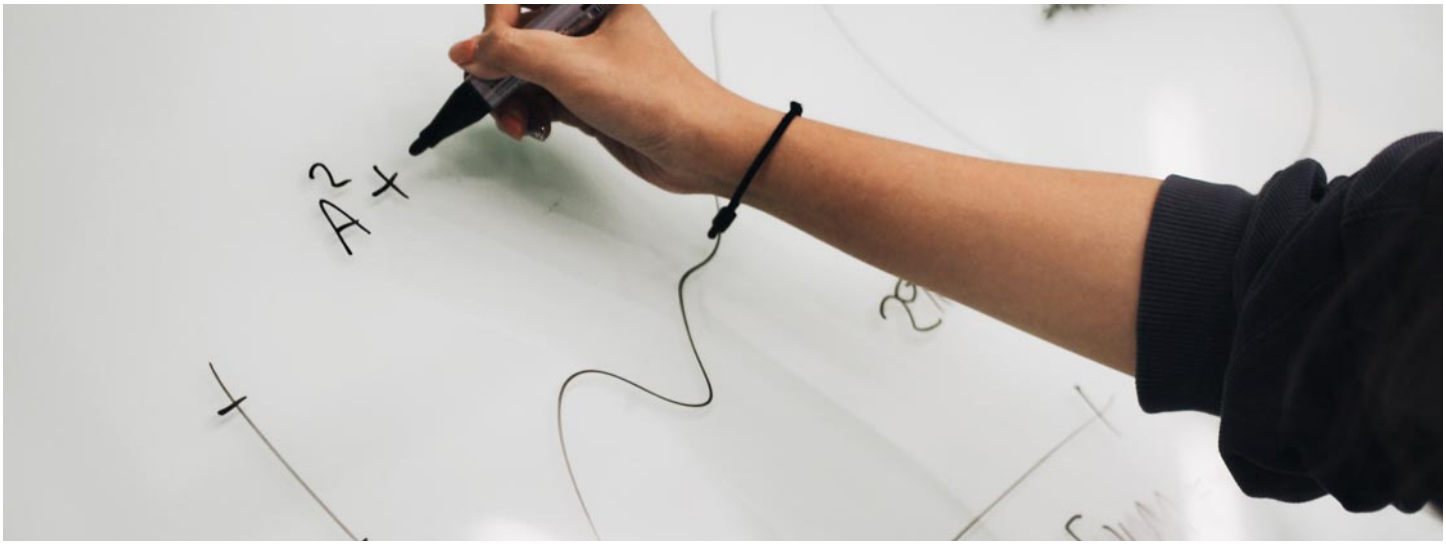
1. General Education course
2. One course must satisfy the Human Diversity (HD) requirement
3. Pathway Elective (p. 551)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
CHEM 205	Organic Chemistry I	6
ENGR 111	Engineering Success Seminar	3
ENGR 225	Introduction to Thermodynamics	3
MATH 212	Linear Algebra	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Mathematics Education, Associate in Science



College(s): DA, HW, KK, MX*, OH*, TR, WR*

Program Code: 0211

Sample Transfer Pathway

The Mathematics Education pathway begins your preparation to teach Math to high school students. Math teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Math endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in math education.

This is an **example course sequence** for students interested in pursuing Mathematics Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions*.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
EDUC 101	Introduction To Education [2]	3
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
MATH 207	Calculus & Analytic Geometry I [1]	5
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
ANTHRO 202	Cultural Anthropology [1]	3
EDUC 102 or EDUC 103	Using Technology in The Class [2] or Students With Disabilities in School	3
MATH 208	Calculus & Analytic Geometry II (Or higher) [1]	5
	Hours	**14**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
EDUC 203	Educational Psychology [2]	3
MATH 209	Calculus & Analytic Geometry III [1]	5
Physical Sciences course [1]		3
	Hours	**17**
Semester 4		
POL SCI 201	The National Government [2]	3
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Humanities course (HD)		
Fine Arts course [1]		3
Physical Sciences or Life Sciences course [1]		3

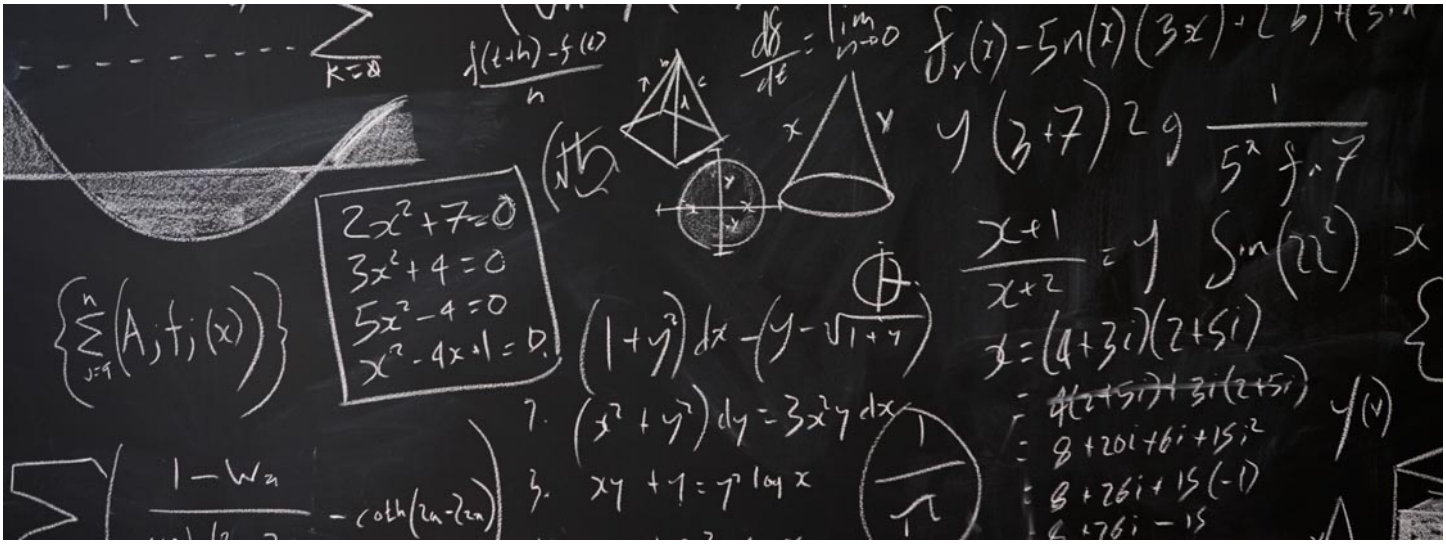
MATH 210	Differential Equations [2]	3
	Hours	**15**
	Total Hours	**61**

1 General Education Requirement
2 Pathway Elective

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

Mathematics, Associate in Science



College(s): DA, HW, KK, MX*, OH, TR, WR

Program Code: 0211

Sample Transfer Pathway

Most of us are comfortable using everyday mathematics, but higher level mathematics, such as calculus, may seem mysterious, a completely unfamiliar language. As a mathematics student, you'll study this language and learn how to use it to describe the world. You'll explore calculus, modern algebra, and other high-level mathematics in the purest light. If you love to solve puzzles, enjoy finding patterns and discovering whether something is true or false, this could be the pathway for you. If it all adds up, you might become a computer scientist, a mathematics instructor, a financial analyst, a mathematician, a statistician and more.

This is an **example course sequence** for students interested in pursuing Mathematics. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
Social and Behavioral Sciences course [1]		3
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**14**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II [1]	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion [1]	5
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 3		
MATH 209	Calculus & Analytic Geometry III [2]	5
Life Sciences course [1]		3
MATH 210	Differential Equations [2]	3
Pathway Elective (p. 555) [2]		3
Humanities [1]		3
	Hours	**17**
Semester 4		
MATH 212	Linear Algebra [2]	3
Fine Arts course [1]		3
Elective [2]		3
CHEM 201	General Chemistry I [1]	5
	Hours	**14**
	Total Hours	**61**

[1] General Education Requirement
[2] Pathway Elective (p. 555)

Pathway ElectiveS

Code	Title	Hours
RELIGN 101	Introduction To Religion	3
RELIGN 108	Religion And Psychology	3
CHEM 121	Basic Chemistry I [1]	4
MATH 209	Calculus & Analytic Geometry III	5
MATH 210	Differential Equations	3
MATH 212	Linear Algebra	3
Select one of the following:		6-7
MATH 140 & MATH 141	College Algebra and Plane Trigonometry	
MATH 143	Pre Calculus [2]	
PHIL 106	Introduction To Philosophy	3
PHIL 107	Ethics	3
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
Additional electives such as Comparative Religion		

[1] CHEM 121 Basic Chemistry I should only be taken if the student needs it for admittance into CHEM 201 General Chemistry I.

[2] MATH 143 Pre Calculus should only be taken if the student needs it for admittance into MATH 207 Calculus & Analytic Geometry I.

CITY COLLEGES OF CHICAGO

Mechanical Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
ENGR 225	Introduction to Thermodynamics [3]	3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 556)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 215	Electrical Circuit Analysis	5
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3

Music (General), Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

An Associate in Arts with a focus in Music is designed for students interested in pursuing basic Music general studies with the possibility of transferring to careers related to Musical Theater, Music Therapy, Music Industry, Musicology, Ethnomusicology, or a combination related to performing arts in general.

This is an **example course sequence** for students interested in pursuing Music. This pathway does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Speak with your college advisor for General Education course suggestions and with a Music faculty at your home college for appropriate guidance on approved electives according to your performing arts educational interests.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition	3
Physical Sciences or Life Sciences course with lab		4
Social and Behavioral Sciences course [1]		3
MUSIC 101 or MUSIC 102	Fundamentals of Music Theory [2] or Music Theory I	3
MUSIC 181 or MUSIC 182	Applied Music-Freshman Level I or Applied Music-Freshman Level II	2
Select one of the following: [2]		2
MUSIC 105	Group Piano I [2]	
MUSIC 114	Guitar Class	
MUSIC 150	Class Voice I	
	Hours	**17**
Semester 2		
SPEECH 101	Fundamentals of Speech Communication	3
MATH 118	General Education Math (or above)	4
MUSIC 102	Music Theory I [2,3]	3
MUSIC 106	Group Piano II [2]	2
MUSIC 111	Aural & Keyboard Skills I [2,3]	2
Pathway Elective (p.) [2]		2
	Hours	**16**
Semester 3		
ENGLISH 102	Composition	3
Physical Sciences or Life Sciences course without lab		3
Social and Behavioral Sciences course [1]		3
Select one of the following: [1]		3
MUSIC 124	Trends In Mod Amer Music	
MUSIC 183	World Music	
MUSIC 221	Music Literature & History	
Pathway Elective (p.) [2]		3
	Hours	**15**
Semester 4		
Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
Select one of the following: [1]		3
MUSIC 124	Trends In Mod Amer Music	
MUSIC 183	World Music	

MUSIC 221	Music Literature & History	
Pathway Elective (p.) [2]		2
Pathway Elective (p.) [2]		2
	Hours	**13**
	Total Hours	**61**

[1] One course must satisfy the Human Diversity (HD) requirement
[2] Pathway Elective (p.). Check with Academic Advisor and/or Music Faculty.
[3] Or other Pathway Elective (p.) if taken before

Pathway Electives

Code	Title	Hours
MUSIC 101	Fundamentals of Music Theory	3
MUSIC 102	Music Theory I	3
MUSIC 103	Music Theory II	3
MUSIC 105	Group Piano I	2
MUSIC 106	Group Piano II	2
MUSIC 107	Jazz Improvisation Pt I	2
MUSIC 108	Jazz Improvisation Pt II	2
MUSIC 109	Jazz/Pop Ensemble	2
MUSIC 110	Jazz/Pop Ensemble: Blues Emphasis	2
MUSIC 111	Aural & Keyboard Skills I	2
MUSIC 112	Aural & Keyboard Skills II	2
MUSIC 113	String Class	2
MUSIC 114	Guitar Class	2
MUSIC 119	Percussion Class	2
MUSIC 120	Introduction to Music Business	3
MUSIC 122	Perspectives In Jazz	3
MUSIC 124	Trends In Mod Amer Music	3
MUSIC 131	Chorus	1-2
MUSIC 134	Orchestra	1
MUSIC 135	Instrumental Ensembles	1
MUSIC 136	Vocal Ensembles	1
MUSIC 150	Class Voice I	2
MUSIC 151	Class Voice II	2
MUSIC 180	Applied Music-Elective Level	2
MUSIC 181	Applied Music-Freshman Level I	2
MUSIC 182	Applied Music-Freshman Level II	2
MUSIC 183	World Music	3
MUSIC 200	Black Music Workshop	3
MUSIC 201	Music Theory III	3
MUSIC 202	Music Theory IV	3
MUSIC 204	Commercial Music Workshop I	2
MUSIC 205	Commercial Music Workshop II	2
MUSIC 211	Aural and Keyboard Skills III	2
MUSIC 212	Aural and Keyboard Skill IV	2
MUSIC 225	Individual Project	2
MUSIC 281	Applied Music-Sophomore Level I	2
MUSIC 282	Appl Music-Soph Lvl II	2

Nuclear, Plasma, Radiological Engineering, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
ENGR 225	Introduction to Thermodynamics [3]	3
Pathway Elective (p. 559) [3]		
	Hours	**12**
	Total Hours	**62**

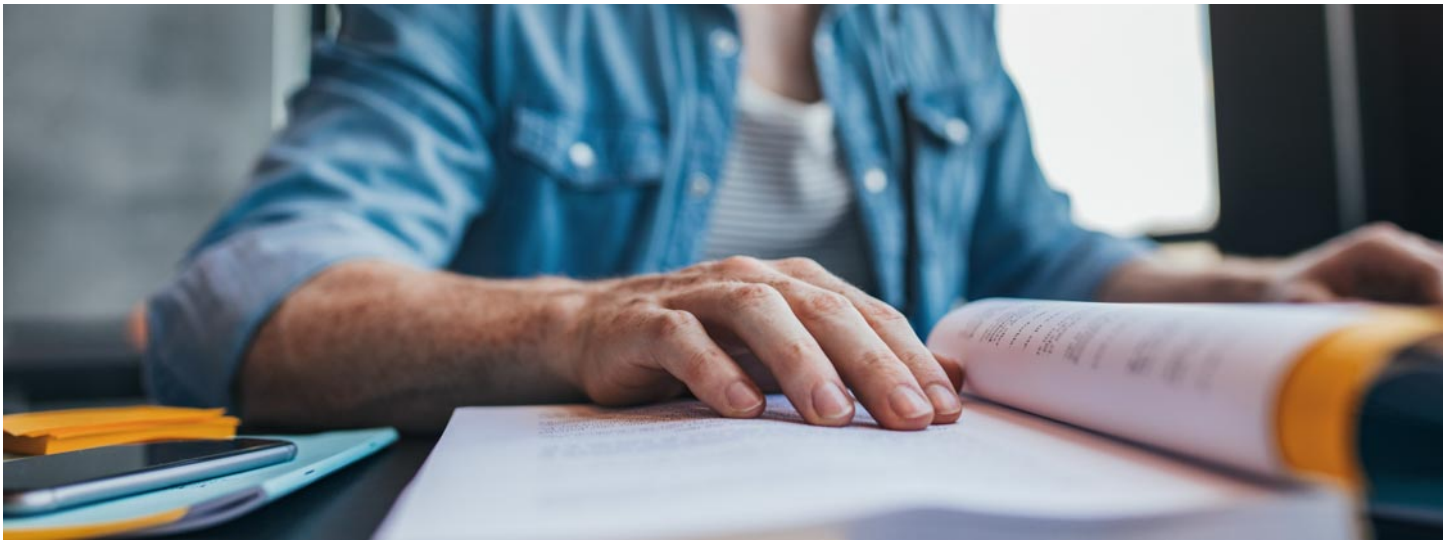
1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 559)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
ENGR 225	Introduction to Thermodynamics	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Philosophy, Associate in Arts



College(s): DA, HW, KK*, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

Philosophy students examine basic questions about topics such as the nature of existence and knowledge, and study the history of human intellectual activities. Philosophy prepares you for all sorts of careers, as you develop greater skills in logic, problem solving, and creative thinking.

This is an **example course sequence** for students interested in pursuing Philosophy. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
World Language course [2]		4
Social and Behavioral Sciences course [1]		3
PHIL 106	Introduction To Philosophy [1]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Physical Sciences & Life Sciences course with lab [1]		4
World Language course [2]		4
Social and Behavioral Sciences course (HD) [1]		3
PHIL 107	Ethics [1]	3
	Hours	**17**
Semester 3		
MATH 118	General Education Math (or higher Mathematics course) [1]	4
Fine Arts or Interdisciplinary Humanities course [1]		3
Social and Behavioral Sciences course [1]		3
PHIL 105	Logic [2]	3
Pathway Elective (p. 560) [2]		3
	Hours	**16**
Semester 4		
Physical Sciences & Life Sciences course with lab [1]		4
Philosophy Elective [2]		3
Pathway Elective (p. 560) [2]		3
Pathway Elective (p. 560) [2]		3
	Hours	**13**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 560)

Pathway ElectiveS

Code	Title	Hours
ANTHRO 202	Cultural Anthropology (HD)	3
HISTORY 141	History of World Civilization to 1500 (HD)	3
HISTORY 142	Hist World Civiliz Frm 1500 (HD)	3
PHIL 108	Philosophy Of Religion	3
PHIL 110	Social/Political Philosophy	3
PHIL 201	Greek Philo To Renaissance	3

PHIL 202	Enlightenment To Present	3
PHIL 215	Problems In Philosophy	3
PHIL 216	Critical Thinking	3
PHIL 225	Philosophy Of Art	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Photography, Associate in Arts

College(s): DA, HW, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Photography. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you earn your associate degree, which will increase your chances of transfer to bachelor's-level programs. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org/) and speak with your college advisor to learn more about IAI.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ART 115	Beginning Darkroom Photography [1]	3
ENGLISH 101	Composition [2]	3
MATH 118	General Education Math (or higher) [2]	4
Social and Behavioral Sciences course (HD) [2]		3
	Hours	**13**

Semester 2		
ART 113	Beginning Digital Photography [1]	3
ART 114	Appreciation Of Photography [1]	3
ENGLISH 102	Composition [2]	3
Life Sciences course [2]		3
	Hours	**12**
Semester 3		
ART 116	Intermediate Black and White Photography [1]	3
ART 117	Beginning Color Photography [1]	3
SPEECH 101	Fundamentals of Speech Communication [1,2]	3
Fine Arts & Humanities course [2,3]		3
	Hours	**12**
Semester 4		
ART 213	Intermediate Digital Photography	3
ART 200-A	Art Projects: Photography [1]	2
Physical Sciences course (with lab) [2]		4
Social and Behavioral Sciences course [2]		3
	Hours	**12**
Semester 5		
ART 270	Photography Portfolio	3
Fine Arts & Humanities course [2,3]		3
Fine Arts & Humanities course [2,3]		3
Social and Behavioral Sciences course [2]		3
	Hours	**12**
	Total Hours	**61**

[1] Pathway course
[2] General Education course
[3] Select from the Humanities courses (p. 562) below

HUM/FINE Course Recommendations

Code	Title	Hours
ART 103	Art Appreciation	3
HUM 105	The New World Of Mass Media	3
HUM 123	Intro To Arts & Ideas	3
FIN ART 104	The World Of The Cinema	3

FIN ART 105	History of Painting, Sculpture & Architecture	3
FIN ART 108	Hist Of Arch Paint Sculp II	3
FIN ART 109	History Of Cinema	3

CITY COLLEGES OF CHICAGO

Physical Education, Associate in Arts

College(s): DA*, HW*, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

The Physical Education pathway begins your preparation to teach physical education to K-12 students. Physical Education teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Physical Education endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in Physical Education.

This is an **example course sequence** for students interested in pursuing Physical Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118	General Education Math [1]	4
Fine Arts course [1]		3
EDUC 101	Introduction To Education [2]	3
HEALTH 250	Health Education [2]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
BIOLOGY 115 or BIOLOGY 116	Human Biology [1] or Introduction to Anatomy And Physiology	4
PSYCH 201	General Psychology [1]	3
Select one of the following:		2
PHYS ED 200	Intro to Physical Education [2]	
Physical Education course [2]		
Physical Education course [2]		2
	Hours	**14**
Semester 3		
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
EDUC 102 or EDUC 103	Using Technology in The Class [2] or Students With Disabilities in School	3
ANTHRO 202	Cultural Anthropology [2]	3
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Humanities course (HD) [1]		
BIOLOGY 107	Nutrition-Consumer Education [2]	3
	Hours	**15**
Semester 4		
SPEECH 101	Fundamentals of Speech Communication [1]	3
POL SCI 201	The National Government [1]	3
EDUC 203	Educational Psychology [2]	3
Select one of the following:		3

PHIL 107	Ethics [1]	
Fine Arts & Humanties course [1]		
Physical Sciences course [1]		3
	Hours	**15**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Physics Education, Associate in Science

College(s): DA*, HW, KK, MX*, OH*, TR, WR*

Program Code: 0211

Sample Transfer Pathway

The Physics Education pathway begins your preparation to teach physics to high school students. Physics teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Physics endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in physics education.

This is an **example course sequence** for students interested in pursuing Physics Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions*.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
EDUC 101	Introduction To Education [2]	3
	Hours	**15**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II [1]	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion [1]	5
ANTHRO 202	Cultural Anthropology [1]	3
	Hours	**16**
Semester 3		
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
PHYSICS 236	Engineering Physics II: Electricity & Magnetism [1]	5
SPEECH 101	Fundamentals of Speech Communication [1]	3
Humanities course (HD) [1]		3
	Hours	**14**
Semester 4		
Fine Arts course [1]		3
MATH 209	Calculus & Analytic Geometry III [1]	5
Select one of the following:		5
CHEM 201	General Chemistry I [2]	
Physics course [2]		
POL SCI 201	The National Government [2]	3
	Hours	**16**
	Total Hours	**61**

[1] General Education Requirement

[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Physics, Associate in Science

College(s): DA, HW, KK, MX*, OH*, TR, WR

Program Code: 0211

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Physics. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [2]	5
Social and Behavioral Sciences course (HD) [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II [1]	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion [1]	5
Fine Arts course [1]		3
	Hours	**16**
Semester 3		
MATH 209	Calculus & Analytic Geometry III [2]	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism [1]	5
SPEECH 101	Fundamentals of Speech Communication [1]	3
Humanities course [1]		3
	Hours	**16**
Semester 4		
Social and Behavioral Sciences course [1]		3
MATH 210	Differential Equations [2]	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics [2]	5
Life Sciences course [1]		3
	Hours	**14**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Political Science, Associate in Arts

College(s): DA, HW, KK, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

Whether they're conservative or liberal, cynical or idealistic, one common characteristic among students interested in political science and government is their addiction to politics. If active engagement in the political system is for you, a political science emphasis is a great way to get started. Those interested in political science and government study the systems people set up to organize their societies, from neighborhoods to nations. If you are interested in a career in government, law, public policy, civic leadership, campaign organizing or even becoming the next president–political science might be just the ticket.

This is an **example course sequence** for students interested in pursuing Political Science. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118	General Education Math (or higher Mathematics course) [1]	4
Fine Arts course [1]		3
SOC SCI 102	General Course II Social Science [1]	3
POL SCI 201	The National Government [1]	3
	Hours	**16**
Semester 2		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Physical Sciences course [1]		4
Humanities course [1]		3
POL SCI 204	International Relations (HD) [1]	3
Pathway Elective (p. 569) [2]		3
	Hours	**16**
Semester 3		
Life Sciences course [1]		4
ENGLISH 102	Composition [1]	3
Pathway Elective (p. 569) [2]		3
Pathway Elective (p. 569) [2]		3
Pathway Elective (p. 569) [2]		3
	Hours	**16**
Semester 4		
Fine Arts & Humanities course [1]		3
Pathway Elective (p. 569) [2]		3
Pathway Elective (p. 569) [2]		3
Pathway Elective (p. 569) [2]		3
	Hours	**12**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective (p. 569)

Pathway ElectiveS

Code	Title	Hours
ANTHRO 202	Cultural Anthropology (HD)	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
GEOG 101	World Geography (HD)	3
POL SCI 200	Principles of Political Science	3
POL SCI 202	Urban Government & Politics	3

POL SCI 203	Comparative Government (HD)	3
POL SCI 205	Public Administration	3
POL SCI 206	American Foreign Policy (HD)	3
POL SCI 207	U.S. State & Local Government	3
POL SCI 211	Analysis Of White Racism (HD)	3
SOC SCI 101	General Course I Social Science	3
SOC 201	Intro To the Study Of Society (HD)	3
World Languages courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Pre-Aviation, Associate in Science

College(s): DA, HW, KK, MX*, OH*, TR, WR

Program Code: 0211

Sample Transfer Pathway

The sky's the limit with our pre-aviation pathway. Whether you're following your dream of flying a plane or helicopter, working in aviation technology or air traffic control, the pre-aviation pathway gets you off the runway. With your associate degree, you can transfer to a four-year college, earn your bachelor's degree and start a career in the airline industry, military, helicopter news reporting, or aerospace technology.

This is an **example course sequence** for students interested in pursuing Aviation. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Please visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
AFRO AM 101	Introduction to African-American Studies (HD) [1]	3
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1,2]	5
PHY SCI 118	Introduction to Meteorology [1]	4
	Hours	**15**
Semester 2		
ECON 201	Principles Of Economics I [1]	3
ENGLISH 102	Composition [1]	3
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion [1]	5
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**14**
Semester 3		
ECON 202	Principles Of Economics II [1]	3
MATH 208	Calculus & Analytic Geometry II [1]	5
PHIL 107	Ethics [1]	3
PHYSICS 236	Engineering Physics II: Electricity & Magnetism [3]	5
	Hours	**16**
Semester 4		
BIOLOGY 114	General Education Biology [1]	4
MATH 209	Calculus & Analytic Geometry III [3]	5
PSYCH 201	General Psychology [3]	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics [3]	5
	Hours	**17**
	Total Hours	**62**

1 General Education Requirement
2 ALEKS-based placement **or** prerequisite: MATH 140 College Algebra / MATH 141 Plane Trigonometry **or** MATH 143 Pre Calculus
3 Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Psychology, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

The psychology pathway examines the way humans feel, think, and learn. Today's psychologists study all sorts of fascinating questions, such as: Why is learning a language as an infant easier than as a teenager? What are the roots of violence? What is the best way to help someone with depression, or grief? But psychologists also look on the bright side. They encourage, coach and motivate people to change their lives for the better.

This is an **example course sequence** for students interested in pursuing Psychology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
PSYCH 201	General Psychology [1]	3
Social and Behavioral Sciences course [1]		3
Elective [2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Life Sciences course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
Fine Arts course [1]		3
Select one of the following:		3
PSYCH 213	Abnormal Psychology [2]	
Pathway Elective (p. 573) [2]		
	Hours	**16**
Semester 3		
Physical Sciences course [1]		4
Fine Arts & Humanities course [1]		3
Select one of the following:		3
PSYCH 207	Child Psychology [2]	
Pathway Elective (p. 573) [2]		
World Language course [2]		4
	Hours	**14**
Semester 4		
Social and Behavioral Sciences course (HD) [1]		3
World Language course [2]		4
Humanities course [1]		3
Select one of the following:		3
PSYCH 211	Social Psychology [2]	
Pathway Elective (p. 573) [2]		
Pathway Elective (p. 573) [2]		3
	Hours	**16**
	Total Hours	**62**

[1] General Education Requirement

[2] Pathway Elective (p. 573)

Pathway ElectiveS

Code	Title	Hours
PSYCH 206	Business & Industrial Psychology	3
PSYCH 207	Child Psychology	3
PSYCH 211	Social Psychology (HD)	3
PSYCH 213	Abnormal Psychology	3
PSYCH 215	Psychology Of Personality	3
PSYCH 222	Adult Development And Aging	3
PSYCH 223	Death, Dying & Bereavement	3
PSYCH 224	Life Span Developmental Psychology	3
PSYCH 240	Research and Statistical Methods in the Behavioral Sciences	3
PSYCH 299	Special Topics in Psychology	6
Any Anthropology course		3
Any Criminal Justice course		3
Any Political Science course		3
Any Sociology course		3
World Languages courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Social Science Education, Associate in Arts

College(s): DA, HW, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

The Social Science Education pathway begins your preparation to teach Social Science to high school students. Social Science teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Social Science endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in Social Science education.

This is an **example course sequence** for students interested in pursuing Social Science Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Fine Arts & Humanities course [1]		
EDUC 101	Introduction To Education [2]	3
SOC SCI 102	General Course II Social Science [1]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Select one of the following:		3
HUM 205	World Literature I [1]	
Humanities course [1]		
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
POL SCI 201	The National Government [1]	3
Select one of the following:		3
EDUC 102	Using Technology in The Class [2]	
Social and Behavioral Sciences course [2]		
	Hours	**15**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
EDUC 203	Educational Psychology [2]	3
Social and Behavioral Sciences course [2]		3
Social and Behavioral Sciences course [2]		3
	Hours	**16**

Semester 4		
Select one of the following:		3
EDUC 103	Students With Disabilities in School [2]	
Social and Behavioral Sciences course [2]		
Fine Arts course [1]		3
Physical Sciences course [1]		3
Social and Behavioral Sciences course [2]		3
Social and Behavioral Sciences course [2]		3
	Hours	**15**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 575)

Pathway Elective

Code	Title	Hours
ANTHRO 202	Cultural Anthropology	3
ECON 201	Principles Of Economics I	3
HISTORY 115	Afro-American History Since 1865	3
HISTORY 141	History of World Civilization to 1500	3
HISTORY 215	History of Latin America	3
POL SCI 201	The National Government	3
PSYCH 201	General Psychology	3
PSYCH 211	Social Psychology	3
PSYCH 213	Abnormal Psychology	3
SOC SCI 101	General Course I Social Science	3
SOC SCI 102	General Course II Social Science	3
SOC 201	Intro To the Study Of Society	3
SOC 205	Social Problems	3
SOC 211	Race & Ethnic Relations (HD)	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Social Work, Associate in Arts

College(s): DA*, HW, KK, MX*, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Social Work. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
PSYCH 201	General Psychology [1]	3
	Hours	**14**
Semester 2		
ENGLISH 102	Composition [1]	3
SOC 201	Intro To the Study Of Society [1]	3
PHIL 107	Ethics [1]	3
Physical Sciences course [1]		4
Pathway Elective (p. 576) [2]		3
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Fine Arts course [1]		3
ANTHRO 202	Cultural Anthropology (HD) [1]	3
Pathway Elective (p. 576) [2]		3
Pathway Elective (p. 576) [2]		3
	Hours	**15**
Semester 4		
Fine Arts & Humanities course [1]		3
Pathway Elective (p. 576) [2]		3
Pathway Elective (p. 576) [2]		3
Pathway Elective (p. 576) [2]		3
Elective [2]		3
	Hours	**15**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective (p. 576)

Pathway ElectiveS

Code	Title	Hours
PSYCH 211	Social Psychology (HD)	3
PSYCH 224	Life Span Developmental Psychology	3
Any Psychology course		3
SOC SER 101	Introduction To Social Work	3
Any Sociology course		3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Sociology, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Sociology. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
SOC SCI 101	General Course I Social Science [1]	3
Pathway Elective (p. 577) [2]		3
Fine Arts course [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
BIOLOGY 114	General Education Biology [1]	4
SOC 201	Intro To the Study Of Society (HD) [1]	3
Pathway Elective –Sociology (p. 577) [2]		3
Pathway Elective (p. 577) [2]		3
	Hours	**16**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
HUM 201	General Course I Humanities [1]	3
PSYCH 201	General Psychology [1]	3
Pathway Elective (p. 577) [2]		3
Pathway Elective (p. 577) [2]		3
	Hours	**15**
Semester 4		
PHIL 106	Introduction To Philosophy [1]	3
PHY SCI 101	General Course Physical Science [1]	3
Pathway Elective –Sociology (p. 577) [2]		3
Pathway Elective –History (p. 577) [2]		3
Elective		3
	Hours	**15**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 577)

Pathway Electives

Code	Title	Hours
ANTHRO 202	Cultural Anthropology (HD)	3
CHEM 201	General Chemistry I	5
RELIGN 106	Comparative Religion I/Eastern Religion (HD)	3
HISTORY 215	History of Latin America (HD)	3
MATH 204	Calculus For Business & Social Sciences [1]	4
SOC 202	Sociology Of Urban Life	3
SOC 203	Sociology of Families and Intimate Relationships	3
SOC 205	Social Problems	3
SOC 207	The Sociology Of Sex & Gender (HD)	3
SOC 210	Diverse Cultures/Global Age (HD)	3
SOC 211	Race & Ethnic Relations (HD)	3
SOC 280	Human Relations (HD)	3

[1] Prerequisite: MATH 140 College Algebra

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Spanish Education, Associate in Arts

College(s): DA, HW, KK*, MX*, OH*, TR, WR*

Program Code: 0210

Sample Transfer Pathway

The Spanish Education pathway begins your preparation to teach Spanish to K-12 students. Spanish teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Spanish endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in Spanish education.

This is an **example course sequence** for students interested in pursuing Spanish Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
MATH 118 or MATH 125	General Education Math [1] or Introductory Statistics	4
Fine Arts course [1]		3
EDUC 101	Introduction To Education [2]	3
Spanish course [2]		4
	Hours	**17**
Semester 2		
ENGLISH 102	Composition [1]	3
Select one of the following:		3
PSYCH 201	General Psychology [1]	
Social and Behavioral Sciences course [1]		
Spanish course [2]		4
EDUC 203	Educational Psychology [2]	3
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Fine Arts & Humanities course (HD) [1]		
	Hours	**16**
Semester 3		
BIOLOGY 114 or BIOLOGY 115	General Education Biology [1] or Human Biology	4
POL SCI 201	The National Government [1]	3
Spanish course [2]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**14**

Semester 4		
Select one of the following:		3
HUM 143	Intro to Latin American/Latino Studies [1]	
SPANISH 213	Intro To Modern Literature Spanish [1]	
SPANISH 214	Readings In Literature Spanish [1]	
Physical Sciences course [1]		3
Spanish course [2]		4
Select one of the following:		3
HISTORY 142	Hist World Civiliz Frm 1500 [1]	
HISTORY 215	History of Latin America [1]	
World or Latin History course [1]		
	Hours	**13**
	Total Hours	**60**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Special Education, Associate in Arts

College(s): DA, HW, KK, MX, OH, TR, WR

Program Code: 0210

Sample Transfer Pathway

The Special Education pathway begins your preparation to teach Special Education to K-12 students. Special Education teachers are also required to earn a bachelor's degree from an accredited program and obtain a Professional Educators License with a Special Education endorsement from the Illinois State Board of Education. Get started now by earning your associate degree from City Colleges, transfer to a four-year teacher certification program as a junior, and start a career in Special Education.

This is an **example course sequence** for students interested in pursuing Special Education. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

For information regarding teaching, licensure and certification requirements for the State of Illinois, please visit www.isbe.net (http://www.isbe.net). *It is important to note that students must pass Illinois Certification Testing System (ICTS) Test of Academic Proficiency (TAP) test, or have 22 composite ACT score and minimum score of 6 on the Writing portion, or have a composite score of 1110 (evidence-based reading and writing + mathematics = 1110 or higher) and a minimum score of 26 on writing and language for entrance into four-year College of Education institutions.*

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
Select one of the following:		4
MATH 118	General Education Math [1]	
MATH 125	Introductory Statistics [1]	
MATH 121	Math For Elementary Teachers I [1]	
Fine Arts course [1]		3
EDUC 101	Introduction To Education [2]	3
PSYCH 201	General Psychology [1]	3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
ANTHRO 202 or MATH 121	Cultural Anthropology [2] or Math For Elementary Teachers I	3-4
PSYCH 207	Child Psychology [2]	3
CHLD DV 101	Human Growth & Development I [2]	4
	Hours	**13-14**
Semester 3		
BIOLOGY 115 or BIOLOGY 115	Human Biology [1] or Human Biology	4
Select one of the following:		3
HUM 145	Intro to Diversity/Ethnic Studies (HD) [1]	
Humanities course (HD) [1]		
CHLD DV 102	Human Growth & Development II [2]	3
HISTORY 111 or HISTORY 112	History of American People To 1865 [1] or History of American People From 1865	3
POL SCI 201	The National Government [1]	3
	Hours	**16**
Semester 4		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Select one of the following:		3
PHIL 107	Ethics [1]	
Fine Arts & Humanities course [1]		

Physical Sciences course [1]		3
CHLD DV 205	Development of Exceptional Child [2]	3
EDUC 203	Educational Psychology [2]	3
	Hours	**15**
	Total Hours	**60-61**

[1] General Education Requirement
[2] Pathway Elective

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Systems Engineering and Design, Associate in Engineering Science

College(s): DA, HW, TR, WR

Program Code: 0100

Sample Transfer Pathway

All plans can be modified to fit the needs of part-time students by adding more semesters.

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 207	Calculus & Analytic Geometry I [1]	5
CHEM 201	General Chemistry I [1]	5
Social and Behavioral Sciences course [1,2]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
MATH 208	Calculus & Analytic Geometry II	5
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5
CHEM 203	General Chemistry II [3]	5
	Hours	**18**
Semester 3		
MATH 209	Calculus & Analytic Geometry III	5
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5
ENGR 190 or CIS 142	Computer Programming for Engineers or C++ Object Oriented Programming I	3
PHYSICS 215	Statics [3]	3
	Hours	**16**
Semester 4		
MATH 210	Differential Equations	3
Fine Arts or Humanities course [1,2]		3
PHYSICS 216	Dynamics [3]	3
PHYSICS 217	Mechanics Of Materials [3]	3
Pathway Elective (p. 583) [3]		3
	Hours	**15**
	Total Hours	**65**

1 General Education course
2 One course must satisfy the Human Diversity (HD) requirement
3 Pathway Elective (p. 583)

Pathway Electives

Code	Title	Hours
CHEM 203	General Chemistry II	5
ENGR 111	Engineering Success Seminar	3
PHYSICS 215	Statics	3
PHYSICS 216	Dynamics	3
PHYSICS 217	Mechanics Of Materials	3
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	5
PHYSICS 238	Introduction to Thermal Physics and Waves	3
PHYSICS 239	Introduction to Quantum Physics and Optics	3

CITY COLLEGES OF CHICAGO

Theater Art, Associate in Arts

College(s): DA*, HW, KK*, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

If you've ever acted in a play, you know how much work it takes to put a production together. A theater pathway is your ticket to every corner of the theater world. Whether you specialize in acting or design, you'll learn in class, backstage, and onstage. You'll read, discuss, and write about all kinds of theatrical works. You'll also get your hands dirty applying what you learn in class as you build sets, design costumes, direct, or act in department productions.

This is an **example course sequence** for students interested in pursuing Theater Art. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
Select one of the following:		4
MATH 118	General Education Math [1]	
MATH 125	Introductory Statistics [1]	
Other Mathematics general education course		
Select one of the following:		3
THR ART 131	Intro To Theater [1]	
THR ART 134	Theater Diversity in the U.S. (HD) [1]	
Select one of the following:		3
THR ART 133	Acting I [2]	
Program Elective [2]		
Select one of the following:		3
THR ART 130	Stagecraft [2]	
SPEECH 143	Training The Speaking Voice [2]	
THR ART 242	Improvisational Theater Workshop [2]	
Pathway Elective (p. 585) [2]		
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Life Sciences course or Physical Sciences course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
Select one of the following:		3
THR ART 235	Acting II [2]	
THR ART 137	Stage Lighting [2]	
Pathway Elective (p. 585) [2]		
Fine Arts & Humanities course or Social and Behavioral Sciences course [1]		3
	Hours	**16**
Semester 3		
Life Sciences course or Physical Sciences course [1]		4
Select one of the following:		2-4
THR ART 136	Stage Make-up [2]	
THR ART 132	Theater Production, Direction & Management [2]	
SPEECH 144	Oral Reading & Interpretation [2]	
Pathway Elective (p. 585) [2]		
Pathway Elective (p. 585) [2]		3-4
Fine Arts & Humanities course or Social and Behavioral Sciences course [1]		3
Select one of the following:		3

THR ART 242	Improvisational Theater Workshop [2]	
Pathway Elective (p. 585) [2]		
	Hours	**15-18**
Semester 4		
Social and Behavioral Sciences course [1]		3
Social and Behavioral Sciences course [1]		3
Select one of the following:		3
THR ART 131	Intro To Theater [1]	
THR ART 134	Theater Diversity in the U.S. (HD) [1]	
LIT 112	Drama [1]	
LIT 211	Shakespeare [1]	
Select one of the following:		3
SPEECH 144	Oral Reading & Interpretation [2]	
THR ART 232	Theater Workshop [2]	
Pathway Elective (p. 585) [2]		
Pathway Elective (p. 585) [2]		3-4
	Hours	**15-16**
	Total Hours	**62-66**

[1] General Education Requirement
[2] Pathway Elective (p. 585)

Pathway Elective

Code	Title	Hours
THR ART 130	Stagecraft	3
THR ART 132	Theater Production, Direction & Management	4
THR ART 133	Acting I	3
THR ART 136	Stage Make-up	2
THR ART 137	Stage Lighting	3
THR ART 232	Theater Workshop	3
THR ART 235	Acting II	3
THR ART 242	Improvisational Theater Workshop	3
SPEECH 143	Training The Speaking Voice	3
SPEECH 144	Oral Reading & Interpretation	3
PHYS ED 146	Contemporary Dance I	1-2
PHYS ED 148	Contemporary Dance II	1-2
PHYS ED 150	Ballet	1-2
World Language courses		

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

Urban Science, Associate in Arts

College(s): OH

Program Code: 0211

Sample Transfer Pathway

The Associate of Arts in Urban Science pathway provides students with a broad understanding of the dynamic interactions between urban environments, human behavior, and societal structures. Through interdisciplinary coursework that blends sociology, urban planning, and environmental studies, students will explore the complexities of urban systems and the social factors that shape modern cities. The pathway emphasizes sustainability, equity, and community development, equipping students with the skills to address challenges such as housing, transportation, and public health. This pathway prepares students to transfer to a four-year college and contribute meaningfully to creating resilient and inclusive urban communities.

This is an **example course sequence** for students interested in pursuing Urban Science. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Arts (AA) degree.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
URB AG 110	Introduction to Urban Agriculture	3
ENGLISH 101	Composition [1]	3
Fine Arts [1]		3
MATH 124	Critical Mathematics [1]	4
SOC 201	Intro To the Study Of Society [1]	3
	Hours	**16**
Semester 2		
URB AG 113	Introduction to Urban Science	3
BIOLOGY 119	Environmental Biology [1]	4
CIS 120	Introduction to Computer Applications	3
ENGLISH 102	Composition [1]	3
SPEECH 101	Fundamentals of Speech Communication [1]	3
	Hours	**16**
Semester 3		
URB AG 115	Introduction to Geographic Information Systems for Urban Agriculture	3
ANTHRO 202	Cultural Anthropology [1]	3
Humanities [1]		3
PHIL 107	Ethics [1]	3
PHY SCI 101	General Course Physical Science [1]	3
	Hours	**15**
Semester 4		
URB AG 201	Applications in Urban Science	3
ENVR TC 141	Site Investigation & Sampling	3
Pathway Elective (p. 586) [2]		3
Pathway Elective (p. 586) [2]		3
SOC SCI 102	General Course II Social Science	3
	Hours	**15**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 586)

Pathway ElectiveS

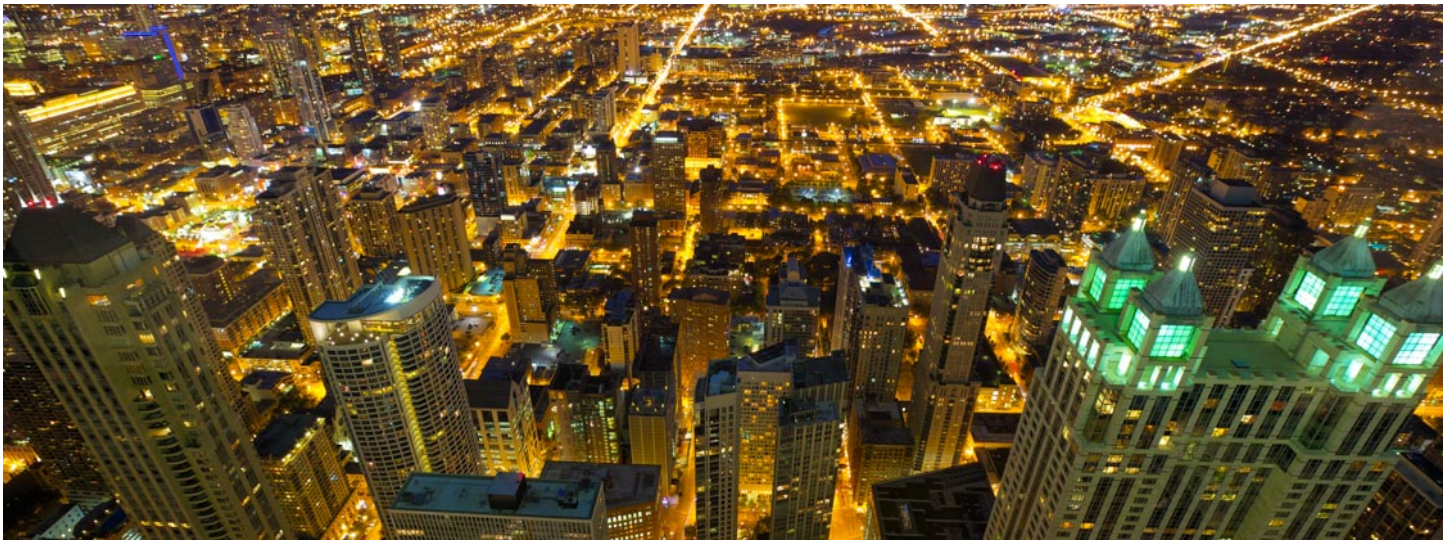
Code	Title	Hours
URB AG 112	Greenhouse Management	3
URB AG 200	Applications in Urban Agriculture Studies	3
CANBS 111	Cannabis and the Law	3
CANBS 114	Restorative Justice in Cannabis	3
GEOG 101	World Geography	3
SOC 205	Social Problems	3

SOC 211	Race & Ethnic Relations	3
PHIL 105	Logic	3
PHY SCI 107	Current Public Issues in Physical Science	3

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

Urban Studies, Associate in Arts



College(s): DA*, HW, KK, MX*, OH, TR*, WR*

Program Code: 0210

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Urban Studies. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

As of July 2014, World Language courses are no longer a degree requirement. In the sequence below, World Language courses are called out as suggested electives. Please talk with your College Advisor to determine the best education plan for you.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
ENGLISH 101	Composition [1]	3
MATH 125	Introductory Statistics [1]	4
SOC 201	Intro To the Study Of Society [1]	3
HISTORY 117	History Of Chicago Metropolitan Area [1]	3
Fine Arts & Humanities course [1]		3
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
SOC 202	Sociology Of Urban Life [2]	3
POL SCI 201	The National Government [1]	3
Fine Arts course [1]		3
World Languages course [2]		4
	Hours	**16**
Semester 3		
ECON 202	Principles Of Economics II [2]	3
GEOG 101	World Geography [2]	3
World Languages course [2]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
GEOLOGY 201	Physical Geology [1]	4
	Hours	**17**
Semester 4		
ARCHITC 105	History Of Architecture II [2]	3
BIOLOGY 119	Environmental Biology [1]	4
Fine Arts & Humanities course [1]		3
POL SCI 207	U.S. State & Local Government [2]	3
	Hours	**13**
	Total Hours	**62**

[1] General Education Requirement
[2] Pathway Elective (p. 587)

Pathway Elective

Code	Title	Hours
ARCHITC 105	History Of Architecture II	3
ECON 202	Principles Of Economics II	3

GEOG 101	World Geography	3
POL SCI 207	U.S. State & Local Government	3
SOC 202	Sociology Of Urban Life	3
World Languages course		4

Choose your courses with your College Advisor.

Web Development, Associate in Science

College(s): DA, HW, KK, MX*, OH*, TR*, WR

Program Code: 0211

Sample Transfer Pathway

This is an **example course sequence** for students interested in pursuing Web Development. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an Associate in Science (AS) degree. One course will satisfy the Human Diversity (HD) requirement. Following this pathway will help you get your associate degree, which will increase your chances of transfer to bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
CIS 101	Computer Science 101 [2]	3
CIS 181	Web Development I/Basic Web Technologies [2]	3
Life Sciences course [1]		3
MATH 146	Discrete Mathematics [1]	4
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Humanities course [1,3]		3
CIS 144	Java Object Oriented Programming I [2]	3
Physical Sciences course [1]		3
CIS 182	Web Development II/Client Side Scripting [2]	3
	Hours	**15**
Semester 3		
SPEECH 101	Fundamentals of Speech Communication [1]	3
Social and Behavioral Sciences course [1,3]		3
Fine Arts course [1,3]		3
CIS 281	Web Development III/Server Side Programming [2]	3
CIS 244	Java Object Oriented Programming II [2]	3
	Hours	**15**
Semester 4		
Physical Sciences or Life Sciences course [1]		4
Social and Behavioral Sciences course [1,3]		3
MATH 125	Introductory Statistics [1]	4
CIS 282	Web Development IV/Web Database Integration [2]	3
	Hours	**14**
	Total Hours	**60**

1 General Education Requirement
2 Pathway Elective
3 One course must satisfy the Human Diversity (HD) requirement

Choose your courses with your College Advisor.

CITY COLLEGES OF CHICAGO

World Languages, Associate in Arts

College(s): DA, HW, KK*, MX*, OH*, TR, WR

Program Code: 0210

Sample Transfer Pathway

If you'd love to change the world, but you don't know what to do—speak its languages! In this interdisciplinary pathway you will have the chance to study everything from Communications to Fine Art, human behavior to geography and anthropology, political science to philosophy—and of course, the languages the world speaks. In our global economy, this pathway is the first step toward a bachelor's degree which will prepare you for a career in international business, banking, government service, interpreting, or travel. World language study is also vital to jobs in healthcare professions like nursing, emergency services, criminal justice and social work.

This is an **example course sequence** for students interested in pursuing World Languages. This does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn an AA degree. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below. Following this pathway will help you get your associate degree, which will increase your chances of transfer to Bachelor's-level programs of study. Choose Illinois Articulation Initiative (IAI) courses to fulfill general education requirements whenever possible. Visit www.itransfer.org (http://www.itransfer.org) and speak with your college advisor to learn more about IAI.

We strongly recommended that you complete the language sequence in consecutive semesters. If you wait a semester or more for the second course, you risk not being able to continue as prepared as possible in your language of interest.

Semester-by-Semester Example Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		**Hours**
ENGLISH 101	Composition [1]	3
Humanities course [1]		3
Fine Arts course [1]		3
Social and Behavioral Sciences course [1]		3
World Language course [2]		4
	Hours	**16**
Semester 2		
ENGLISH 102	Composition [1]	3
Social and Behavioral Sciences course (HD) [1]		3
Life Sciences course [1]		4
SPEECH 101	Fundamentals of Speech Communication [1]	3
World Language course [2]		4
	Hours	**17**
Semester 3		
World Language course [2]		4
MATH 118	General Education Math (or higher Mathematics course) [1]	4
Fine Arts & Humanities course [1]		3
Culture or History course relevant to language study [2]		3
	Hours	**14**
Semester 4		
World Language course [2]		4
Physical Sciences course [1]		3
Social and Behavioral Sciences course [1]		3
Any 200-level course in the language of study [2]		3
	Hours	**13**
	Total Hours	**60**

[1] General Education requirement

[2] Pathway Elective (p. 591)

Pathway Electives

Choose electives based on the recommendations of your top transfer institution.

City Colleges of Chicago offers courses in the following languages:

- Arabic: DA, OH, TR, WR
- Chinese: HW, MX
- French: DA, HW, KK, MX, OH, TR, WR
- Italian: DA, HW
- Japanese: HW
- Latin: KK, WR
- Polish: WR
- Spanish: DA, HW, KK, MX, OH, TR, WR

Recommended electives may vary by transfer institution. Choose your courses with your College Advisor.

Institution-specific transfer guides and agreements can be found on CCC's transfer site (https://www.ccc.edu/services/Pages/Transfer-Guides.aspx).

CITY COLLEGES OF CHICAGO

SUBJECT CODES

CCC Course Subject Codes

The table below lists every subject currently found in the Credit Course Descriptions section of this Academic Catalog, along with their corresponding prefix code and ICCB numeric code.

SUBJECT	SUBJ PREFIX CODE	ICCB NUMERIC CODE
Africana Studies	AFRO AM	0117
Air Conditioning	AIR CON	0094
Anthropology	ANTHRO	0081
Arabic	ARABIC	0144
Architecture	ARCHITC	0005
Art	ART	0010
Astronomy	ASTROMY	0071
Automotive Technology	AUTOTEC	0105
Aviation	AVIATN	0338
Baking & Pastry	330BKPS	0330
Barbering	BARBER	0164
Biology	BIOLOGY	0023
Biotechnology	BIOTECH	0215
Botany	BOTANY	0025
Business	BUSINES	0030
Business and CommercialTechTC1	330BSCM	0330
CAD Technology	CAD TEC	0049
Cannabis	CANBS	0339
Chemistry	CHEM	0073
Child Development	CHLD DV	0090
Chinese	CHINESE	0141
Communication Design	COM DSGN	0009
Communication Media	CMMEDIA	0004
Community Health Care Worker	CHW	0335
Comparative Religion	RELIGN	0133
Computer Information Systems	CIS	0032
Construction Management	432CMGT	0432
Construction Materials Technic	432CNMT	0432
Cooperative Work Experience	COOP EX	0008
Cosmetology	COSMET	0163
Criminal Justice	CRM JUS	0080
Culinary	330CUL	0330
Cybersecurity	COMPSFI	0162
Dance	DANCE	0097
Dental Hygiene	DENTHYG	0100
Digital Multimedia	DMD	0138
Economics	ECON	0082
Education	EDUC	0083
Electronics	ELECTRN	0033
Emergency Medical Technician	EMT	0120
Engineering	ENGR	0034
English	ENGLISH	0035

Entrepreneurship	ENTRE	0143
Environment Studies	ENVR ST	0026
Environment Technology	ENVR TC	0027
ESL (Integrated)	ESLINTG	0136
ESL Reading	ESLREAD	0137
ESL Speech	ESLSPCH	0195
Exercise Sci and Sports Studies	ESSS	0147
Fine Arts	FIN ART	0042
Fire Sci Mgmt/Fire Serv Op	FIREMGT	0152
Food Service Administration	FOODSRV	0038
Foundational Studies ESL	FS ESL	0840
Foundational Studies Math	FS MATH	0830
Foundational Studies Reading	FS READ	0810
Foundational Studies Writing	FS WRIT	0820
French	FRENCH	0051
Game Design and Development	GAME	0331
Gender, Women's, and Sexuality Studies	GWSS	0101
Geography	GEOG	0084
Geology	GEOLOGY	0075
Health	HEALTH	0001
Health Information Technology	HIT	0145
Health Professions	HEAPRO	0146
Health Science	HLH SCI	0124
Health Technology TC4	334HLTH	0334
History	HISTORY	0085
Horticulture	HORTIC	0096
Hospitality Management	HMGT	0330
Human Dev and Family Studies	HDFS	0168
Humanities	HUM	0041
IBEW	432IBEW	0432
Integrated Communication	INTCOMM	0139
Interdisciplinary Studies	INTDSP	0104
Italian	ITALIAN	0052
Japanese	JAPANES	0054
Latin Courses	LATIN	0142
Library & Information Science	LIS	0039
Library Technology	LIB TEC	0050
Linguistics	LING	0132
Literature	LIT	0036
Logistics/Transportation/Distr	330TRNS	0330
Manufacturing Tech TC1	340MFGT	0340
Massage Therapy	MAS	0149
Mathematics	MATH	0045
Media Communication	MEDIACM	0011
Medical Assisting	MEDASST	0153
Mental Health	MENHLTH	0118
Microbiology	MCROBIO	0024
Mortuary Science	MOR SCI	0128
Music	MUSIC	0060
Networking Technologies	NET TEC	0165
Nursing	NURSING	0063

Occupational Therapy Assistant	OTA	0122
Oceanography	OCEAN	0070
Paralegal	PARALEG	0337
Pharmacy Technology	PHAR TC	0062
Phi Theta Kappa	PTKAPPA	0131
Philosophy	PHIL	0043
Phlebotomy	PHLEB	0113
Physical Education	PHYS ED	0065
Physical Science	PHY SCI	0076
Physical Therapist Assistant	PTA	0151
Physics	PHYSICS	0077
Polish	POLISH	0046
Political Science	POL SCI	0086
Process Technology	340PRTE	0340
Psychiatric Rehabilitation	PS REHB	0134
Psychology	PSYCH	0087
Radiography	RADIOGR	0021
Reading	READING	0037
Respiratory Therapy	RESP TC	0061
Short Term Health	STHLTH	0500
Short Term Trd/Indstrl/Trnsprt	STTRDE	0504
Short Trm Busn/Profession Srvc	STBPS	0502
Social Science	SOC SCI	0088
Social Service	SOC SER	0091
Sociology	SOC	0089
Spanish	SPANISH	0057
Speech	SPEECH	0095
Supply Chain Mgmt & Logistics	SCML	0333
Surgical Technology	SURG TC	0016
Technology 332	332TECH	0332
Theater Art	THR ART	0099
Urban Agriculture	URB AG	0154
Zoology	ZOOLOGY	0029

GENERAL EDUCATION COURSES

Communications

Code	Title	Hours
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
SPEECH 101	Fundamentals of Speech Communication	3

Fine Arts

Code	Title	Hours
AFRO AM 101	Introduction to African-American Studies	3
ART 103	Art Appreciation	3
ART 112	Experiences in African American Art	3
ART 130	African-American Art	3
CMMEDIA 163	Film Rhetoric	3
FIN ART 103	Theater Arts	3
FIN ART 104	The World Of The Cinema	3
FIN ART 105	History of Painting, Sculpture & Architecture	3
FIN ART 107	History of Architecture, Painting & Sculpture I	3
FIN ART 108	Hist Of Arch Paint Sculp II	3
FIN ART 109	History Of Cinema	3
FIN ART 110	Opera And The Humanities	3
FIN ART 111	History of Photography	3
FIN ART 112	Dance Appreciation	3
FIN ART 114	Film History I	3
FIN ART 115	Film History II	3
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	3
GWSS 203	Feminist and Queer Artivisms for Social Change	3
HUM 123	Intro To Arts & Ideas	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 144	Gender and Feminisms in the Arts	3
HUM 145	Intro to Diversity/Ethnic Studies	3
HUM 146	Gay, Lesbian, Bisexual & Transgender	3
HUM 201	General Course I Humanities	3
HUM 202	General Course II Humanities	3
HUM 203	Arts of Contemporary America	3
HUM 208	Women In Creative-Performing Arts	3
HUM 209	Latinxs in Chicago	3
HUM 212	Non-Western Humanities	3
HUM 215	The Art and Philosophy of the African Continent	3
LIT 155	Literature and Film	3
MUSIC 121	Introduction To Music	3
MUSIC 124	Trends In Mod Amer Music	3
MUSIC 183	World Music	3
MUSIC 221	Music Literature & History	3
SPEECH 131	Introduction To The Theater	3
THR ART 131	Intro To Theater	3
THR ART 134	Theater Diversity in the U.S.	3

Humanities

Code	Title	Hours
AFRO AM 101	Introduction to African-American Studies	3
ARABIC 104	Intermediate Arabic II	4
CHINESE 104	Chinese IV	4
FRENCH 104	Fourth Course French	4
FRENCH 206	Intensive Oral Practice French	4
FRENCH 210	Modern Civilization & Culture French	3
FRENCH 213	Intro To Modern Literature French	3
FRENCH 214	Readings In Literature French	3
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	3
GWSS 203	Feminist and Queer Artivisms for Social Change	3
HUM 105	The New World Of Mass Media	3
HUM 107	Pop Cul-Mirror Of Amer Life	3
HUM 123	Intro To Arts & Ideas	3
HUM 141	Afro-American Arts	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 144	Gender and Feminisms in the Arts	3
HUM 145	Intro to Diversity/Ethnic Studies	3
HUM 146	Gay, Lesbian, Bisexual & Transgender	3
HUM 201	General Course I Humanities	3
HUM 202	General Course II Humanities	3
HUM 203	Arts of Contemporary America	3
HUM 205	World Literature I	3
HUM 206	World Literature II Existentialism	3
HUM 207	The Great Books	3
HUM 208	Women In Creative-Performing Arts	3
HUM 209	Latinxs in Chicago	3
HUM 210	Comparative Mythology	3
HUM 212	Non-Western Humanities	3
HUM 215	The Art and Philosophy of the African Continent	3
ITALIAN 104	Fourth Course Italian	4
JAPANES 104	Fourth Course Japanese	4
LIT 110	Introduction To Literature	3
LIT 111	Poetry	3
LIT 112	Drama	3
LIT 113	Fiction	3
LIT 114	Ideas In Prose	3
LIT 115	Great Books Seminar/Topics Literature	3
LIT 116	American Literature from Colonial Days to Civil War	3
LIT 117	American Literature from the Civil War to the 20th Century	3
LIT 118	English Literature from its Beginnings to the Age of Johnson	3
LIT 119	English Literature from the Romantic Revival to the 20th Century	3
LIT 120	Contemporary British & American Literature	3
LIT 121	Contemporary African American Literature	3

LIT 122	Perspectives in Black Literature	3
LIT 123	Literature of the U.S. from the Civil War to the Present	3
LIT 124	Experimental Literature	3
LIT 125	Psychology in Black Literature	3
LIT 126	Contemporary American Literature	3
LIT 127	Contemporary British Literature	3
LIT 128	Latin American Literature	3
LIT 129	U.S. Latino (a) Literature	3
LIT 130	Children's Literature	3
LIT 131	Survey Of Afro-American Poetry	3
LIT 132	Native American Literature	3
LIT 133	African American Fiction	3
LIT 137	The Black Woman In Black Fiction	3
LIT 150	Women's Literature	3
LIT 153	Gay and Lesbian Literature	3
LIT 155	Literature and Film	3
LIT 156	Creative Non-fiction	3
LIT 211	Shakespeare	3
LIT 220	World Literature	3
LIT 223	Intro To Literary Genres	3
LIT 299	Science Fiction: Psychology & Prophecy	3
PHIL 105	Logic	3
PHIL 106	Introduction To Philosophy	3
PHIL 107	Ethics	3
PHIL 108	Philosophy Of Religion	3
PHIL 110	Social/Political Philosophy	3
PHIL 201	Greek Philo To Renaissance	3
PHIL 202	Enlightenment To Present	3
PHIL 215	Problems In Philosophy	3
PHIL 216	Critical Thinking	3
PHIL 225	Philosophy Of Art	3
POLISH 104	Fourth Course Polish	4
RELIGN 101	Introduction To Religion	3
RELIGN 102	The Bible - Hebrew Old Test	3
RELIGN 103	The Bible - New Testament	3
RELIGN 104	Islamic Scriptures: The Qur'an	3
RELIGN 106	Comparative Religion I/Eastern Religion	3
RELIGN 107	Com Rel II Western Religion	3
RELIGN 108	Religion And Psychology	3
SPANISH 104	Fourth Course Spanish	4
SPANISH 111	Spanish For Hispanos	3
SPANISH 113	Spanish For Near Native Speakers I	4
SPANISH 114	Spanish for Near-Native Speakers II	4
SPANISH 206	Intensive Oral Practice Spanish	4
SPANISH 210	Modern Civilization & Culture Spanish	3
SPANISH 213	Intro To Modern Literature Spanish	3
SPANISH 214	Readings In Literature Spanish	3

Fine Arts and Humanities

Code	Title	Hours
AFRO AM 101	Introduction to African-American Studies	3
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	3
GWSS 203	Feminist and Queer Artivisms for Social Change	3
HUM 123	Intro To Arts & Ideas	3
HUM 143	Intro to Latin American/Latino Studies	3
HUM 144	Gender and Feminisms in the Arts	3
HUM 145	Intro to Diversity/Ethnic Studies	3
HUM 146	Gay, Lesbian, Bisexual & Transgender	3
HUM 201	General Course I Humanities	3
HUM 202	General Course II Humanities	3
HUM 203	Arts of Contemporary America	3
HUM 208	Women In Creative-Performing Arts	3
HUM 209	Latinxs in Chicago	3
HUM 212	Non-Western Humanities	3
HUM 215	The Art and Philosophy of the African Continent	3
LIT 155	Literature and Film	3

Life Sciences

Code	Title	Hours
BIOLOGY 107	Nutrition-Consumer Education	3
BIOLOGY 109	Human Genetics & Evolution	3
BIOLOGY 113	The Biology Of Women	3
BIOLOGY 114	General Education Biology	4
BIOLOGY 115	Human Biology	4
BIOLOGY 116	Introduction to Anatomy And Physiology	4
BIOLOGY 119	Environmental Biology	4
BIOLOGY 121	Biology I	5
BIOLOGY 122	Biology II	5
BOTANY 201	General Botany I	4
ENVR ST 101	Man & Environment I	3
ZOOLOGY 211	General Zoology	4

Mathematics

Code	Title	Hours
MATH 118	General Education Math	4
MATH 121	Math For Elementary Teachers I	4
MATH 122	Math For Elementary Teachers II	4
MATH 124	Critical Mathematics	4
MATH 125	Introductory Statistics	4
MATH 127	Geometry/Trigonometry for Middle School Teachers	4
MATH 140	College Algebra	4
MATH 141	Plane Trigonometry	3
MATH 144	Finite Mathematics	4
MATH 146	Discrete Mathematics	4
MATH 204	Calculus For Business & Social Sciences	4-5
MATH 207	Calculus & Analytic Geometry I	5

MATH 208	Calculus & Analytic Geometry II	5
MATH 209	Calculus & Analytic Geometry III	5

Physical Sciences

Code	Title	Hours
ASTROMY 201	Descriptive Astronomy	3
ASTROMY 203	The Solar System	4
CHEM 121	Basic Chemistry I	4
CHEM 201	General Chemistry I	5
ENVR TC 107	Environmental Geology	3
GEOG 201	Physical Geography	3
GEOLOGY 201	Physical Geology	4
OCEAN 101	Intro To Oceanography	3
OCEAN 201	Marine Sciences	3
PHY SCI 101	General Course Physical Science	3
PHY SCI 102	General Course Physical Science	3
PHY SCI 107	Current Public Issues in Physical Science	3
PHY SCI 111	General Course I Physical Science	4
PHY SCI 112	General Course II Physical Science	4
PHY SCI 118	Introduction to Meteorology	4
PHYSICS 115	Physics of Energy and Climate	3
PHYSICS 131	Mechanics And Power	3
PHYSICS 220	Physics Calculations & Practice	2
PHYSICS 221	Mechanics, Waves, and Heat	5
PHYSICS 231	General Physics I: Mechanics & Wave Motion	4
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	5

Social and Behavioral Sciences

Code	Title	Hours
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans	3
ANTHRO 202	Cultural Anthropology	3
ANTHRO 205	Applied Anthropology	3
ANTHRO 206	Introduction to Archaeology	3
ANTHRO 210	North American Archaeology	3
ECON 133	Consumer Economics	3
ECON 201	Principles Of Economics I	3
ECON 202	Principles Of Economics II	3
ECON 204	Money And Banking	3
GEOG 101	World Geography	3
GEOG 102	Economic Geography	3
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies	3
GWSS 102	Introduction to Gender and Sexuality Diversity	3
GWSS 103	Introduction to Social Justice	3
GWSS 201	Abolitionist Feminism	3
GWSS 204	Pleasure Activism, Body Politics, and Translating Sexualities	3
GWSS 205	Transnational Feminisms	3
GWSS 210	Ecofeminism	3
GWSS 220	Queer Theory	3
GWSS 222	Queer Feminist Ethno-STEM Theory	3
HISTORY 111	History of American People To 1865	3
HISTORY 112	History of American People From 1865	3
HISTORY 113	United States Labor History	3
HISTORY 114	The Afro-American In American History	3
HISTORY 115	Afro-American History Since 1865	3
HISTORY 117	History Of Chicago Metropolitan Area	3
HISTORY 118	Women In American History	3
HISTORY 141	History of World Civilization to 1500	3
HISTORY 142	Hist World Civiliz Frm 1500	3
HISTORY 211	Problems In History	3
HISTORY 212	History & Culture Of China	3
HISTORY 213	American Civil Rights Movement	3
HISTORY 215	History of Latin America	3
HISTORY 216	U.S. Latinx History	3
HISTORY 225	Modern Middle East History	3
HISTORY 230	Ancient History	3
HISTORY 232	Modern European History 1500-1830	3
HISTORY 233	Modern European History Since 1830	3
HISTORY 243	The Far East in the Modern World	3
HISTORY 247	African History to Colonial Period	3
HISTORY 248	African History - Modern Period	3
HISTORY 250	Topics in American History	3
POL SCI 200	Principles of Political Science	3
POL SCI 201	The National Government	3
POL SCI 202	Urban Government & Politics	3
POL SCI 203	Comparative Government	3
POL SCI 204	International Relations	3
POL SCI 205	Public Administration	3
POL SCI 206	American Foreign Policy	3
POL SCI 207	U.S. State & Local Government	3
POL SCI 211	Analysis Of White Racism	3
POL SCI 215	Politics Of Community Organization	3
PSYCH 201	General Psychology	3
PSYCH 203	The Psychology of Women	3
PSYCH 205	Applied Psychology	3
PSYCH 206	Business & Industrial Psychology	3
PSYCH 207	Child Psychology	3
PSYCH 208	Psychology of Exceptional Children	3
PSYCH 209	Black Psychology	3
PSYCH 211	Social Psychology	3
PSYCH 214	Adolescent Psychology	3
PSYCH 222	Adult Development And Aging	3
PSYCH 224	Life Span Developmental Psychology	3
SOC 110	Religion And Society	3
SOC 201	Intro To the Study Of Society	3
SOC 202	Sociology Of Urban Life	3
SOC 203	Sociology of Families and Intimate Relationships	3
SOC 205	Social Problems	3
SOC 207	The Sociology Of Sex & Gender	3
SOC 209	The Black Man In The U S	3
SOC 211	Race & Ethnic Relations	3

SOC 241	Institutional Racism	3
SOC 280	Human Relations	3
SOC SCI 101	General Course I Social Science	3
SOC SCI 102	General Course II Social Science	3
SOC SCI 105	American Social Issues	3
SOC SCI 106	North & South American Social Development	3
SOC SCI 221	Black Economics	3

IAI GECC COURSES

City Colleges of Chicago participates in the Illinois Articulation Initiative (IAI) (https://itransfer.org/aboutiai/), a comprehensive statewide effort among more than 100 colleges and universities in Illinois to facilitate the transfer of students.

The table below lists every course currently approved at City Colleges of Chicago that meets the Illinois Articulation Initiative (IAI) General Education Core Curriculum (GECC).

While CCC tries to maintain the below information to the best of its abilities, it is subject to change. To view the most current listing of IAI courses approved at City Colleges, please visit the individual pages for GECC courses (http://itransfer.org/courses/gecc/geccpackage.php) *and* Major courses (http://itransfer.org/courses/descriptors.php) *at* iTransfer.org (http://itransfer.org/).

Course Code	Title	IAI Code	DA	HW	KK	MX	OH	TR	WR
AFRO AM 101	Introduction to African-American Studies	H2 909D	X	X	X	X			
AFRO AM 101	Introduction to African-American Studies	HF 906D					X		X
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans	S1 900N	X		X			X	
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans	S1 902		X		X			X
ANTHRO 202	Cultural Anthropology	S1 901N	X	X	X	X	X	X	X
ANTHRO 205	Applied Anthropology	S1 904D							X
ANTHRO 206	Introduction to Archaeology	S1 903							X
ART 103	Art Appreciation	F2 900	X	X	X	X	X	X	X
ART 130	African-American Art	F2 906D	X			X	X		
ASTROMY 20	Descriptive Astronomy	P1 906	X	X		X		X	X
ASTROMY 203	The Solar System	P1 906L		X					X
BIOLOGY 109	Human Genetics & Evolution	L1 907		X					
BIOLOGY 114	General Education Biology	L1 900L	X		X	X	X	X	X
BIOLOGY 115	Human Biology	L1 904L	X	X	X	X	X	X	X
BIOLOGY 119	Environmental Biology	L1 905L	X				X	X	X
BIOLOGY 121	Biology I	L1 910L	X	X	X	X	X	X	X
BIOLOGY 122	Biology II	L1 910L	X	X	X	X	X	X	X
BOTANY 201	General Botany I	L1 901L					X	X	X
CHEM 121	Basic Chemistry I	P1 902L	X	X	X	X	X	X	X
CHEM 201	General Chemistry I	P1 902L	X	X	X	X	X	X	X
CHINESE 104	Chinese IV	H1 900				X			
CMMEDIA 16	Film Rhetoric	F2 909						X	
ECON 201	Principles of Economics I	S3 901	X	X	X	X	X	X	X
ECON 202	Principles of Economics II	S3 902	X	X	X	X	X	X	X
ENGLISH 101	Composition	C1 900	X	X	X	X	X	X	X
ENGLISH 102	Composition	C1 901R	X	X	X	X	X	X	X
ENVR ST 101	Man & Environment I	L1 905						X	
ENVR TC 107	Environmental Geology	P1 908						X	X
FIN ART 104	The World Of The Cinema	F2 908		X		X		X	X
FIN ART 105	History of Painting, Sculpture & Architecture	F2 900	X	X					
FIN ART 107	History of Architecture, Painting & Sculpture I	F2 901	X	X	X			X	X
FIN ART 108	Hist Of Arch Paint Sculp II	F2 902	X	X	X		X	X	X
FIN ART 109	History of Cinema	F2 909		X					X
FIN ART 110	Opera And The Humanities	F1 910		X					
FIN ART 111	History of Photography	F2 904							X
FIN ART 112	Dance Appreciation	F1 906		X					
FIN ART 114	Film History I	F2 910		X		X	X		X
FIN ART 115	Film History II	F2 911		X		X	X	X	X
FRENCH 104	Fourth Course French	H1 900		X				X	X
FRENCH 213	Intro To Modern Literature French	H3 916		X					X
FRENCH 214	Readings In Literature French	H3 916		X				X	X
GEOG 101	World Geography	S4 900N	X	X	X	X			
GEOG 101	World Geography	S4 906		X	X		X		X
GEOG 102	Economic Geography	S4 903N		X	X				
GEOG 201	Physical Geography	P1 909	X	X	X				X
GEOLOGY 201	Physical Geology	P1 907L	X	X		X	X	X	
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies	S9 902D	X	X		X			
GWSS 102	Introduction to Gender and Sexuality Diversity	S9 902D	X			X			
GWSS 103	Introduction to Social Justice	S9 902D	X			X			
GWSS 201	Abolitionist Feminism	S9 902D				X			
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts and Research	HF 907D				X			
GWSS 203	Feminist and Queer Artivisms for Social Change	HF 907D				X			
GWSS 204	Pleasure Activism, Body Politics, and Translating Sexualities	S9 902D				X			
GWSS 205	Transnational Feminisms	S9 902D				X			
GWSS 210	Ecofeminism	S9 902D				X			
GWSS 220	Queer Theory	S9 902D				X			
GWSS 222	Queer Feminist Ethno-STEM Theory	S9 902D				X			

HISTORY 111	History of American People To 1865	S2 900	X	X	X	X	X	X	X
HISTORY 112	History of American People From 1865	S2 901	X	X	X	X	X	X	X
HISTORY 114	The Afro-American in American History	S2 923D		X		X			
HISTORY 141	History of World Civilization to 1500	S2 912N	X	X	X	X	X	X	X
HISTORY 142	Hist World Civilz Frm 1500	S2 913N	X	X	X	X	X	X	X
HISTORY 215	History of Latin America	S2 920N	X	X	X	X	X	X	X
HISTORY 216	U.S. Latinx History	S2 923D	X	X	X	X	X	X	X
HISTORY 225	Modern Middle East History	S2 920N		X					
HISTORY 243	The Far East in the Modern World	S2 920N		X	X				
HISTORY 247	African History to Colonial Period	S2 920N	X	X		X	X	X	X
HISTORY 248	African History - Modern Period	S2 920N		X	X	X	X	X	
HUM 123	Intro To Arts & Ideas	HF 900	X	X					X
HUM 143	Intro To Latin American/ Latino Studies	HF 906D	X	X		X		X	X
HUM 144	Introduction to Women's and Gender Studies	HF 907D	X	X		X	X		X
HUM 145	Intro To Diversity/Ethnic Studies	HF 906D		X					X
HUM 146	Gay, Lesbian, Bisexual & Transgender	HF 907D						X	
HUM 201	General Course I Humanities	HF 900	X	X	X	X	X	X	X
HUM 202	General Course II Humanities	HF 901	X	X	X	X	X	X	X
HUM 203	Arts of Contemporary America	HF 900		X					
HUM 205	World Literature I	H3 906	X	X	X		X	X	X
HUM 207	The Great Books	H3 907	X	X	X				
HUM 208	Women In Creative-Performing Arts	HF 907D		X					X
HUM 209	Latinxs in Chicago	HF 906D	X	X		X	X	X	X
HUM 210	Comparative Mythology	H9 901		X	X	X		X	X
HUM 212	Non-Western Humanities	HF 904N		X	X	X		X	X
HUM 215	The Art and Philosophy of the African Continent	HF 904N		X			X		
ITALIAN 104	Fourth Course Italian	H1 900		X					
JAPANES 104	Fourth Course Japanese	H1 900		X					
LIT 110	Introduction To Literature	H3 900	X	X	X	X	X	X	X
LIT 111	Poetry	H3 903	X	X	X	X	X	X	X
LIT 112	Drama	H3 902	X	X	X	X	X	X	X
LIT 113	Fiction	H3 901	X	X	X	X	X	X	X
LIT 114	Ideas In Prose	H3 904	X	X	X	X			
LIT 115	Great Books Seminar/ Topics Literature	H3 907							X
LIT 116	American Literature from Colonial Days to Civil War	H3 914		X	X				X
LIT 117	American Literature from the Civil War to the 20th Century	H3 915	X	X	X			X	X
LIT 118	English Literature from its Beginnings to the Age of Johnson	H3 912		X					X
LIT 119	English Literature from the Romantic Revival to the 20th Century	H3 913		X	X				X
LIT 121	Contemporary African American Literature	H3 910D	X	X	X	X	X	X	X
LIT 122	Perspectives in Black Literature	H3 910D			X	X			
LIT 123	Literature of the U.S. from the Civil War to the Present	H3 915					X		
LIT 126	Contemporary American Literature	H3 914			X				
LIT 126	Contemporary American Literature	H3 915	X	X		X		X	X
LIT 127	Contemporary British Literature	H3 913							X
LIT 128	Latin American Literature	H3 908N	X	X		X		X	X
LIT 129	U.S. Latino (a) Literature	H3 910D	X	X	X				X
LIT 130	Children's Literature	H3 918		X				X	
LIT 132	Native American Literature	H3 910D		X					
LIT 137	The Black Woman In Black Fiction	H3 911D			X				
LIT 150	Women's Literature	H3 911D	X	X	X	X	X	X	X
LIT 153	Gay and Lesbian Literature	H3 911D		X					X
LIT 155	Literature and Film	F2 905		X					
LIT 155	Literature and Film	F2 908							X
LIT 155	Literature and Film	HF 908	X		X	X	X	X	
LIT 156	Creative Non-fiction	H3 904							X
LIT 211	Shakespeare	H3 905	X	X	X			X	X
LIT 220	World Literature	H3 906	X						
MATH 118	General Education Math	M1 904	X	X	X	X	X	X	X
MATH 122	Math For Elementary Teachers II	M1 903	X	X	X	X	X	X	X
MATH 124	Critical Mathematics	M 1904					X		
MATH 125	Introductory Statistics	M1 902	X	X	X	X	X	X	X
MATH 144	Finite Mathematics	M1 906	X	X	X	X		X	X
MATH 146	Discrete Mathematics	M1 905	X	X	X	X	X	X	X
MATH 204	Calculus For Business & Social Sciences	M1 900-B	X	X	X	X	X	X	X
MATH 207	Calculus & Analytic Geometry I	M1 900-1	X	X	X	X	X	X	X
MATH 208	Calculus & Analytic Geometry II	M1 900-2	X	X	X	X	X	X	X

MATH 209	Calculus & Analytic Geometry III	M1 900-3	X	X	X	X	X	X	X
MUSIC 121	Introduction To Music	F1 900	X	X	X	X	X	X	X
MUSIC 124	Trends In Mod Amer Music	F1 904	X	X		X	X	X	X
MUSIC 183	World Music	F1 903N	X	X		X	X	X	X
MUSIC 221	Music Literature & History	F1 900							X
MUSIC 221	Music Literature & History	F1 901		X					
OCEAN 101	Intro To Oceanography	P1 905						X	
OCEAN 201	Marine Sciences	P1 905						X	
PHIL 105	Logic	H4 906	X	X	X	X	X	X	X
PHIL 106	Introduction To Philosophy	H4 900	X	X	X	X	X	X	X
PHIL 107	Ethics	H4 904	X	X	X	X	X	X	X
PHIL 108	Philosophy Of Religion	H4 905	X	X	X	X	X	X	X
PHIL 110	Social/Political Philosophy	H4 907	X	X		X			X
PHIL 201	Greek Philo To Renaisssance	H4 901	X	X					X
PHIL 202	Enlightenment To Present	H4 902	X	X					X
PHIL 215	Problems In Philosophy	H4 900						X	
PHIL 216	Critical Thinking	H4 906	X						
PHY SCI 101	General Course Physical Science	P1 905		X					
PHY SCI 101	General Course Physical Science	P9 900	X		X	X	X	X	X
PHY SCI 102	General Course Physical Science	P9 900						X	X
PHY SCI 107	Current Public Issues in Physical Science	P9 900		X	X	X	X	X	
PHY SCI 111	General Course I Physical Science	P1 905L	X	X					
PHY SCI 111	General Course I Physical Science	P9 900L			X	X	X	X	X
PHY SCI 112	General Course II Physical Science	P9 900L		X	X		X	X	X
PHYSICS 115	Physics of Energy and Climate	P1 901		X		X	X		
PHYSICS 221	Mechanics, Waves, and Heat	P1 900L	X	X	X	X	X	X	X
PHYSICS 231	General Physics I: Mechanics & Wave Motion	P1 900			X				
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	P2 900L	X	X			X	X	X
POL SCI 200	Principles of Political Science	S5 903	X						
POL SCI 201	The National Government	S5 900	X	X	X	X	X	X	X
POL SCI 203	Comparative Government	S5 905	X	X	X				X
POL SCI 204	International Relations	S5 904	X	X	X			X	X
POL SCI 207	U.S. State & Local Government	S5 902	X	X	X				
POLISH 104	Fourth Course Polish	H1 900							X
PSYCH 201	General Psychology	S6 900	X	X	X	X	X	X	X
PSYCH 207	Child Psychology	S6 903	X	X	X	X	X	X	X
PSYCH 211	Social Psychology	S8 900	X	X	X		X	X	X
PSYCH 214	Adolescent Psychology	S6 904			X				X
PSYCH 222	Adult Development And Aging	S6 905			X			X	X
PSYCH 224	Life Span Developmental Psychology	S6 902	X	X		X	X	X	X
RELIGN 101	Introduction To Religion	H5 900			X			X	X
RELIGN 101	Introduction To Religion	H5 904N					X		
RELIGN 102	The Bible - Hebrew Old Test	H5 901			X		X	X	X
RELIGN 103	The Bible - New Testament	H5 901			X		X	X	X
RELIGN 104	Islamic Scriptures: The Qur'an	H5 901					X	X	X
RELIGN 106	Comparative Religion/ Eastern Religion	H5 904N	X		X			X	X
RELIGN 107	Com Rel II Western Religion	H5 904N			X		X	X	
SOC 201	Intro To the Study Of Society	S7 900	X	X	X	X	X	X	X
SOC 203	Marriage And The Family	S7 902	X	X	X	X	X	X	X
SOC 205	Social Problems	S7 901	X		X	X		X	X
SOC 207	The Sociology Of Sex & Gender	S7 904D	X	X		X	X	X	X
SOC 211	Race & Ethnic Relations	S7 903D		X			X	X	X
SOC 241	Institutional Racism	S7 903D			X		X		X
SOC SCI 101	General Course I Social Science	S9 900	X	X	X	X	X	X	X
SOC SCI 102	General Course II Social Science	S9 901	X	X	X	X	X	X	X
SPANISH 104	Fourth Course Spanish	H1 900	X	X	X		X	X	X
SPANISH 111	Spanish For Hispanos	H1 900	X	X		X			
SPANISH 113	Spanish For Near Native Speakers I	H1 900	X						X
SPANISH 210	Modern Civilization & Culture Spanish	H1 900		X	X				X
SPANISH 213	Intro To Modern Literature Spanish	H3 916	X	X					X
SPANISH 214	Readings In Literature Spanish	H3 916	X	X					X
SPEECH 101	Fundamentals of Speech Communication	C2 900	X	X	X	X	X	X	X
THR ART 131	Intro To Theater	F1 907		X	X				X
THR ART 134	Theater Diversity in the U.S.	F1 907	X	X	X			X	
THR ART 134	Theater Diversity in the U.S.	F1 909D		X			X		X

IAI Code Legend:

Beginning with:
C: Communications
F: FineArts
H: Hum
HF: Interdisciplinary Hum and FineArts
L: Life Science
P: Physical Science
S: Social & Behavioral Sciences

Ending with:
D: Courses designed specifically to examine aspects of human diversity within the United States.
L: Courses with a lab component
N: Courses designed specifically to examine aspects of human diversity from a non-U.S./non-European perspective.

IAI MAJOR COURSES

City Colleges of Chicago participates in the Illinois Articulation Initiative (IAI) (https://itransfer.org/aboutiai/), a comprehensive statewide effort among more than 100 colleges and universities in Illinois to facilitate the transfer of students.

The table below lists every course currently approved at City Colleges of Chicago as an Illinois Articulation Initiative (IAI) Majors course.

While CCC tries to maintain the below information to the best of its abilities, it is subject to change. To view the most current listing of IAI courses approved at City Colleges, please visit the individual pages for GECC courses (http://itransfer.org/courses/gecc/geccpackage.php) *and* Major courses (http://itransfer.org/courses/descriptors.php) *at* iTransfer.org (http://itransfer.org/).

Course Code	CCC Course Title	IAI_Code	DA	HW	KK	MX	OH	TR	WR
ART 131	General Drawing	ART 904	X	X		X	X	X	X
ART 132	Advance General Drawing	ART 905	X		X		X	X	X
ART 144	Two Dimensional Design	ART 907	X	X	X		X	X	X
ART 145	Three Dimensional Design	ART 908	X	X			X	X	X
BIOLOGY 121	Biology I	BIO 910	X	X	X	X	X	X	X
BIOLOGY 122	Biology II	BIO 910	X	X	X	X	X	X	X
BUSINES 181	Financial Accounting	BUS 903	X	X	X		X	X	X
BUSINES 182	Managerial Accounting	BUS 904	X	X	X		X	X	X
BUSINES 236	Advertising	MC 912	X	X	X				
CHEM 201	General Chemistry I	CHM 911	X	X	X	X	X	X	X
CHEM 203	General Chemistry II	CHM 912	X	X	X	X	X	X	X
CHEM 205	Organic Chemistry I	CHM 913	X	X	X	X	X	X	X
CHEM 207	Organic Chemistry II	CHM 914	X	X	X	X	X	X	X
CHLD DV 101	Child Development: Human Growth & Development	ECE 912	X	X	X	X	X	X	
CIS 120	Introduction to Computer Applications	BUS 902	X	X	X	X	X	X	X
CIS 142	C++ Object Oriented Programming I	CS 911	X	X	X	X	X	X	X
CIS 144	Java Object Oriented Programming I	CS 911	X	X	X	X	X	X	X
CIS 242	C++ Object Oriented Programming II	CS 912	X	X	X	X		X	X
CIS 244	Java Object Oriented Programming II	CS 912	X	X	X	X	X	X	X
CRM JUS 102	Administration of Criminal Justice	CRJ 901	X	X	X	X	X	X	X
CRM JUS 114	Administration of Juvenile Justice	CRJ 914	X	X	X	X	X	X	X
CRM JUS 155	Introduction To Corrections	CRJ 911	X	X			X		X
CRM JUS 250	Introduction To Criminology	CRJ 912	X	X	X		X		X
DMD 105	2D Animation	MC 924		X					
DMD 131	Beg Multimedia Design & Dev	MC 923		X					
ENGLISH 151	News Reporting And Writing	MC 919		X				X	X
ENGLISH 152	Intro To Mass Communication	MC 911		X	X			X	X
ENGR 190	Computer Programming for Engineers	CS911		X					
ENGR 215	Electrical Circuit Analysis	EGR 931L	X	X				X	X
MATH 125	Introductory Statistics	BUS 901		X	X	X		X	X
MATH 146	Discrete Mathematics	CS 915	X	X	X	X	X	X	X
MATH 207	Calculus & Analytic Geometry I	MTH 901	X	X	X	X	X	X	X
MATH 208	Calculus & Analytic Geometry II	MTH 902	X	X	X	X	X	X	X
MATH 209	Calculus & Analytic Geometry III	MTH 903	X	X	X	X	X	X	X
MATH 210	Differential Equations	MTH 911	X						
MATH 210	Differential Equations	MTH 912		X	X		X	X	X
MATH 212	Linear Algebra	MTH 911	X	X	X			X	X
MATH 216	Statistics For Business Majors	BUS 901	X					X	
MEDIACM 102	Announcing	MC 918			X				
MEDIACM 14!	Intro To Media Communication	MC 911			X				
MEDIACM 203	Media Writing	MC 917			X				
MEDIACM 22	Radio Production I	MC 915			X				
MEDIACM 231	TV Production I	MC 916			X				
PHIL 110	Social/Political Philosophy	PLS913	X	X			X		X
PHYSICS 215	Statics	EGR 942	X	X	X	X	X	X	X
PHYSICS 216	Dynamics	EGR 943	X	X	X	X	X	X	X
PHYSICS 217	Mechanics Of Materials	EGR 945	X	X				X	X
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion	PHY 911	X	X	X				X
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	PHY 912		X	X			X	X
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	PHY 913		X					
PHYSICS 237	Engineering Physics III: Heat light and Modern Physics	PHY 915A							X
PHYSICS 238	Introduction to Thermal Physics and Waves	PHY 915B							X

PHYSICS 239	Introduction to Quantum and Optics	PHY 915C							X
PSYCH 213	Abnormal Psychology	PSY 905	X	X	X	X	X	X	X
SPEECH 144	Oral Reading & Interpretation	TA 916		X					X
THR ART 130	Stagecraft	TA 911		X	X				X
THR ART 133	Acting I	TA 914		X	X	X	X	X	X

IAI Code Legend:

- Agriculture (AG)
- Art (ART)
- Biological Sciences (BIO)
- Business (BUS)
- Chemistry (CHM)
- Computer Science (CS)
- Criminal Justice (CRJ)
- Early Childhood Education (ECE)
- Engineering (EGR)
- English (EGL)
- Mathematics (MTH)
- Media and Communication Arts (MC)
- Physics (PHY)
- Political Science (PLS)
- Theatre Arts (TA)

HUMAN DIVERSITY COURSES

The table below lists every course currently offered at City Colleges of Chicago that would fulfill the Human Diversity (HD) requirement. Please note that not all HD courses satisfy General Education requirements.

Course Code	Title	GE Category
AFRO AM 101	Introduction to African-American Studies	Fine Arts & Humanities
AFRO AM 102	Contemporary Conversations in Africana Studies	**Not a GE course**
ANTHRO 201	Intro to Biological and Cultural Evolutions of Humans	Social & Behavioral Sciences
ANTHRO 202	Cultural Anthropology	Social & Behavioral Sciences
ANTHRO 205	Applied Anthropology	Social & Behavioral Sciences
ANTHRO 206	Introduction to Archaeology	Social & Behavioral Sciences
ARABIC 101	Arabic for Beginners I	**Not a GE course**
ARABIC 102	Arabic for Beginners II	**Not a GE course**
ARABIC 103	Intermediate Arabic I	**Not a GE course**
ARABIC 104	Intermediate Arabic II	Humanities
ARCHITC 104	History Of Architecture I	**Not a GE course**
ARCHITC 105	History Of Architecture II	**Not a GE course**
ART 103	Art Appreciation	Fine Arts
ART 130	African American Art	Fine Arts
BIOLOGY 113	The Biology Of Women	Life Sciences
CHLD DV 262	Child, Family & Community Relations	**Not a GE course**
CHINESE 101	Introduction to Chinese	**Not a GE course**
CHINESE 102	Chinese II	**Not a GE course**
CHINESE 103	Chinese III	**Not a GE course**
CHINESE 104	Chinese IV	Humanities
FIN ART 114	Film History	Fine Arts
FIN ART 115	Film History	Fine Arts
FRENCH 101	First Course French	**Not a GE course**
FRENCH 102	Second Course French	**Not a GE course**
FRENCH 103	Third Course French	**Not a GE course**
FRENCH 104	Fourth Course French	Humanities
FRENCH 210	Modern Civilization & Culture French	Humanities
FRENCH 213	Intro To Modern Literature French	Humanities
GEOG 101	World Geography	Social & Behavioral Sciences
GEOG 102	Economic Geography	Social & Behavioral Sciences
GWSS 101	Introduction to Gender, Women's, and Sexuality Studies	**Not a GE course**
GWSS 102	Introduction to Gender and Sexuality Diversity	Social & Behavioral Sciences
GWSS 103	Introduction to Social Justice	Social & Behavioral Sciences
GWSS 201	Abolitionist Feminism	**Not a GE course**
GWSS 202	Abolitionist Feminism through Liberative Expressive Arts & Research	Fine Arts & Humanities
GWSS 203	Feminist and Queer Artivisms for Social Change	Fine Arts & Humanities
GWSS 204	Pleasure, Activism, Body Politics, and Translating Sexualities	**Not a GE course**
GWSS 210	Ecofeminism	**Not a GE course**
GWSS 220	Queer Theory	**Not a GE course**
GWSS 222	Queer Feminist Ethno-STEM Theory	**Not a GE course**
HISTORY 114	The Afro-American In American History	Social & Behavioral Sciences
HISTORY 115	Afro-American History Since 1865	Social & Behavioral Sciences
HISTORY 118	Women In American History	Social & Behavioral Sciences
HISTORY 141	History of World Civilization to 1500	Social & Behavioral Sciences
HISTORY 142	Hist World Diviliz Frm 1500	Social & Behavioral Sciences
HISTORY 212	History & Culture Of China	Social & Behavioral Sciences
HISTORY 213	American Civil Rights Movement	Social & Behavioral Sciences
HISTORY 215	History of Latin America	Social & Behavioral Sciences
HISTORY 216	History of Latin America in the U.S.	Social & Behavioral Sciences
HISTORY 225	Modern Middle East History	Social & Behavioral Sciences
HISTORY 243	The Far East in the Modern World	Social & Behavioral Sciences
HISTORY 247	African History to Colonial Period	Social & Behavioral Sciences
HISTORY 248	African History - Modern Period	Social & Behavioral Sciences
HIT 101	Foundations of HIT	**Not a GE course**
HIT 213	Supervisory and Legal Aspects	**Not a GE course**
HUM 141	Afro-American Arts	Humanities

HUM 143	Intro to Latin American/ Latino Studies	Fine Arts & Humanities
HUM 144	Introduction to Women's and Gender Studies	Fine Arts & Humanities
HUM 145	Intro to Diversity/Ethnic Studies	Fine Arts & Humanities
HUM 146	Gay, Lesbian, Bisexual & Transgender	Fine Arts & Humanities
HUM 203	Arts of Contemporary America	Fine Arts & Humanities
HUM 205	World Literature I	Humanities
HUM 208	Women in Creative-Performing Arts	Fine Arts & Humanities
HUM 209	Latinxs in Chicago	Fine Arts & Humanities
HUM 210	Comparative Mythology	Humanities
HUM 212	Non-Western Humanities	Fine Arts & Humanities
HUM 215	The Art and Philosophy of the African Continent	Fine Arts & Humanities
ITALIAN 101	First Course Italian	**Not a GE course**
ITALIAN 102	Second Course Italian	**Not a GE course**
ITALIAN 103	Third Course Italian	**Not a GE course**
ITALIAN 104	Fourth Course Italian	Humanities
JAPANES 101	First Course Japanese	**Not a GE course**
JAPANES 102	Second Course Japanese	**Not a GE course**
JAPANES 103	Third Course Japanese	**Not a GE course**
JAPANES 104	Fourth Course Japanese	Humanities
LIT 121	Contemporary African American Literature	Humanities
LIT 122	Perspectives in Black Literature	Humanities
LIT 125	Psychology in Black Literature	Humanities
LIT 128	Latin American Literature	Humanities
LIT 129	U.S. Latino (a) Literature	Humanities
LIT 131	Survey Of Afro-American Poetry	Humanities
LIT 132	Native American Literature	Humanities
LIT 133	African American Fiction	Humanities
LIT 137	The Black Woman in Black Fiction	Humanities
LIT 150	Women's Literature	Humanities
LIT 153	Gay and Lesbian Literature	Humanities
MATH 124	Critical Mathematics	Mathematics
MOR SCI 123	Funeral Directing & Cremation	**Not a GE course**
MUSIC 183	World Music	Fine Arts
MUSIC 200	Black Music Workshop	**Not a GE course**
NURSING 216	Nursing Leadership	**Not a GE course**
POLISH 101	First Course Polish	**Not a GE course**
POLISH 102	Second Course Polish	**Not a GE course**
POLISH 103	Third Course Polish	**Not a GE course**
POLISH 104	Fourth Course Polish	Humanities
POL SCI 204	International Relations	Social & Behavioral Sciences
POL SCI 206	American Foreign Policy	Social & Behavioral Sciences
POL SCI 211	Analysis Of White Racism	Social & Behavioral Sciences
PSYCH 209	Black Psychology	Social & Behavioral Sciences
PSYCH 211	Social Psychology	Social & Behavioral Sciences
PTA 110	Introduction to Physical Therapy	**Not a GE course**
RELIGN 106	Comparative Religion I/ Eastern Religion	Humanities
RELIGN 107	Com Rel II Western Religion	Humanities
SOC 201	Intro To the Study Of Society	Social & Behavioral Sciences
SOC 207	The Sociology Of Sex & Gender	Social & Behavioral Sciences
SOC 208	Transnational Feminisms	**Not a GE course**
SOC 209	The Black Man In The U.S.	Social & Behavioral Sciences
SOC 210	Diverse Cultures/Global Age	**Not a GE course**
SOC 211	Race & Ethnic Relations	Social & Behavioral Sciences
SOC 241	Institutional Racism	Social & Behavioral Sciences
SOC 280	Human Relations	Social & Behavioral Sciences
SOC SCI 110	Introduction to Global Studies	**Not a GE course**
SOC SCI 221	Black Economics	Social & Behavioral Sciences
SOC SER 204	Cross-Culture Studies in Gerontology	**Not a GE course**
SPANISH 101	First Course Spanish	**Not a GE course**
SPANISH 102	Second Course Spanish	**Not a GE course**
SPANISH 103	Third Course Spanish	**Not a GE course**
SPANISH 104	Fourth Course Spanish	Humanities
SPANISH 111	Spanish For Hispanos	Humanities
SPANISH 113	Spanish For Near Native Speakers I	Humanities
SPANISH 114	Spanish For Near-Native Speakers II	Humanities
SPANISH 191	Survival Spanish Nursing	Humanities

SPANISH 193	Spanish for Radiography	**Not a GE course**
SPANISH 206	Intensive Oral Practice Spanish	Humanities
SPANISH 210	Modern Civilization & Culture Spanish	Humanities
SPANISH 213	Intro To Modern Literature Spanish	Humanities
SPANISH 214	Readings In Literature Spanish	Humanities
THR ART 134	Theater Diversity in the U.S.	Fine Arts

COMPLIANCE STATEMENT

Non-Discrimination Policies and Procedures

Equal Opportunity in Programs, Services and Activities

City Colleges of Chicago does not discriminate on the basis of race, color, national origin, ethnicity, gender, age, religion, citizenship, sexual orientation, marital status, disability, veteran status, genetic information, pregnancy, membership or lawful participation in the activities of any organization, or the exercise of rights guaranteed by local, state, or federal law with respect to hire, terms and conditions of employment, continued employment, admissions, or participation in Board programs, services, or activities as required by Title IX of the Educational Amendments of 1972, the Americans with Disabilities Act of 1990 and the Amendments Act, Section 504 of the Rehabilitation Act of 1973, Title VI or Title VII of the Civil Rights Act of 1964, and other applicable statutes and City Colleges of Chicago policies. The EEO Office is responsible for investigating and responding to equal opportunity concerns, including sexual harassment, of CCC employees, applicants for employment, students or applicants for admission or any other person.

Complaints of discrimination or harassment may be made by or against employees, students, or other participants in Board programs, activities, or services. Any person who believes that he or she has suffered from a violation of CCC's equal opportunity policies with respect to discrimination or harassment may file a complaint with the District's EEO Office.

Complaints must be in writing and filed within 180 days of the discriminatory or harassing act. All complaints must be directed to the:

EEO Office
Office of Human Resources and Staff Development
180 N. Wabash Avenue, 2nd Floor
Chicago, Illinois 60601
or at eeofficer@ccc.edu

For information regarding the EEO Policy and procedures, please contact the EEO Office at (312) 553-2865.

The complete text of the District's non-discrimination policy is contained in the Student Policy Manual. Copies of the City Colleges of Chicago Equal Opportunity Complaint Procedures and the Discrimination Complaint Form are available in the District Office, Office of Human Resources at the above address, and in the Personnel Office at each of the seven City Colleges of Chicago locations. CCC's non-discrimination policies, and complaint procedures and form are also available on the CCC website at www.ccc.edu/departments/Pages/Equal-Opportunity-Office-(EEO).aspx (http://www.ccc.edu/departments/Pages/Equal-Opportunity-Office-(EEO).aspx).

Prohibition Against Retaliation and Intimidation

Retaliation against and/or intimidation of employees, students, program participants, witnesses or any other persons who make complaints or who cooperate in EEO investigations is strictly prohibited. Anyone who feels he or she is the victim of retaliation or intimidation should contact the EEO Office to report such incidents immediately.

Smoke-Free Workplace

City Colleges of Chicago is a smoke-free environment.

Prohibition on Unlawful Drug and Alcohol Use

City Colleges of Chicago prohibits the use or distribution of alcoholic beverages in or on college property, or in conjunction with any college activities, except as authorized by state law and specifically approved by the college president or the chancellor. The unlawful manufacture, distribution, dispensation, use or possession of controlled substances (as defined in the Controlled Substances Act, 21 U.S.C. 812, section 202, schedules I through V) in or on college property is strictly prohibited.

The Board of Trustees of the Community College District No. 508, is governed by the Illinois Public Community College Act, (110 ILCX 805/1-1, et seq.) and the Rules for the Management and Government of City Colleges of Chicago, with any amendments enacted or thereafter. A student or employee who is found to be in violation of the above stated prohibitions will be subject to disciplinary action, up to and including expulsion and/or dismissal from employment.

Privacy of Educational Records

City Colleges of Chicago complies with the Family and Educational Records Protection Act with respect to students' right of access to their educational records and the disclosure of educational records to third parties. For more information, please visit www.ccc.edu/menu/Pages/ccc_ferpa_compliance.aspx#legal (http://www.ccc.edu/menu/Pages/ccc_ferpa_compliance.aspx#legal).

Disclaimer

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Key

College Code

Indicates where the course is approved to be offered.

- **DA** - Richard J. Daley College
- **HW** - Harold Washington College
- **KK** - Kennedy-King College
- **MX** - Malcolm X College
- **OH** - Olive-Harvey College
- **TR** - Harry S Truman College
- **WR** - Wilbur Wright College

IAI - Course is approved at one or more colleges for the Illinois Articulation Agreement (IAI).

GE - Course satisfies a General Educaiton (GE) requirement based on the category listed and program requirements.

HD Course - Course satisfies the Human Diversity (HD) requirement for degree programs.

Refer to the semester credit schedules for course availability.

Africana Studies (AFRO AM)

Africana Studies (AFRO AM) 101
Introduction to African-American Studies
A survey of African American Studies from an interdisciplinary perspective. This course utilizes the comparative analysis of approaches, methodologies, and key concepts related to the study of people of African descent in the United States, continental Africa, and throughout the African Diaspora. The course utilizes the expertise of African-American Studies faculty, and embraces the seven core fields of the discipline. Writing assignments as appropriate to the discipline are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H2 909D,HF 906D GE: Fine Arts, Humanities HD Course

Africana Studies (AFRO AM) 102
Contemporary Conversations in Africana Studies
A thematic study of topics in Africana Studies, with special attention to media, popular culture, and the contributions of women. Builds upon and offers a deeper exploration of topics introduced in Africana Studies 101. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of AFRO AM 101 with a grade of C or better -AND- Eligibility for ENGLISH 101.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR
HD Course

Africana Studies (AFRO AM) 190
Black Women in the African Diaspora
This course is a survey of the experiences and contributions made by women of African descent in Africa, the Caribbean and the Americas. This course interrogates the concept of power and the intersections of race, class, culture, and gender. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH
HD Course

Africana Studies (AFRO AM) 210
Black Chicago
This course explores the contributions of Black Chicagoans as early migrants; their subsequent contributions to key historic movements; and their legacies in the areas of business, media, sports, entertainment, the arts, politics, education, academia, and community organizing from the 1780s to the present.
Successful completion of AFRO AM 101 with the grade of "C" or better and eligibility for ENGLISH 101/97
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH
HD Course

Africana Studies (AFRO AM) 214
Hip Hop: Culture and Politics
The political significance, globalization and history of Hip-Hop will be examined. Four of the multitude of musical permutations of American Hip-Hop (Rap, consciousness/social awareness, gangsta rap and commercial hip-hop) and their relative/potential impact will be outlined. The materials/social culture that has come to be associated with Hip-Hop will be the primary focus. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of AFRO AM 101 with a grade of C or better -AND- Eligibility for ENGLISH 101
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH

Air Conditioning (AIR CON)

Air Conditioning (AIR CON) 101
Intro Air Conditioning I
Fundamentals of heat and measurement; intensity, quantity and modes of flow; factors of comfort studied and explored in relation to design of a system in connection with function of that system. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 102
Intro Air Conditioning II
Refrigeration, its theory, systems, components, and control as applied to air conditioning; study of refrigeration equipment, including function, selection, proper installation, maintenance, and service. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 103
Duct Design And Layout
Conventional low velocity duct design; high velocity air distribution design and systems using sophisticated design techniques; layout techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (AIR CON 101 and AIR CON 102) or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 104
Equipment and Systems Controls
Pneumatic, electric, and electronic controls and control systems; selection and design of control systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 105
Owner-Contractor Management
Fundamentals of management techniques for air conditioning dealers, contractors, and entrepreneurs. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 106
Sheet Metal I
Fabrication and installation of ducts used in air conditioning, ventilation and heating systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 107
Welding I
Techniques of welding and cutting different metals under a variety of conditions. Students will learn to weld, butt, edge, lap and fillet joints. Oxy-acetylene, oxy-propane and carbon arc methods are employed. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 120
Introductory Laboratory
Shop and laboratory safety, use of hand tools for air conditioning, refrigeration and heating, use of meters, instruments and gauges. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 121
Advanced Laboratory
Covers meters, instruments, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 150
Intro To Refrigeration
Servicing, installation, reinstallation, warranty, and troubleshooting of home and commercial refrigeration systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 151
Commercial Refrigeration
Selection, maintenance, installation of commercial refrigeration. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AIR CON 150.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 155
Refrigeration Laboratory
Gauges, meters, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 156
Domestic Refrigeration Laboratory
Domestic and hermetic servicing. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 157
Analysis Laboratory
Analysis of domestic and commercial hermetic systems, mechanical and electrical servicing. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 158
Commercial Refrigeration Laboratory
Installation of components and complete systems, service and maintenance of those components and systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 160
Intro to Principles of Heating
Warm air systems, hot water systems, steam systems, gas fuel, oil fuel, and coal fuel at both residential and commercial levels; control systems and their installation, maintenance, service and sub-electrical systems and their service. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 165
Heating Laboratory
General study of domestic and commercial systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 204
Advanced Control Systems
Theory, maintenance and repair of advanced electrical, mechanical and electronic controls and control systems. Design techniques of control systems explored. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AIR CON 104.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Anthropology (ANTHRO)

Anthropology (ANTHRO) 201
Intro to Biological and Cultural Evolutions of Humans
Survey and analysis of the fundamentals of prehistoric archaeology, fossil primates and primate evolution, primate behavior, human genetics, and the variations of human populations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR
IAI: S1 900N,S1 902 GE: Social & Behavioral Sciences HD Course

Anthropology (ANTHRO) 202
Cultural Anthropology
Comparative study of human societies and cultures of the world; cross-cultural investigation of social organization and political, economic, religious, and family systems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S1 901N GE: Social & Behavioral Sciences HD Course

Anthropology (ANTHRO) 205
Applied Anthropology
This course explores the application of anthropological concepts, perspectives, techniques, and information to understanding and dealing with contemporary issues. Discusses the relevance of anthropology to such practical concerns as health care, business, and community development, and illustrates the versatility of its uses in numerous career fields. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101.
3 Lecture hours. 3 Credit Hours.
Offered At: WR
IAI: S1 904D GE: Social & Behavioral Sciences HD Course

Anthropology (ANTHRO) 206
Introduction to Archaeology
Introduces the study of past cultures through their material remains. Explores strategies for locating archaeological remains; techniques of excavation; conservation procedures; and methods for analysis and interpretation of these materials. Examines major prehistoric cultures of the world and their patterns of change and development. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: WR
IAI: S1 903 GE: Social & Behavioral Sciences HD Course

Anthropology (ANTHRO) 210
North American Archaeology
Prehistoric cultural evolution in North America, including the first arrival of people, distribution, beginnings of settled life and formation of political-religious states; prehistory of Eastern and Western United States and Eastern, Central and Southern Mexico until arrival of Europeans. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Social & Behavioral Sciences

Arabic (ARABIC)

Arabic (ARABIC) 101
Arabic for Beginners I
Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, and reading. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, TR, WR
HD Course

Arabic (ARABIC) 102
Arabic for Beginners II
Introduction to Arabic language wit emphasis on language of everyday conversation. focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, reading, and translating. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARABIC 101, ACTFL Arabic Writing Proficiency Test (Score 2.00), Placement Test, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, OH, TR, WR
HD Course

Arabic (ARABIC) 103
Intermediate Arabic I
Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on the alphabet, vocabulary and structure needed for elementary speaking, listening, reading and translating. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARABIC 102, Placement Test or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, OH, TR, WR
HD Course

Arabic (ARABIC) 104
Intermediate Arabic II
Introduction to Arabic language with emphasis on language of everyday conversation. Focus in on alphabet, vocabulary and structure needed for elementary speaking, listening, reading and translating. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARABIC 103, Placement Test or Consent of Department Chairperson
4 Lecture hours. 4 Credit Hours.
Offered At: DA, OH, TR, WR
GE: Humanities HD Course

Architecture (ARCHITC)

Architecture (ARCHITC) 104
History Of Architecture I
The study of world architecture from prehistory through the 16the century. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR, WR
HD Course

Architecture (ARCHITC) 105
History Of Architecture II
The study of world architecture from the 17th century. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR, WR
HD Course

Architecture (ARCHITC) 110
Architectural Sketching
Introduction to the observational sketching of architectural subjects. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 2 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 121
Basic Design Studio
Introduction to visual and organizational design principles for the generation of spatial and formal ideas. Use of graphic techniques and physical modeling for representation. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 122
Intermediate Design Studio
Continuation of ARCHITC 121. Emphasis on the design and articulation of space and its representation. Introduction to spatial concepts of perception and order. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 110 and ARCHITC 121, or consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 123
Advanced Design Studio
Design processes for the modeling and representation of architectural components and forms. Manipulation of digital content across software applications to manifest representations of design. Output methods in either physical form or digital communication medium appropriate to the discipline. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 170, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 166
Architectural Design I
Examination of criteria influencing residential design: program, context, municipal regulations, dimensional standards, and anthropomorphic data. Introduction to typologies, organizational strategies and precedents for architectural problem solving. Application of the skills of visual communication and design methodologies. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96, and grade of C or better or concurrent enrollment in ARCHITC 122, and Grade of C or better or concurrent enrollment in ARCHITC 171, or consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 170
Digital Lab I
Introduction to the methods of generation and representation of spatial and formal ideas. Use of software applications and a range of output methods. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 171
Digital Lab II
Three-Dimensional modeling and rendering of spatial and formal constructs using software applications appropriate to the discipline. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 170 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 172
Digital Lab III
Introduction to the assembly of construction drawings for architectural projects. Use of software applications, as appropriate to the discipline. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 170 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 173
Architecture-CAD with Third Party Applications
Introduction to third party programs used to develop architectural designs and construction documents via Computer-Aided Design (CAD). Add-on programming to the base drafting package AutoCAD. The student will have hands-on experience with automated architectural programs that streamline management of file handling and the basic command structure. Utilization of comprehensive library symbols with smart features. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 171 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 174
Computer Aided Design V for Architectural Drafting
Introduction to third party programs used to develop architectural designs and construction documents via Computer-Aided Design (CAD). Add on program to the base drafting package AutoCAD. The students will have hands on experience with 3-D studio. This course will include three-dimensional modeling with complete rendering. The model will include texture of materials, various lighting schemes with shade and shadow. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 171 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 202
Construction I
Study of the materials and methods of building construction. Emphasis on architecture framed in wood and light-gauge metal. Application of the skills of graphic communication through the generation of construction drawings. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96, and grade of C or better or concurrent enrollment in ARCHITC 172, or consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 204
Construction II
Study of the materials and methods of building construction. Emphasis on architecture having assemblies of masonry, concrete, steel and mass timber. Application of the skills of graphic communication through the generation of construction drawings. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96, and grade of C or better or concurrent enrollment in ARCHITC 172, or consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 220
Portfolio Development
Design and compilation of an architectural portfolio for employment and transfer. Preparation of materials that supplement the portfolio. Overview of interview protocols and processes. Writing assignment, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 123 and ARCHITC 171; and a grade of C or better or concurrent enrollment in ARCHITC 266, or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 230
Structural Fundamentals
An introduction to the concepts and design of structural systems in architectural applications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or concurrent enrollment in ARCHITC 204; Grade of C or better in PHYSICS 221; or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Architecture (ARCHITC) 266
Architectural Design II
Continuation of Architecture 166. Emphasis on mid-size commercial and institutional building types in urban contexts. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 166, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, WR

Art (ART)

Art (ART) 103
Art Appreciation
Appreciation of art works taken from all cultures and periods. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: F2 900 GE: Fine Arts HD Course

Art (ART) 112
Experiences in African American Art
Examination of the works of African American artists utilizing various art forms (crafts, paintings, drawings, sculptures, and digital art) that express the cultural and racial identity of African Americans and their artistic influence on society, with a focus on contemporary artists from the Harlem Renaissance through the present time.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH
GE: Fine Arts

Art (ART) 113
Beginning Digital Photography
This course in digital photography introduces creating, manipulating, and producing images in a technologically based environment. Writing assignments, as appropriate to the discipline, are part of this course.
6 Laboratory hours. 3 Credit Hours.
Offered At: HW, OH, TR, WR

Art (ART) 114
Appreciation Of Photography
Topics from the history and technical development of photography from its invention to the present. Influence of other arts and sciences. May include darkroom work. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Art (ART) 115
Beginning Darkroom Photography
Basic principles of black and white photography. 35 mm cameras, exposure, development and printing processes, composition and presentation. Writing assignments, as appropriate to the discipline, are part of the course
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, OH, TR, WR

Art (ART) 116
Intermediate Black and White Photography
This course in black and white photography introduces advanced techniques in shooting, developing, and printing, including the introduction of formats beyond 35mm. Writing assignments, as appropriate to the discipline, are part of this course.
Grade of C or better in ART 115, or Consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, OH, TR, WR

Art (ART) 117
Beginning Color Photography
Introduction to techniques, art and theory of color photography; printing from color negatives and/or transparencies, developing color negatives and/or transparencies; characteristics of different color film types, lighting for color photography; covers color theory and use of color in composition. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 115, or Consent of Coordinator or Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, TR

Art (ART) 126
Printmaking I
Processes of lithography and relief printmaking; includes line, shape, texture, value and color in stone lithography, wood, linoleum printmaking. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory Hours. 3 Credit Hours.
Offered At: HW

Art (ART) 127
Printmaking II
Processes of intaglio, dry point and screen printmaking, includes line, shape, texture, value and color in printmaking process. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 3 Credit Hours.
Offered At: HW, WR

Art (ART) 130
African-American Art
Survey of African-American art over last 150 years; covers African-American crafts and sculpture during 19th Century; realistic painters of early 20th Century; cubistic and abstractionist influences on painting and sculpture; non-revolutionary artists such as Charles White, Henry O. Tanner, Aaron Douglas and Hughie Lee-Smith. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX, OH
IAI: F2 906D GE: Fine Arts HD Course

Art (ART) 131
General Drawing
Still-life, landscape and human figure; experimentation with various media. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: ART 904

Art (ART) 132
Advanced General Drawing
This course builds on and refines the experiences of general drawing focusing on a variety of color media. Emphasis is on invention and formal concerns. Explorations into abstraction, non-objective, and fabricated image making are covered in this class. Course includes vocabulary development, critical analysis activities, and reference to historic models of drawing. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 131.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: ART 905

Art (ART) 141
Intro To The Visual Arts
This course is a practical application of fundamentals of the visual arts. This includes the study of the principles and elements of design through exploration of various art materials, process and techniques. Writing assignments, as appropriate to the discipline, are part of the course.
4-6 Laboratory Hours. 2-3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Art (ART) 142
Figure Draw & Composition
Study of the human figure in action and still poses; rapid sketching, long poses, memory work, and portraiture. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 131.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, OH, TR, WR

Art (ART) 143
Advanced Figure Drawing
Development of skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 142.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, OH, TR, WR

Art (ART) 144
Two Dimensional Design
A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through two-dimensional design principles and theories using a variety of media. Fundamental design and experimentation in relationship s of line, shape, textures, and color. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: ART 907

Art (ART) 145
Three Dimensional Design
Study of the fundamentals of the formal systems and basic elements of visual organization through three-dimensional design principles and theories; use of a variety of media, including recent and traditional materials, such as clay and plaster. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, OH, TR, WR
IAI: ART 908

Art (ART) 150
Crafts Workshop
Creation and construction of art forms in clay, metal, cloth, fibers, plaster and wood; art process in both two and three dimensions; recommended for pre-teachers. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: TR, WR

Art (ART) 161
Freehand Drawing
Elementary drawing in charcoal and pencil from simple groups of block forms, still life and architectural ornament; includes developing pencil technique. No previous drawing experience necessary. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, KK, TR

Art (ART) 162
Architectural Representations
Continuation of Art 161. Experimentation with water colors and their use in rendering of architectural representation of building materials, textures and nature; includes exterior and interior perspectives. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (ART 141 and ART 161), or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: TR

Art (ART) 163
Water Color Painting
Elementary painting and sketching including still life, landscape and figure painting. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 3 Credit Hours.
Offered At: KK, TR, WR

Art (ART) 166
Oil Painting Techniques
A studio course that serves as an introduction to basic painting techniques and color principles applied to the exploration of oil and acrylic painting media. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 131, or Consent of Department Chairperson.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Art (ART) 167
Advanced Oil Painting Techniques
Advanced techniques and experimentation in use of materials and the development of creative styles in oil painting. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 166, or Consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Art (ART) 172
Communications Design I
Design application and merchandising of products and ideas; theory of design of form and function applied to products, brochures, packaging, display, and other commercial designs; application of design in television, newspapers, magazines, billboards, and posters for advertising industry. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 144, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Art (ART) 176
Graphics Design I
Creative approach to graphics, using traditional and modern media, such as drawing, painting, photography, constructed and sculptured art; includes reproduction of illustrations relating to advertising, periodical and book publishing. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 144, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, OH

Art (ART) 177
Graphics Design II
Continuation of Art 176. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 176
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Art (ART) 196
Ceramics
Ceramics formed by coil, slab or free form methods. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory Hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR

Art (ART) 197
Advanced Ceramics & Sculpture
Advanced work in pottery and sculpture, use of molds and various materials, individual experiments in pottery and sculpture. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 196, or Consent of Department Chairperson
6 Laboratory hours. 3 Credit Hours.
Offered At: HW, OH, TR

Art (ART) 198
Sculpture I
The creation of sculpture using the formal systems and elements of visual organization in a study of materials and processes; this is done using a variety of tools and media, including but not limited to contemporary and traditional materials. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or concurrent enrollment in ART 145 with consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: HW, WR

Art (ART) 200
Individual Art Projects
For advanced students who have completed beginning level studies in the corresponding discipline specific course, or an equivalent course at another institution, or who can demonstrate proficiency through portfolio review in the skills taught in the corresponding 100 level course. Work is completed on an independent project, the subject of which is designed through dialogue between the student and instructor. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted towards graduation.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-8
Art Projects: Advanced Ceramics
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 197, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-9
Art Projects: Computer Art/Application
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 275, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-A
Art Projects: Photography
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 115, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-B
Art Projects: Advanced Photography
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 Grade of C or better in ART 116, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-C
Art Projects: Color Photography
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 117, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-D
Art Projects: Printmaking I
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 126, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-E
Art Projects: Printmaking II
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 127, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-F
Art Projects: General Drawing
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 131, or Consent of Department Chairperson
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-G
Art Projects: Advanced Drawing
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 132, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-H
Art Projects: Painting I
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 134, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-I
Art Projects: Painting II
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 135, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-J
Art Projects: Painting III
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 136, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-K
Art Projects: Intro Visual Arts
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 141, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR
Repeatable: Yes, up to 3 times

Art (ART) 200-L
Art Projects: Figure Drawing
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 142, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-M
Art Projects: Adv Figure Drawing
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 143, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-N
Art Projects: Two Dimensional Design
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 144, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-O
Art Projects: Three Dimensional Design
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 145, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-P
Art Projects: Crafts Workshop
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 150, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-Q
Art Projects: Freehand Drawing
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 161, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR
Repeatable: Yes, up to 3 times

Art (ART) 200-R
Art Projects: Architectural Rep
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 162, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR
Repeatable: Yes, up to 3 times

Art (ART) 200-S
Art Projects: Watercolor Paintng
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 163, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-T
Art Projects: Oil Painting
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 166, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-U
Art Projects: Advanced Oil Painting
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 167, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-V
Art Projects: Communication Design I
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 172, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-W
Art Projects: Advanced Com Art
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 174, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-X
Art Projects: Graphic Design I
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 176, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-Y
Art Projects: Graphic Design II
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 177, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 200-Z
Art Projects: Ceramics
For advanced students who have taken all or most other art courses. Work on individual projects. Hours scheduled at convenience of student and instructor. Writing assignments, as appropriate to the discipline. are part of the course.
Eligibility for ENGLISH 101 or Grade of C or better in ART 196, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 3 times

Art (ART) 213
Intermediate Digital Photography
This is an advanced course in digital photography, intended to build and expand upon skills learned in beginning digital photography. It will address broad and in-depth techniques in digital image creation and production toward professional and fine art photography output. Writing assignments, as appropriate to the discipline, are part of this course.
Grade of C or better in ART 113, or Consent of Coordinator or Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: HW, WR

Art (ART) 270
Photography Portfolio
Creation and completion of a photography portfolio for transfer, exhibition, or employment. This course will address paths for professional advancement in photography and the visual, written, and oral materials and skills necessary. Writing assignments, as appropriate to the discipline, are part of this course.
Completion with a grade of C or better in ENGLISH 101 and ART 113 and ART 115 and completion with a grade of C or better or concurrent enrollment in one of the following (ART 116 or ART 117 or ART 2XX) or Consent of Coordinator or Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Art (ART) 272
Communications Design II
Story boards for television commercials, graphics design for television, and development and making of television commercials. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 172, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Art (ART) 275
Computer Art And Applications
An introduction and exploration of electronic imaging through hands-on experience of applications in computer graphics. A variety of software packages pertaining to art will be utilized, as well as input and output devices. The goal of the course is to begin to develop imaging skills in graphics systems. Students will also be introduced to computer concepts of design, color, image importing and exporting, image manipulation, and sequencing techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ART 144, ART 131, or ART 115 or Consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA, OH, TR, WR

Astronomy (ASTROMY)

Astronomy (ASTROMY) 201
Descriptive Astronomy
Descriptive survey of major astronomical facts, concepts, and relationships, starting with the solar system and extending to stars, galaxies, and cosmogonies. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, MX, TR, WR
IAI: P1 906 GE: Physical Sciences

Astronomy (ASTROMY) 203
The Solar System
A laboratory course that investigates the solar system and the tools used to explore it. Topics include planetary motion, electromagnetic radiation, the formation of the solar system, the physical natures of planets, moons, asteroids, and comets, and discoveries of extrasolar planets. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and successful completion of MATH 99 or higher.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: HW, WR
IAI: P1 906L GE: Physical Sciences

Automotive Technology (AUTOTEC)

Automotive Technology (AUTOTEC) 101
Intro To Automotive Techn
Lecture and laboratory course covering the operating principles of the modern automobile. Subjects will include Preventive maintenance of the cooling system service, fuel system, tires and wheels, lubrication system and accessories. Course will include career exploration and automotive academics. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 102
Introduction to Collision Technology
This course includes students to technical skills and competencies in the workplace for entry-level positions. In addition to technical training, students develop interpersonal and problem-solving skills that are required in the dynamic workplace of today. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 103
Engine Concepts
Disassembly, inspection and service of automotive engines with major emphasis on operational diagnostic and service. students gain skills based on industry standards to perform precise diagnostics to solve operational issues related to the automotive engine. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in AUTOTEC 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 104
Electrical Systems & Power Accessories
Introduction to theory, diagnosis, and repair of automotive electrical and electronic components and systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in AUTOTEC 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 105
Fuel Management 1
Service techniques and theories of operations necessary to maintain modern fuel delivery systems. Service will be performed on modern fuel injection systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (AUTOTEC 103 or AUTOTEC 104), or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 106
Engine Performance I
This course examines computerized engine controls. In addition, the course presents material on the various fuel delivery and emission control components. Selected topics include the study of fuel delivery systems, fuel pumps, computer sensor and sensor testing, on-board diagnostics, infrared analysis, and testing. Writing assignments, as appropriate to the discipline will be a part of the course.
Grade of C or better in (AUTOTEC 101 and AUTOTEC 104).
9 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 107
Automotive Body Welding
Students will acquire knowledge and skills using MIG, TIG and spot welding equipment before welding operations in repairing damaged auto bodies. Proficiencies will be developed in butt and lap welding on light-gauge metal. Course will include replacement of body panels using adhesive techniques. All work performed must be in accordance with established collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 108
Work Based Learning I
Introduction to applied automotive technology in an actual work setting. Provides hands-on experience in an automotive shop. Students work on actual vehicles, carrying jobs from assignment through completion. Business operators will supervise students at the worksite. Instructors will supervise all on-campus work, and also visit off-campus worksites to observe, monitor and critique student performance. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 109
Automotive Brakes
Theory of operation and servicing of braking systems, both conventional and computerized anti-lock brake systems. Emphasis on diagnostic procedures; inspection techniques and service. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in AUTOTEC 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 111
Auto Parts Specialist I
Lecture and Laboratory course covering the principles of selling automotive parts in retail and wholesale parts establishments. Subjects will include: customer relations, parts identification and usage, stockings control, products knowledge, telephone ethics, selling skills, and cataloging. Writing assignments, as appropriate to the discipline are part of the course.
9 Laboratory hours. 3 Lecture hours. 6 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 112
Auto Parts Specialist II
Lecture and Laboratory course covering skills necessary to manage an automotive parts retail store. Subjects will include customer relations, building team staff, inventory control, corporate relationships, conflict resolution, and business analysis. Writing assignment, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 111.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 117
Auto Body Reconstruction I
Study of the principles and techniques of auto body sheet metal connections, use and care of basic tools, types and application of fillers, analysis of the extent of damage, and performance required repair operations. Students develop skills in repairing and/or removing and replacing damaged body panels. Emphasis is placed on developing proficiency in repairing body damage according to establish collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 107, or Consent of Department Chairperson.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 118
Auto Body Repainting I
Students will execute the techniques of preparing body surfaces, selecting and mixing paint, and spraying. Refinishing techniques will be performed on individual panels until each student demonstrates competency to refinish a live vehicle. Course will also emphasize recognizing and performing repair techniques for damage paint finishes in accordance with collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 119
Automotive Body Detailing
Study of the principles of auto body detailing for post collision repaired vehicles and new and used car customer delivery service. Students will develop skills in selection and use of proper cleaning and polishing materials, proper buffing and polishing techniques, preparation of plastic bumpers and accessories, steam cleaning of engine components and care of rubber parts and interior cleaning. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 121
Structural Analysis and Damage Repair I
The development of skills in roughing and shaping procedures on automotive metal to make satisfactory minor body repairs. the emphasis is on the alignment of component parts such as doors, hoods, front-end assemblies and deck lids. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 102, 117, 217 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 122
Structural Analysis and Damage Repair II
Development of skills in manual and computer alignment with roughing and shaping procedures on automotive metal necessary to make satisfactory major body and unibody frame repairs. The emphasis is on the alignment of structural component parts such as, front-end assemblies, frame sections and body reconstruction. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 102, 117, 121, 217 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 130
Topics in Alternative Fuel Technology
This course will introduce the student to special topics in alternative fuel vehicles and all related technology. Additionally, the course will provide the knowledge base needed to understand alternative fuel vehicles, green technology, and their effect on the current and future of the world. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 101,104,105,204,205 and AUTOTEC 206; or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 204
Electrical Systems II
This course is designed to provide the necessary knowledge and skills to service today's automotive electrical systems. Selected topics include the reading of wiring diagrams, diagnosing electrical accessories, and operating and designing ignition systems. Students learn circuit testing on today's modern multiplex and CAN/BUS system protocol. Course will emphasize proper handling of advanced solid-state electronics such as air bags and computers. Writing assignments as appropriate to the discipline are part of the course.
Grade of C or better in (AUTOTEC 101 or AUTOTEC 104), or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 205
Fuel Management II
Emphasis on servicing of computerized engine and body controlled modules. Emphasis on service techniques for OBD II foreign and domestic computer control system. Students will gain skills in the use and interpretation of data related to modern diagnostic test equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 105.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 206
Fuel Management III
This course builds upon the knowledge gained in previous fuel management courses with emphasis on diagnosis and repairs to sensors and actuators that control engine performance. Students will gain advanced diagnostic skills to interpret waveform patterns through the use of laboratory scopes. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 205.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 208
Work Based Learning II
Advanced hands-on experience in an automotive shop. Students work on actual vehicles, carrying jobs from assignment through completion. Business operators will supervise students at the worksite. Instructors will supervise all on-campus work based learning students, and also visit off-campus worksites to observe, monitor, and critique student performance. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 209
Steering & Suspension Systems
Theory of operation in servicing of suspension systems both rear and front wheel drive systems. Students gain skills in the use of computerized four-wheel alignment equipment, servicing McPherson struts, shock absorbers, rack and pinion and conventional steering systems. Diagnosis and service of Tire Monitoring Systems (TMS) is now part of the course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in AUTOTEC 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 210
Engine Performance II
This course covers the construction, operation and testing of the ignition, fuel, and computer systems. Training is offered on the use of oscilloscopes, infrared gas analyzers, and other diagnostic equipment such as scan tool testing. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (AUTOTEC 101, AUTOTEC 104, AUTOTEC 106 and AUTOTEC 204).
9 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 212
Manual Drive Train & Axles
Upon successful completion of this course students will demonstrate understanding of design, construction, operation and the service principles of automotive clutches, manual transmissions, drivelines, differentials, and rear axles. Service work includes using appropriate repair and test equipment, determining problems or extent of damage, and performing corrective work in accordance with established industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in AUTOTEC 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 214
Transmission Transaxle & Driveline
This course provides the fundamentals of automatic transmissions and transaxles. Its purpose is to prepare students for the more in-depth operation and diagnosis of automatic transmissions and transaxles. It also is designed to provide automotive technology students with adequate instruction and hands-on experiences required by auto service centers and repair shops that perform automotive repairs. Writing assignments, as appropriate to the discipline, are part of the course. This course prepares students for the ASE certification exam.
Grade of C or better in (AUTOTEC 101, AUTOTEC 104 and AUTOTEC 212).
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 215
AutoTemperature Control Systems
Service procedures and theory of operation of both manual and electronically controlled heating and air conditioning systems. Emphasis will be on diagnosis, service, and replacement of air conditioning components. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (AUTOTEC 101 and AUTOTEC 104)
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 217
Auto Body Reconstruction II
Students will increase their knowledge and skills by repairing more complex, extensive damages. Removal and installation of trim, body panels, welding, aligning various body components of the body, repairing of body hardware and accessories. Repairing or replacement of mechanical components as required for complete reconstruction of the vehicle is emphasized in this course. Students will utilize estimating skills to estimate the extent of damaged, repair time and cost of repairs and repair strategies. All work will be performed in accordance with established collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 117.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 218
Auto Body Repainting II
Students will build on their refinishing skills learned in Automotive Technology 118 course. Advanced refinishing techniques are emphasized through practical application of auto body refinishing techniques on live vehicles as well as panels. As refinishing skills increase in proficiency students will acquire skills to perform color matching to refinish weathered finishes and localized panel damage repairs. Students will be evaluated on their ability to complete refinishing assignments in accordance with industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 118.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 220
Collision Estimating
Estimating for automotive insurance claims and adjusting damages. Emphasis will be on appraisal procedures, flat rate computations, use of collision estimator and preparation of insurance claim forms. Writing assignments, as appropriate to the discipline, are part of the course.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 223
Auto Body Repainting III
This course introduces students to the theory and application of color in custom automotive paint jobs. Topics include color analysis, paint mixing and tint matching. Students may also receive instruction in primer choice and application, clear coat finishing and the equipment used to apply primer, paint and finisher. Instruction also covers refinishing techniques, such as the use of waterborne acrylic materials, color blending paint repair work and troubleshooting common auto painting problems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 102, 118, 218 or Consent of Department Chairperson.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Automotive Technology (AUTOTEC) 224
Electric and Hybrid Vehicle I
This course provides a comprehensive introduction to the essential principles of operating electric and hybrid vehicles to equip students with the knowledge necessary for the rapidly evolving automotive landscape. Students will explore a variety of topics through practical and theoretical perspectives, including the functional characteristics of batteries; the mechanics of electric motors; energy management; and the functionality and auxiliary accessories. Through this work, students will develop a deep understanding of energy management, functionality, and efficiency in electric and hybrid vehicles. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 101,104,106, 204, and 210; or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR

Automotive Technology (AUTOTEC) 230
Introduction to Alternative Fuel Technology
This course will introduce the student to the theories and service techniques of alternative fuel vehicles in today's society. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 101,104,105,204,205, and AUTOTEC 206; or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 231
AFT Hybrid Fuel Vehicles
This course builds upon the knowledge gained in the previous alternative fuel courses with an emphasis on theories and servicing techniques of hybrids and fuel-cell vehicles. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 101,104,105,204,205 and AUTOTEC 206; or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, OH

Automotive Technology (AUTOTEC) 232
Hybrid and Fuel Cell Vehicles
In this course, students will learn about alternative fuel technologies, apply advanced service techniques, and experiment with electric, hybrids, fuel-cell and other alternative energy source vehicles. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AUTOTEC 101,104,105,204,205 and AUTOTEC 206; or Consent of Department Chairperson.
9 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: KK, OH

Aviation (AVIATN)

Aviation (AVIATN) 101
Aviation General Sciences I-Math, Science and General Physics
This course introduces math and physics, basic aircraft types, nomenclature, and aerodynamics. Students learn algebraic operations, fractions, exponents, roots, and geometric analysis as applicable to aircraft design, powerplant operations, and aeronautical physics, as well as learning the physics behind simple machines, heat dynamics, fluid and gas laws, work and power, air pressure and the principles of weight and balance on an aircraft. The student will leave the course understanding basic principles of mathematics and physics and be able to apply that knowledge to safely weighing aircraft, computing the center of gravity, and applying an array of math and physics functions. Writing assignments, as appropriate to the discipline, are part of the course.
5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.
Offered At: OH

Aviation (AVIATN) 102
Aviation General Sciences II - Tools, Surfaces, and Corrosion Control
This course provides a study into the charts, diagrams, and text, which show the dimension's, stations, access doors, zoning and physical locations of the major structural components of an aircraft. Students will be introduced to the tools, hardware, materials, and processes used in aircraft maintenance and repair. At the end of this course, students will know the proper handling and inspection of aircraft and be able to recognize various types of corrosion causes and troubleshoot corrective measures to control corrosion of different types of metals used in aircraft construction. Writing assignments, as appropriate to the discipline, are part of the course.
5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.
Offered At: OH

Aviation (AVIATN) 103
Aviation General Sciences III - Maintenance Operations and Records
This course provides an introduction of maintenance publications and mechanic requirements for maintenance forms and records as well as an overview of flexible and rigid lines and fittings used to convey fluids in aircraft systems. Students learn aircraft services procedures; ground handling of aircraft and safety procedures and types of powerplants used in aircraft. By the end of this class, students will understand FAA regulations regarding maintenance personnel and know the limitations and requirements for inspection, maintenance records, and aviation mechanic privileges. Writing assignments, as appropriate to the discipline, are part of the course
Grade of C or better in AVIATN 101 and AVIATN 102
5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.
Offered At: OH

Aviation (AVIATN) 104
Aviation General Sciences IV - Basic Electricity
: This course introduces electrical theory and operation. Students learn to calculate and measure voltage, current, resistance, how to build and analyze simple circuits and to use electrical schematics. At the end of this course, students will be able to discuss alternating current electricity and basic electronics theory and apply it to servicing and troubleshooting aircraft batteries and solid state devices.
5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.
Offered At: OH

Aviation (AVIATN) 200
Aviation Sheet Metal
This course introduces the theory and basic skills needed to assist aircraft sheet metal mechanics and to perform aircraft sheet metal modification and repair. Students develop skills in pattern layout, drilling, riveting, sheet metal bending, simple repairs, safely use basic hand and machine tools, identify basic material and hardware, common fastener installation/removal, corrosion removal/treatment, weld inspection and the use of gas and arc welding equipment, and print reading used in aircraft maintenance. Writing assignments, as appropriate to the discipline, are part of the course.
14 Laboratory hours. 4 Lecture hours. 8 Credit Hours.
Offered At: OH

Aviation (AVIATN) 204
Airframe Assembly and Inspection
This course provides instruction on how to assemble, rig, and verify proper alignment of fixed and movable portions of fixed wing and rotor-wing aircraft. Students learn to conduct conformity inspections of aircraft, including required research and maintenance record entries. At the end of the class, students will be able to apply this knowledge, complete assembly, and rigging on the aircraft structure, control cable construction and maintenance, flight controls, aircraft stability and control surface balances and then log the maintenance record entry.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 206
Electrical, Navigational, and Communications Systems
This course introduces fundamentals of aviation electronics systems (avionics), theory of operation, use, installation, testing, and services. Students learn theory and applications of motors, generators, alternators, and voltage regulation. At the end of this course, students will understand the electrical supply and production systems found on an aircraft and apply their knowledge by testing, wire splicing, routing and installing and servicing aircraft electrical systems.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 207
Non-Metallic Structures
This course provides how to inspect and repair wood structures, fabric and fiberglass coverings, and the application of protective or decorative finishes. Students learn basic structural techniques for fiberglass laminates, plastics, and honeycomb materials, as well as some interior refinishing. At the end of class, students will be knowledgeable of structure types and be able to troubleshoot non#metallic structures for defects and then repair them.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 208
Aircraft Systems I
This course provides theory, operation, and repair information of hydraulic and pneumatic power systems. Students learn theory, operation, and maintenance of air conditioning, heating, oxygen, and cabin pressurization systems. At the end of the class, students will be knowledgeable of aircraft hydraulic system components and hydraulic system filtration and know how to repair and service aircraft hydraulic system seals and back#ups.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 209
Aircraft Systems II
An introduction to the theory, operation, service, and repair of landing gear, retraction systems, wheels, tires, brakes, struts, anti-skid systems, and shocks. The study of aircraft installed systems designed to prevent icing of airframes and engines. Maintenance and servicing of these systems is covered as well as atmospheric conditions that lead to precipitation icing in flight.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 213
Aircraft Systems III
This course provides instruction on basic aircraft and engine theory, operation, installations, and troubleshooting. Students learn aircraft and engine fuel systems and components, including tanks, lines, pumps, valves, selectors, and quantity#indicating systems. At the end of this course, students will be able to apply these skills to troubleshoot, repair, and service aircraft engine fire protection system and their components.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 214
Reciprocating Engines
This course provides instruction on overhaul, operation, and installation of aircraft reciprocating (piston) engines. Students learn engine theory and radial design and how to complete checks on hydraulic lock and operation of radial engines and maintenance procedures. At the end of class, students will be able to overhaul reciprocating engines and understand how to complete those checks and maintain proper record keeping of the overhaul.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 215
Turbine Engines
This course provides an understanding of various types of turbine engine constructions and overhaul. Students learn disassembly, inspection, checking, reassembly, testing, and repair. At the end of the course, students will be able to apply these skills and troubleshoot remove, repair, and install turbine engines back onto the aircraft.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 216
Powerplant Systems I
This course introduces the student to Ignition and starting systems, engine cooling systems, and engine exhaust and reversal systems. Students learn reciprocating engine baffles, carburetor heat, heat exchangers, superchargers, turbo charges, intake, turbine engine exhaust, thrust reverser systems, and engine cooling systems. At the end of the course, students will be able to apply their skills by troubleshooting and repairing powerplant systems.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 217
Powerplant Systems II
This course introduces the student to theory of operation, construction, overhaul, maintenance, and adjustment of fuel metering devices such as float type carburetors, pressure carburetors, and fuel injection systems used with reciprocating engines and turbine engine fuel control used in turbine engines. Students learn lubrication characteristics, engine lubrication, external units, filters, dilution, and oil temperature controls. At the end of the course, students will be able to apply this knowledge by inspecting and checking engine fuel system components and troubleshooting reciprocating and turbine engine operations.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 218
Aircraft Propellers and Inspections
This course introduces the student to the construction, inspection, checking, servicing, and repairing of fixed pitch, constant speed, feathering controls, and governing systems. Students learn conformity inspections of aircraft and powerplants, including required research and maintenance record entries. At the end of this course, students will be able to take the theory and operation of propellers and be able to measure blade angle and repair, and lubricate and install on aircraft.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: OH

Aviation (AVIATN) 219
Aviation Maintenance Technician Capstone
This individualized course will utilize interactive adaptive software to custom guide the student through a comprehensive review of the General, Airframe, and Powerplant subjects relevant to FAA mechanic certification testing with Airframe and/or Powerplant ratings. An instructor will guide the student in accessing their individual needs and aid in determining their level of preparedness for each phase of certification testing. At the end of this course, students will have taken the FAA written exams required of certification and prepared for the FAA Oral and Practical exam.
Must be 18 years or older with a valid driver's license, US Citizen and clean drug screen.
7 Laboratory hours. 3 Credit Hours.
Offered At: OH

Baking & Pastry (330BKPS)

Baking Pastry (330BKPS) 765
Introduction to Baking
The focus of this course will be an introduction to culinary history with emphasis on baking and pastry; instruction in principles and procedures of basic equipment and its use and beginning fundamentals of baking. A look at the contemporary employment options in this field will compare restaurant, specialty (e.g., wedding cakes), retail and wholesale careers. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; concurrent enrollment in 330BKPS 766, 767, 768, 769.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 766
Baking Safety and Sanitation
An introduction to safe food production practices. Topics will include prevention of food-borne illness, HACCP procedures, facility sanitation, legal guidelines, kitchen safety, and safe food preparation, storing, and reheating guidelines. The National Restaurant Association ServSafe examination will be a part of this course. Students who pass the exam will receive the ServSafe certification. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; concurrent enrollment in 330BKPS 765, 767, 768, 769.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 767
Baking Techniques
This course provides an introduction to the functions of baking ingredients (flour, sugar, fat, eggs and liquids) and mixing methods for doughs, fermentation techniques, and bread baking. Special emphasis will be placed on lean dough production and enriched dough methods (laminating, rubbing, and cut-in). Training in evaluation techniques of finished products will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and eligibility for MATH 118 + MATH 18, MATH 124 + MATH 24, MATH 125 + MATH 25 (or higher) or eligibility for MATH 99; concurrent enrollment in 330BKPS 765, 330BKPS 768, 330CUL 700 and 330CUL 703.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 768
Pastry Techniques
An introduction to pastry products and methods, this course will include lamination, short crust, liaison, meringue, pastry cream, pate a choux, vanilla sauce, ganache, custard and mousse. Assembling the various components into completed pastries will include filling, glazing, garnishing and making a variety of sauces. Students will learn to evaluate the quality of the items that are produced. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; concurrent enrollment in 330BKPS 765, 766, 767, 769.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 769
Cookies and Tarts
An introduction to a variety of mixing methods, doughs, batters, fillings and glazes with emphasis on preparing unfilled and filled cookies, mignardises, tarts, a variety of petit fours and other one bite items. Emphasis will be on production and will include specialty preparations, like gingerbread houses. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; concurrent enrollment in 330BKPS 765, 766, 767, 768.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 770
Basic and Classical Cakes
With emphasis on the different mixing and assembly methods, the students will prepare a variety of classical cakes from simple pound cakes to elaborate filled cakes and tortes. Classical preparations will include Sacher Torte, Dobos Torte, Opera Torte, Marjolaine, Gateaux St. Honore, and Charlottes. Piping skills will be introduced and practiced. Writing assignments, as appropriate to the discipline,
Grade of C or better in 330BKPS 767, 768 and 330BKPS 769; concurrent enrollment in 330BKPS 771, 772, and 330BKPS 773.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 771
Special Occasions Cakes
Decorating techniques will be practiced, including flowers and borders, royal icing, fondant draping, crimping and ruffling and gum paste flowers. Students will prepare special occasion cakes, seasonal cakes, and classical and contemporary wedding cakes. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767, 768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, 772, and 330BKPS 773.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 772
Individual Pastries
Quantity production will be a key element of this course. From scaling recipes and calculating yields to working a pastry station, each student will be exposed to volume production for pastry buffet tables and retail operations. Emphasis will include presentation and plate designs for banquet desserts. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767,768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, 771, and 330BKPS 773.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 773
Confectionary Arts
Display pieces are an important art in the pastry chef's repertoire. This course will serve as an introduction to chocolate, sugar, marzipan, finishing techniques, molds and templates. Each student will create a centerpiece utilizing the skills learned. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767,768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, 771, and 330BKPS 772.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 774
Hearth Breads and Rolls
Learn to mix, shape, bake and store bread and rolls. Emphasis will be on efficiency and increased speed in production of quality products. Students will use traditional fermentation methods, equipment, and methods to emphasize flavor, texture, and appearance as well as techniques that increase shelf life. Students will learn to evaluate the quality of the items that are produced. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767, 768 and 769; concurrent enrollment in 330BKPS 775 and 776
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 775
Specialty Breads
This course will introduce advanced bread principles and techniques, including regional and ethnic breads. Production will include multi-grain breads, sourdoughs, bagels, pretzels, holiday or seasonal breads, and flat breads. Special emphasis will be placed on mixing, shaping, and finishing specialty breads; and innovative baking methods. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767, 768 and 769; concurrent enrollment in 330BKPS 774 and 776.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 776
Advanced Baking Principles
We live in a world where many people have special dietary needs. This course examines baking methods and principles from a nutritional and chemical/physical point of view. Topics to be covered include: diets such as vegan, diabetic, low carb and gluten-free, nutritional analyses, and preparation of items for persons with special dietary needs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767, 768 and 769; concurrent enrollment in 330BKPS 774 and 775.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 777
Chocolate and Confections
This course introduces the student to the tempering of chocolate, creation of chocolate sculptures and simple centerpieces, and production of chocolates and other confections including fudge, fondant, nougat, caramel, toffee and truffles. Emphasis will be on creating confections by hand and with special equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 765, 330BKPS 767, 330BKPS 768, 330CUL 700 and 330CUL 703, 330BKPS 784, 330BKPS 776, and 330CUL 714; concurrent enrollment in 330BKPS 788,330CUL 717, and HMGT 724.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 778
Contemporary Desserts
Assembled and decorated with a modern approach, desserts will be produced using the latest technology and equipment. Students will use specialized equipment, practice new presentation methods, and focus on freshness, simplicity of style, and ease of production. Each student will produce a plated dessert and centerpiece using a variety of the techniques learned throughout the program and showing key elements of production, design, freshness of flavor and consistency. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 767,768,769, 773, and 330BKPS 776; concurrent enrollment in 330BKPS 777.
15 Laboratory hours. 1 Lecture hours. 6 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 784
Breads and Rolls
Learn to mix, shape, bake and store breads and rolls including reginal, ethnic and flat breads. Special emphasis will be placed on mixing, shaping, and finishing specialty breads such as multi-grain breads, sourdoughs, bagels, pretzels, holiday or seasonal laminated breads. Emphasis will be on efficiency and increased speed in production of quality products. Students will use traditional fermentation methods, equipment, and methods to emphasize flavor, texture, and appearance as well as techniques that increase shelf life. Students will learn to evaluate the quality of the items that are produced.Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 765, 330BKPS 767, 330BKPS 768, 330CUL 700 and 330CUL 703; concurrent enrollment in 330BKPS 776, and 330CUL 714.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 788
Classical and Special Occasion Cakes
With emphasis on the different mixing and assembly methods, the students will prepare a variety of classical cakes from simple pound cakes to elaborate filled cakes and tortes. Classical preparations will include Sacher Torte, Dobos Torte, Opera Torte, Marjolaine, Gateaux St. Honore, and Charlottes. Piping skills will be introduced and practiced. Writing assignments, as appropriate to the discipline.
Grade of C or better in 330BKPS 765, 330BKPS 767, 330BKPS 768, 330CUL 700 and 330CUL 703, 330BKPS 784, 330BKPS 776, and 330CUL 714; concurrent enrollment in 330BKPS 777, 330CUL 717, and HMGT 724.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Baking Pastry (330BKPS) 800
Bakery Operations
This course is held within a bakery/café environment in which students will work for half of the semester in the bakery and the other half in the front of the house to be able to have a well-rounded operational experience. Students will utilize the baking skills that they have learned in prior lab classes to effectively bake in a bakery setting with a focus on guest satisfaction, speed and product consistency. Food safety and sanitation, techniques, presentation and professionalism are also included. When working counter service, students will rotate through positions typically found in a cafe while creating a positive customer service experience. Professionalism, teamwork, and following set service standards are included. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330BKPS 765, 330BKPS 767, 330BKPS 768, 330CUL 700 and 330CUL 703, 330BKPS 784, 330BKPS 776, 330CUL 714, 330BKPS 788, 330BKPS 777, 330CUL 717, and HMGT 724; concurrent enrollment in HMGT 860.
18 Laboratory hours. 1 Lecture hours. 7 Credit Hours.
Offered At: KK

Biology (BIOLOGY)

Biology (BIOLOGY) 100
Critical Readings In Biology
Prepares students to read in the life sciences. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Biology (BIOLOGY) 101
General Course Biology I
Basic principles and concepts of biology; general considerations of biological processes, including cellular and organismic levels. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR

Biology (BIOLOGY) 102
General Course Biology II
Continuation of Biology 101. Basic principles and concepts of biology, including how organisms reproduce and inherit; how life on earth evolved and how present day organisms relate to each other. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Biology (BIOLOGY) 103
Biology Of Human Sexuality
Structure and function in human sexuality; sexuality related to physical, mental, and emotional health; the relationships between sexual behavior and human ecology, population, gene frequencies, and society. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Biology (BIOLOGY) 107
Nutrition-Consumer Education
Science of food as it relates to health, including food composition and utilization, food preparation and preservation, nutrition, special diets, fad foods, and foods of the future; social and political aspects of food in the world's future. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
GE: Life Sciences

Biology (BIOLOGY) 109
Human Genetics & Evolution
Basis of inheritance; analysis of human pedigrees; sex-linkage; physical and behavioral aspects of human evolution. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: L1 907 GE: Life Sciences

Biology (BIOLOGY) 110
Human Ecology
Effects of dense population, effect of humans on air, minerals, water, noise; and how these affect humans. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Biology (BIOLOGY) 113
The Biology Of Women
A comprehensive look at the human female throughout her entire life span. Deals with Biological sex differentiation, fetal development and reproductive anatomy. Explains events of a woman's reproductive life from menarche to menopause, sexuality, birth control, infertility, and pregnancy. Discusses sexually transmitted diseases, gynecological problems, breast cancer, controversial treatments and health care. Examines sociological and cultural health factors that influence a womans nutrition, physical activity, use of cosmetics, use and abuse of drugs. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR
GE: Life Sciences HD Course

Biology (BIOLOGY) 114
General Education Biology
A laboratory course emphasizing scientific inquiry through selected concepts of biology, such as organization, function heredity, evolution, and ecology. Biological issues with personal and social implications will be introduced to enable students to make informed decisions. This course is equivalent to the Illinois Articulation Initiatives General Education generic course numbered L1900L. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: L1 900L GE: Life Sciences

Biology (BIOLOGY) 115
Human Biology
Examines practical aspects of selected concepts in biology and their application to technology. Concepts may include heredity, growth, development, health, and ecology. Human systems may be studied as they relate to the major topics. Emphasis will be placed on the relationship of the issues to the individual and society. This course is equivalent to the Illinois Articulation Initiative's General Education generic course numbered L1904L. Writing assignments, as appropriate to the discipline, are part of the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: L1 904L GE: Life Sciences

Biology (BIOLOGY) 116
Introduction to Anatomy And Physiology
An introduction to human structure and function, from cellular structures to organ systems, with emphasis on scientific processes and common laboratory techniques. Writing assignments, appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, or successfully completing BIOLOGY 120 with a grade of "C" or higher, or consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, MX, OH, TR, WR
GE: Life Sciences

Biology (BIOLOGY) 119
Environmental Biology
This general education laboratory course is geared for both environmental science majors as well as non-science majors. The environment and human impacts on natural resources, pollution, and ecosystems are emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, MX, OH, TR, WR
IAI: L1 905L GE: Life Sciences

Biology (BIOLOGY) 120
Terminology For Medical Careers
Basic medical vocabulary for allied health professionals and others with minimal background in anatomy and physiology; includes study of the human body systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 121
Biology I
Cellular and Molecular Biology. Introduction to biochemistry, molecular genetics, cell structure, function and processes. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: BIO 910,L1 910L GE: Life Sciences

Biology (BIOLOGY) 122
Biology II
Continuation of Biology 121. Organismal biology, ecology, and evolution. An introduction to structure and function of major groups of microorganisms, fungi, animals, and plants. Emphasis on evolutionary relationships and ecological principles. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course. Biology majors intending on transferring to a four-year institution must complete both Biology 121 and 122 with a grade of C or better.
Grade of C or better in BIOLOGY 121, or Consent of Department Chairperson.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: BIO 910,L1 910L GE: Life Sciences

Biology (BIOLOGY) 130
Human Cadaver Anatomy I
Student-directed learning experiences designed to enhance histology and human cadaver competence. Includes osteology, articulations. Skeletal muscles, and neurology. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 226.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: MX

Biology (BIOLOGY) 131
Human Cadaver Anatomy II
Continuation of Biology 130. Directed learning experiences are designed to enhance histology and human cadaver competence. Primarily stresses the following areas: cardiovascular, thoracic and abdominal cavity systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (BIOLOGY 226 and BIOLOGY 227), or Consent of Department Chairperson.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: MX

Biology (BIOLOGY) 200
Field Biology
Natural history of local biota. Laboratory and field identification of plants and animals with a study of their habitats and relationships. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR

Biology (BIOLOGY) 201
Individual Topics in Biology
Students may conduct laboratory research, engage in a library project, and attend seminars. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: No more than 2 credit hours counted toward graduation.
0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: HW, KK, TR, WR
Repeatable: Yes, up to 2 times

Biology (BIOLOGY) 205
Pathophysiology
This course introduces the students to pathophysiology, which is the systematic study of the functional changes in cells, tissues, and organs altered by disease and/or injury. Students will also be introduced to the molecular and cellular basis of disease. Background in Anatomy and Physiology (Biology 226 and 227) is highly recommended for this course. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of BIOLOGY 115 or BIOLOGY 116 with a grade of C or higher or BIOLOGY 226 and BIOLOGY 227 completion or BIOLOGY 226 completion and concurrent enrollment in BIOLOGY 227.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX, OH

Biology (BIOLOGY) 209
Biochemistry
Biochemistry is designed to give the student in life sciences, allied health fields, and biotechnology a basic understanding of the biological processes at the molecular, cellular and organismic level. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121 and CHEM 205. Concurrent enrollment or prior completion of CHEM 207 with a grade of C or better, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, MX, TR

Biology (BIOLOGY) 226
Human Structure and Function I
Human anatomy and physiology. This laboratory course is recommended for those contemplating a career in the health professions and emphasizes the structure and function of the human body. Microscopic and gross anatomy are correlated with physiology. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 227
Human Structure and Function II
Continuation of Biology 226. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 226, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Biology (BIOLOGY) 236
Environmental Biology II
This course is a continuation of Biology 119. Environmental sampling and analysis techniques will be taught in the laboratory. Topics such as environmental toxicology, bioremediation, genetic contamination of plant species, conservation biology, and environmental law, policy and ethics may be covered in the lecture. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: OH

Biology (BIOLOGY) 240
Vertebrate Embryology
Introduction to the major morphogenetic events in vertebrate development, including development of gametes, fertilization, and the development of organ systems. Special attention will be paid to human development, developmental anomalies, and teratogens. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 226, or consent of department chairperson.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: MX

Biology (BIOLOGY) 241
Genetics
Principles of heredity, structure of genetic material, mechanism of transmission, and the role of genetics in evolution. Application of these principles to humans and other organisms is included. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121 (Biology I), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX, OH, TR, WR

Biology (BIOLOGY) 242
Evolution
Origin, history and development of plants and animals. Includes evidence from anatomy, paleontology, comparative physiology, biochemistry, immunology, and genetics. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (BIOLOGY 101 and BIOLOGY 102), or (BIOLOGY 114 and BIOLOGY 115), or Consent of Department Chairperson.
2-3 Lecture Hours. 2-3 Credit Hours.
Offered At: DA, KK

Biology (BIOLOGY) 250
Intro To Molecular Biology
The first course in a three-part series in the biotechnology program/plan 215. This course stresses an introduction to current concepts and progress in modern molecular biology with emphasis on DNA science and genetic engineering as it applies to molecular, cellular and organismic biology. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted toward graduation.
Grade of C or better in BIOLOGY 121, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR
Repeatable: Yes, up to 2 times

Biology (BIOLOGY) 251
Molecular Biology I
The second course in a three-part series in the biotechnology program/plan 215. The course stresses the theory and practice of separation techniques and safety procedures that would be employed in the purification and assay of such biomolecules as nucleic acids, proteins and other related substances and the relationship of these molecules to living organisms. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 250, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, TR

Biology (BIOLOGY) 252
Molecular Biology II
The third course in a three part series, stresses the theory and practice of current techniques used in DNA science, protein isolation, immunology and introduces selected biotechnology protocols. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 251, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: TR

Biology (BIOLOGY) 253
Plant Molecular Biology
This course is designed for students in the life sciences, and biotechnology to understand how plants function at the molecular level and discuss the current advances in plant molecular biology and genetic engineering. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (BIOLOGY 121 or 250), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Biology (BIOLOGY) 295
Undergraduate Research In Biology
Undergraduate Research in Biology allows the student to explore a topic of interest under the supervision of a faculty member. The course may include literature readings, research methodologies, attending seminars and professional meetings, engaging in independent research project/study, applying for scholarships, formal presentations or other activities deemed appropriate. In summary, this course provides students firsthand research experience and it encourages them to explore opportunities at upper levels to further develop their research skills. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: not more than an accumulated six credit hours will be counted toward graduation.
Grade of C or better in BIOLOGY 121 or 122 or Consent of Department Chairperson.
1-4 Lecture Hours. 2-4 Laboratory Hours. 2-6 Credit Hours.
Offered At: MX
Repeatable: Yes, up to 4 times

Biology (BIOLOGY) 299
Special Topics In Biology
Special topics in biology and biotechnology will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-5 Lecture Hours. 0-2 Laboratory Hours. 1-6 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
Repeatable: Yes, up to 4 times

Biotechnology (BIOTECH)

Biotechnology (BIOTECH) 201
Survey of Biotechnology
This course will serve to introduce students to modern biotechnology which is based on recent developments in molecular biology, especially those in genetic engineering and bioengineering. Students will explore the diversity of the field focusing on such areas as medicine, biohazard, bioremediation, biocatalysis, biosafety, agriculture, forensics, quality control and assurance, testing, regulation, law and policy, intellectual property, proteomics, pharmacogenomics, nutrition, and product development. This course will incorporate speakers that are representative of specific areas in biotechnology. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Biotechnology program.
2 Lecture hours. 2 Credit Hours.
Offered At: HW, TR

Biotechnology (BIOTECH) 211
Laboratory Math for Biotechnology
This course introduces mathematical tools that are used in the biotechnology laboratory. Students apply mathematical concepts to solve problems such as calculating quantities of chemicals required to make solutions, graphing and interpreting data, and calibrating instruments. Basic statistical and algebraic concepts are covered. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Biotechnology program.
2 Lecture hours. 2 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 212
Basic Laboratory Skills and Safety
This course covers basic concepts and techniques necessary to work effectively in a biotechnology lab. The importance of quality regulations and standards and the role of the technician in producing quality results are emphasized. Laboratory math is introduced and applied. Students learn basic techniques including measuring, weighing, mixing solutions, following, and writing procedures, keeping records, making observations, and using instrument manuals and catalogues. Principles of metrology (measurement) are introduced and students practice using, calibrating, and verifying the performance of instruments. Students survey potential laboratory hazards and safety procedures. The course covers regulation of chemicals: flammable, reactive, corrosive, and toxic substances. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Biotechnology program.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 220
Cell Culture Laboratory
Covers the basic techniques of plant and animal cell culture. Plant unit includes media preparation isolation of explants and establishment of callus from suspension cultures, growth factor bioassays, regeneration of whole plants from tissue and plant genetic engineering techniques. Mammalian cell units include media preparation, maintenance of cultured cells, transfection of cultured cells, cloning and ELISA assays and monoclonal antibody production. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121 and MCROBIO 233
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 225
Biotechnology Techniques 1
Introduces students to the basic concepts of spectrophotometry, biomolecular assays and separation techniques. Students' complete lab work using a variety of laboratory methods including paper, thin layer, gas and HPLC chromatography, spectrophotometry, and several biomolecular assays. Students learn to analyze and interpret their results and practice documentation and communication of their results. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121 and CHEM 203 and BIOTECH 212 or consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 230
Molecular Biology Techniques
The course covers basic concepts in molecular biology. The course will emphasize “classical” molecular biology techniques (DNA extraction, Gel electrophoresis, restriction enzyme analysis, cloning, Southern blotting and Western blotting). The course will also cover Polymerase Chain Reaction (PCR), bioinformatics, and will explore applications that are used to view and analyze the structure of DNA and proteins. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121, CHEM 203, and BIOTECH 212 or consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 235
Biotechnology Techniques 2
This course covers intermediate concepts in molecular biology emphasizing topics that are important in the biotechnology industry. This course will explore cell and gene therapy techniques, biofuels production and production of biopharmaceutical products and devices. Writing assignments, as appropriate to the discipline, are part of the course
Grade of C or better in BIOTECH 225 and BIOTECH 230 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 245
Bioinformatics for Biotechnology
This course will cover a range of bioinformatics research and concepts using a case-based and problem-solving approach. This course will consist of a combined lecture and computer laboratory format to provide hands on approach in applying bioinformatics to a variety of research problems include genome analysis, DNA microanalysis, phylogenetics, three-dimensional structure prediction and proteomics. Special attention will be paid to ethical, legal, and personal concerns in the practice of bioinformatics. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOTECH 225, BIOTECH 230, and CoRequisite CIS 103 (Python) or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 262
Biomanufacturing
The production of biopharmaceutical products by bacteria, yeast, and eukaryotic cell lines constitutes what is referred to as Biomanufacturing. Biomanufacturing of the products is a multi-step process which involves the use of bioreactors, flow cytometers, cell counters and many other instruments. In this course students will learn various biomanufacturing protocols and the theoretical background to analyze their results and problem solve errors that arise. Writing assignments, as appropriate to the discipline, are part of the course. Topical coverage may change based on evolving industry standards and needs.
Grade of C or better in BIOTECH 220 and BIOTECH 230, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: TR

Biotechnology (BIOTECH) 299
Internship in Biotechnology
This course involves a field experience at an off-campus/on-campus site guided by a faculty advisor and a site supervisor (on campus - one faculty member may serve both roles). Sites include industry/company laboratories and university laboratories or on campus and is based on availability.
Grade of C or better in Biotech 201, Biotech 211, Biotech 212, Bio. 121, and Micro. 233 or Consent of Department Chairperson.
19.5 Laboratory hours. 0.5 Lecture hours. 2 Credit Hours.
Offered At: TR

Botany (BOTANY)

Botany (BOTANY) 201
General Botany I
General biological principles applied to anatomy, physiology, reproduction, and heredity of seed plants. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, OH, TR, WR
IAI: L1 901L GE: Life Sciences

Business (BUSINES)

Business (BUSINES) 111
Introduction To Business
Survey of modern US business, analyzing organization and types of businesses, major business functions, business and the environment, roles played by business and consumers in the economy and various economic systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 141
Business Mathematics
Review of basic arithmetic principles, application of arithmetic operations to business forms and to analysis and solution of problems of percentage, markup and markdown, discounts, interest, prorating, life and property insurance, taxation, and payrolls. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 156
Warehousing Workforce Skills
This course provides training in the workplace practices that contribute to success on the job. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: OH

Business (BUSINES) 158
Warehousing and Distribution Process
This course provides learners with the knowledge and core skills associated with warehousing and distribution. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SCML 155 and BUSINES 156.
2.5 Lecture hours. 2.5 Credit Hours.
Offered At: OH

Business (BUSINES) 159
Warehousing Technology Skills
Warehousing technology skills are those practices important to working in a technical environment. This course covers the use of scanners and data applications along with the understanding of industrial controls and computers and automation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SCML 155 and BUSINES 156.
2 Lecture hours. 2 Credit Hours.
Offered At: OH

Business (BUSINES) 161
Prin Of Bank Operations
This course covers the fundamentals of bank functions in a descriptive fashion. Topics include banks and the monetary system, the relationship of banks to depositors, regulations, and examinations. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 180
Fundamentals Of Accounting
This course emphasizes an understanding of basic accounting principles and other business concepts as they apply to the reporting of financial data and other economic events of a business enterprise. Emphasis is on recording, analyzing, and interpreting historical data and showing its effect on the business financially. Writing assignments, as appropriate to the discipline, the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR

Business (BUSINES) 181
Financial Accounting
This course presents accounting as an information system that produces summary financial statements, primarily for users external to a business or other enterprise. Students study the forms of business organization and the common transactions entered into by businesses. The emphasis is on understanding and applying basic accounting principles and other concepts that guide the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. How to analyze and interpret historical financial statements as well as the limitations of using these statements in making forward-looking business decisions are included. The primary content emphasis will be accounting for current assets and liabilities, long-term assets and liabilities, corporations, cash flow statements and financial statement analysis. Writing assignments, as appropriate to the discipline, are part of the course.
BUSINES 111 or BUSINES 141 or MATH 98 or higher; or concurrent enrollment in BUSINES 141; or placement test; or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: BUS 903

Business (BUSINES) 182
Managerial Accounting
This course presents accounting as a system of producing information for use in internally managing a business. The course emphasizes the identification, accumulation and interpretation of information for planning, controlling and evaluating the performance of the separate components of a business. Included is the identification and measurement of the costs of producing goods or services and how to analyze and control these costs. Decision models commonly used in making specific short-term and long-term business decisions are included. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 181, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: BUS 904

Business (BUSINES) 183
Payroll Accounting
A comprehensive course that prepares students for the functions of payroll within an organization. Introduces principles, procedures, and terminology for business applications of payroll methods. Emphasizes federal and state payroll records and forms. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (BUSINES 178 or BUSINES 181), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, TR

Business (BUSINES) 203
Intro Cost Accounting
General accounting principles applied to factory operations. Includes methods of finding costs of specific orders, lots and processes, and basis of allocating overhead expenses. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 181 or BUSINES 182
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 204
Computer Applications Intermediate Accounting
Utilizes a computer to perform major accounting tasks such as recording entries, posting to ledgers, generation of trial balances and financial statements, as well as special reports, all encountered in Business 205. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in BUSINES 205.
1 Lecture hours. 1 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 205
Intermediate Accounting
Application of funds, analysis of working capital, investments, inventories, amortization and depreciation, and cost expirations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 182 and concurrent enrollment in BUSINES 204.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 206
Auditing
Includes external balance-sheet audits, recent developments in techniques of auditing cash, receivables, inventories, investments, fixed assets, and liabilities. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 205 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 207
Intermediate Accounting II
Accounting for the rights of creditors and stockholders; principles of fund accounting; statement analysis; special problems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 205 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Business (BUSINES) 208
Federal Income Tax
Study of the principles of the Internal Revenue Code, practical application of tax rules to the preparation of returns, application of accounting rules to tax matters. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 182 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 211
Business Law I
Laws of business transactions, including contracts, agency, employment and partnerships, and study of the Uniform Commercial Code. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 212
Business Law II
Continues study of laws covering corporations, negotiable instruments, sales, real estate, and bailments. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR, WR

Business (BUSINES) 213
Data Visualization and Presentation for Business
This course provides a foundation for technologies for technologies and functions of spreadsheets, presentations, and Business Intelligence. The course introduces and expands students understanding of presentation and spreadsheet software through experimentation, critical thought, and personalization. Concepts introduced in this course aim to develop an understanding of the different types of business data, various analytical approaches, and application of these approaches to solve business problems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 214
The Legal & Social Environment of Business
A study of the legal and social environment of business with emphasis on business ethics and corporate social responsibilities. Areas of concentration include governmental regulation of business, securities law, consumer protection law, labor law and employment law. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 215
Corporate and Entity Federal Income Tax
Study of federal income taxation of business organizations, including corporations, partnerships, limited liability companies (LLC), limited liability partnerships (LLP), limited liability limited partnership (LLLP), low-cost limited companies (L3C), and estates. Taxation of partnerships, with emphasis on the tax laws related to the formations, operations, allocations, distributions, liquidations, and sales/exchanges of partnership interests. Federal estates and gift tax laws with emphasis on the preparation of related tax returns. Ethics and research as appropriate to the discipline are integrated in the course.Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 208.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 216
Entrepreneurship
Entrepreneurial skills, organization, promotion and management in self-employment or administration in occupations and organizations; research and discussions with successful owners and managers in the business community. Students receive practice in planning, decision-making and self-evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 217
Nonprofit Accounting
Financial transaction analysis and recording system; budget preparation and control; concepts and principles underlying the financial reports of nonprofit organizations in accordance with generally accepted accounting principles (GAAP) and Government Accounting Standards Board (GASB). Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 181, and Grade of C or better or concurrent enrollment in BUSINES 203 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 218
Advanced Accounting
Financial accounting theory for business combinations, presentation of consolidated financial statements, international transactions and investments, fund accounting, foreign exchange and derivatives, investments and partnership accounting. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 205 or BUSINES 207 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 221
Insurance
Preparation for the agents or brokers licensing examination. Includes life and casualty insurance, automobile, fire, health and accident, and worker compensation. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW

Business (BUSINES) 230
E-Business Marketing
Explores resources, knowledge, skills, practices and techniques necessary to conduct business online. Explores nature and impact of e-commerce on business and business operation, resources required and available, customer relationship management, ordering systems, end-to-end marketing and performance and control systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111 or CIS 120 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, TR

Business (BUSINES) 231
Marketing
Examines the functions and objectives of marketing. Includes flow of industrial and consumer goods through the marketing system, and the role of the consumer, the product, the market, the pricing policies, promotion and distribution methods. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 232
Fundamentals of International Business
Analysis of problems stemming from the movement of goods, services, human resources, technology, finance, and ownership across national boundaries. Direct focus on the development of management skills in handling problems of multinational business. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW

Business (BUSINES) 236
Advertising
Study of basic functions, principles, and techniques of advertising, including the role of advertising in the marketing system. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR
IAI: MC 912

Business (BUSINES) 237
Selling
Factors of successful selling of goods or ideas; buying motives, sales psychology, customer approach, and sales techniques. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR

Business (BUSINES) 241
Introduction To Finance
Surveys methods of financing business enterprises and their relationships to personal and company investment policies. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 181, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 244
Personal Finance
Personal investment programs including the sources and uses of investment information. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

Business (BUSINES) 249
Independent Research
Independent Research and analysis on topic chosen with the faculty consent, requires a study plan, a paper of length and specification required by the faculty member. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: HW

Business (BUSINES) 250
Computerized Accounting Systems
Computerized Accounting focuses on exposing the student to various computerized accounting systems and how these systems accomplish the goals of accounting information system of a business entity. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 181, or CIS 120 or equivalent, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Business (BUSINES) 258
Small Business
Organization and operation of small-scale retail, trading, service, or manufacturing business. Problems of location, financing, labor, accounting and production, taxes, and insurance. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR

Business (BUSINES) 259
Introduction to Project Management
This course develops a foundation of concepts and solutions that supports the planning, scheduling, controlling, resource allocation, and performance measurement activities required for successful completion of a project. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and Grade of C or better in BUSINES 111
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 260
Digital Marketing and Social Media
This Digital Marketing and Social media course will equip students with the knowledge to ethically and effectively utilize Digital media tools to establish a broader market presence for new and existing businesses.
Grade of C or better in BUSINES 111 and BUSINES 231.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 263
Property and Liability Insurance
A survey of modern insurance companies, analyzing different types of Insurers, major insurance functions and their impact on consumers, businesses, and worldwide financial markets. Also, the specific interaction between insurance companies, banks, businesses, consumers, the Federal government and their combined impact on the US and World economies. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 264
Personal Insurance
A survey of personal insurance carriers which includes their product lines, day-to-day functions, an analysis of employment trends and their impact on consumers, businesses, and financial markets. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 265
Commercial Insurance
A survey of commercial insurance carriers which includes their product lines, day-to-day functions, employment trends and their impact on businesses and financial markets. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 269
Principles Of Management
Analysis of major functions and principles of management; emphasis on supervisory and operating levels of management; theories, policy-making, effective communications and art of decision-making. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 270
Office Management
Application of management principles to planning, organization, and controlling of office work. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Business (BUSINES) 271
Human Resources Management
Employment techniques, wages and hours, job evaluation, training, employee ratings, collective bargaining, employment counseling and collateral benefits, such as pensions and fringe benefits. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Business (BUSINES) 272
Sales Management
Planning of sales efforts; management of sales and services; human resources, and controlling sales operations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 111 and BUSINES 237, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 273
Organizational Behavior
This course examines the theories and concepts related to human behavior in organizations. Topics include individual behavior, group behavior, and organizational structure and culture. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 269 or BUSINES 271
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 274
Industrial Management
Characteristics of industrial enterprise, problems of materials procurement, plant organization and layout; labor relations and human resources policies, efficiency techniques, automation, and production development. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Business (BUSINES) 278
Compensation & Benefits Administration
This course examines the design and implementation of an organization's compensation systems. Topics include job analysis, base pay structure, incentives, and performance measurements. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 271 or consent of Department Chairperson
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 279
Human Resources Planning & Staffing
This course examines the functions and objectives of human resources planning and staffing. Includes staffing models and strategies, recruitment, selection, employment and retention. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BUSINES 271 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 281
Corporate Organizations: Understanding Business Processes
Prepares students for their first professional job in a corporate setting by emphasizing technical business office skills, expected corporate behaviors, and soft skills essential for career success. Exercises and activities help students immediately apply concepts and materials for transitioning from the classroom to a corporate/work environment. Tools for professional success–workplace skills and career planning are emphasized throughout. Students will develop practical human relations skills with a primary emphasis on technical office skills and expected workplace behaviors. In addition, the course provides career planning tools that focus on job search strategies, résumé package development, and interview techniques. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business (BUSINES) 284
Business Communications
Study of communication (including motivation, perception, language, distortions, organizations, listening) and its role in the administrative process; patterns of mis-communications (such as by-passing, deception, generalizations, association, labeling) are examined for better understanding of communication process and to improve organizational environment; consideration given to psychological impact of various communications media. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH

Business (BUSINES) 291
Leadership
This course examines the process by which an individual exerts influence over other individuals and inspires, motivates, and directs their activities to help achieve group or organizational goals. Topics include power and influence, participative leadership, leadership theories, and managerial traits and skills. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in BUSINES 269 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Business (BUSINES) 299
Special Topics
Seminar on a special topic or current issue in one or more business fields. Topic should be listed on the student's permanent academic record. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Business and CommercialTechTC1 (330BSCM)

Business and CommercialTechTC1 (330BSCM) 512
Basic Keyboarding III
Development of greater control and speed; typing of short simple business letters; and word division. Writing assignments, as appropriate to the discipline, are part of the course.
3-12 Laboratory Hours. 1-4 Credit Hours.
Offered At: KK

Business and CommercialTechTC1 (330BSCM) 532
Basic Computer Technology
The course introduces management principles and office technology. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 1-2 Credit Hours.
Offered At: KK

CAD Technology (CAD TEC)

CAD Technology (CAD TEC) 130
CAD Technology I
Application of pictorial techniques used in preparation of industrial illustrations; study of oblique, axonometric, perspective and exploded views; methods and techniques of shading, commercial media and reproduction processes. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 100 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

CAD Technology (CAD TEC) 170
CAD Technology II
Introduction to programming techniques using computer-aided design (CAD) systems; use of basic command structures, keyboard and menu tablets; text dimensioning and pen and layer selection. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 100, or ENGR 110, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR
Repeatable: Yes, up to 1 times

CAD Technology (CAD TEC) 171
CAD Technology III
Intermediate programming techniques using computer-aided design (CAD) systems; techniques of file handling, archiving and plotting; drawing manipulations of translation and rotation to prepare for CAD system operation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ARCHITC 170, or CAD TEC 170, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

CAD Technology (CAD TEC) 172
CAD Technology IV
Advanced planning concepts and designs using computer-aided design systems; techniques of file handling, archiving, and plotting; drawing manipulations of translation and rotation to prepare for CAD system operation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CAD TEC 171, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Cannabis (CANBS)

Cannabis (CANBS) 110
Introduction to Cannabis
Course will discuss the basic life cycle of the plant/plant properties, and the natural origins and evolution of cannabis. Course will also include topics related to how cannabis influenced commercial, medical, ritual and religious practices in culture. Writing assignments, as appropriate are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 111
Cannabis and the Law
The course will discuss current policy parameters, legal responsibilities and ethical issues of the cannabis industry. Writing assignments, as appropriate are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 112
Dispensary Operations
Dispensary Operations including the logistical concepts that relate to inventory control, distribution, packaging, transfer, and auditing. It will also cover medicinal marijuana dispensing, OSHA 10hr General Industry and Responsible Vendor training. Writing assignments, as appropriate are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: OH

Cannabis (CANBS) 113
Entering the Cannabis Industry
Training in professional skills required in the cannabis industry, based on the provisions stipulated by the Illinois Department of Financial and Professional Regulation (IDFPR). Instruction in the following skills: industry software, emotional intelligence, resume development, cover letter writing, job searching, networking, interviewing, and portfolio development. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 114
Restorative Justice in Cannabis
Exploration of the inequitable history of cannabis prohibition and harms done to communities over time. Examination of restorative justice practices for empowering early career cannabis professionals. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 115
Cannabis Quality and Compliance
The basics of quality assurance and compliance in the cannabis industry, including an introduction to analytical methods for quality control. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent registration in CANBS 110 (Introduction to Cannabis) and HORTIC 104 (Plant Propagation), or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 201
Cannabis Processing
Examination of the cultivation, harvesting, processing, refinement, and product analysis methods for cannabis, including marijuana and hemp. An overview of chemical extraction, distillation, and purification techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CANBS 110 (Introduction to Cannabis).
2 Laboratory hours. 5 Lecture hours. 6 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 202
Hemp Horticulture and Processing
Introduction to hemp as an agronomic and horticultural crop. Agronomic principles pertaining to industrial hemp as a field crop are explored, including the cultivation, management, harvesting, and environmental impact of hemp grown for fiber and seed production. Relevant cannabis regulations, business models, and social equity programs will be explored. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CANBS 110 (Introduction to Cannabis).
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 203
Introduction to Medicinal Cannabis
History of medicinal and cultural practices of cannabis and the modern use of the plant from a clinical perspective. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CANBS 110 (Introduction to Cannabis).
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Cannabis (CANBS) 204
Cannabis Science
This course will review the chemical compounds of the cannabis plant. Review of the mechanisms of cannabis molecular compounds, specifically, cannabinoids, terpenes, and flavonoids structure and function in the cannabis plant and their interaction with the human endocannabinoid system. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CANBS 110 (Introduction to Cannabis).
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Chemistry (CHEM)

Chemistry (CHEM) 100
Basic Chem Calculations
Arithmetical and algebraic operations as used in general chemical calculations, scientific notation, metric system of measurement and problem-solving techniques employed in general chemistry calculations. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in CHEM 121, Eligibility for ENGLISH 101, Eligibility for MATH 118 or higher or consent of Department Chairperson.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: HW, MX, TR

Chemistry (CHEM) 121
Basic Chemistry I
Principles of general inorganic chemistry, including properties of matter, dimensional analysis, fundamentals of stoichiometry, interpretation of the periodic table, nomenclature and introduction to solution chemistry and commonly used concentration units. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and eligibility for MATH 118 or higher or Consent of Department Chairperson.
5 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: P1 902L GE: Physical Sciences

Chemistry (CHEM) 201
General Chemistry I
Topics include the periodic table of the elements, atomic structure, basic concepts of quantum theory, bonding, stoichiometry of compounds and reactions, thermo-chemistry, the gaseous state, basic concepts of the liquid and solid states, solutions, acids, and bases. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 140 or higher and Grade of C or better in CHEM 121 or one year of high school chemistry, or Consent of Department Chairperson.
4 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CHM 911,P1 902L GE: Physical Sciences

Chemistry (CHEM) 203
General Chemistry II
Topics include equilibrium, acid-base equilibria, solubility equilibria, kinetics, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry and descriptive topics in organic chemistry. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 201, or Consent of Department Chairperson.
4 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CHM 912

Chemistry (CHEM) 204
Quantitative Analysis
Gravimetric, volumetric, and calorimetric procedures; basic techniques of quantitative measurement applied to the determination of percentage composition, equilibrium constants and the reliability of data. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 203
2 Lecture Hours. 6 Laboratory Hours. 5 Credit Hours.
Offered At: DA

Chemistry (CHEM) 205
Organic Chemistry I
Fundamentals of organic chemistry, orbital and structural theory, aliphatic and aromatic hydrocarbons, alkyl halides, structural isomerism, introduction to functional groups, nomenclature, stereochemistry, reaction mechanisms, resonance theory, and spectroscopy. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 203 or Consent of Department Chairperson.
4 Lecture Hours. 4 Laboratory Hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CHM 913

Chemistry (CHEM) 207
Organic Chemistry II
Continuation of study of organic chemistry: alcohols, aldehydes and ketones, carboxylic acids, functional derivatives of carboxylic acids, O, N and S containing compounds, heterocyclic compounds, spectroscopy; laboratory emphasis on organic synthesis and spectroscopic analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 205, or Consent of Department Chairperson.
4 Lecture Hours. 4 Laboratory Hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CHM 914

Chemistry (CHEM) 212
Survey of Organic & Biochemistry
Survey of organic chemistry, including nomenclature and reactions of major functional groups essential to biochemistry. An introduction to the structure and function of biomolecules, and the metabolism of proteins, lipids, and carbohydrates. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 201 or Consent of Department Chairperson.
3 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, TR, WR

Chemistry (CHEM) 217
Intro Instrumental Analysis
Use of modern optical and electrical methods in chemical analysis: filter photometers; visible, ultraviolet and infrared spectrophotometer; gas chromatographs, radioactive counters, and pH meters; potentiometers; refractometers; polarimeters; and polarographs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (CHEM 201 and CHEM 205), or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: TR

Chemistry (CHEM) 219
Chemistry for Education I: Matter & Structure
This course is designed to provide educators with a fundamental understanding of matters, its structure and its changes from both a qualitative and quantitative perspective. Physical properties, chemical interactions, bond, and the atomic structure of matter will be explored and mapped to state science education standards. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: TR

Chemistry (CHEM) 295
Independent Research in Chemistry I
Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, or Consent of Department Chairperson
1-3 Lecture Hours. 3-18 Laboratory Hours. 1-6 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

Chemistry (CHEM) 296
Independent Research in Chemistry II
Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in Chem 295, Eligibility for English 101 or consent of Department Chairperson
1-3 Lecture Hours. 3-18 Laboratory Hours. 1-6 Credit Hours.
Offered At: HW, TR, WR

Chemistry (CHEM) 297
Independent Research in Chem III
Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 296, Eligibility for ENGLISH 101 or or Consent of Department Chairperson.
1-3 Lecture Hours. 3-18 Laboratory Hours. 1-6 Credit Hours.
Offered At: HW, TR

Chemistry (CHEM) 298
Independent Research in Chemistry IV
Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 297, Eligibility for ENGLISH 101 or Consent of Department Chairperson.
1-3 Lecture Hours. 3-18 Laboratory Hours. 1-6 Credit Hours.
Offered At: HW, TR

Chemistry (CHEM) 299
Independent Research in Chemistry V
Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 298 or Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: HW

Child Development (CHLD DV)

Child Development (CHLD DV) 100
Critical Readings in Child Development
Prepares students to read critically in the field of human development. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Child Development (CHLD DV) 101
Human Growth & Development I
This course provides a foundation in theory and principles of human development, from the pre-natal period to middle childhood, including an in-depth study of physical, socioemotional, cognitive and language development, including children's play and aesthetic development. The socio-cultural context, such as gender, family, race, ethnicity, language, ability, socioeconomic status, religion/spirituality, and society, will be explored with an emphasis on how context impacts child development. Three hours observing young children, ranging in age from birth to age eight, are required. Writing assignments and presentations as appropriate to the discipline are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
4 Lecture Hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR
IAI: ECE 912

Child Development (CHLD DV) 102
Human Growth & Development II
This course continues the examination of human growth and development introduced in Child Development 101. It explores developmental milestones in adolescence through all stages of adulthood to the end of life. The course includes an in-depth study of developmental concepts across all domains of development. The sociocultural context, such as gender, family, race, ethnicity, language, ability, socioeconomic status, religion/spirituality, and society, is explored with an emphasis on how context impacts development. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101, or Consent of Department Chairperson
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 107
Health Safety And Nutrition
This introductory course explores early childhood professional practices and policies that promote the physical and mental health and safety of young children (birth to age eight) as well as high quality nutrition and food experiences in early childhood education. The course has a dual emphasis on the health, safety, and nutrition of young children, and of the college students enrolled in the course. Lifestyle, preventative health, community resources, and emergency response procedures are examined. The course investigates cultural beliefs and their impact on families' practices and decision making related to health, safety, and nutrition. It explores ethical and legal responsibilities of adults in protecting the emotional and physical well-being of young children. Three hours observing young children, ranging in age from birth to age eight, are required. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 109
Language & Literacy Development in Early Childhood
This course is focused on providing students with a comprehensive understanding of language and literacy development for children, ages birth to age eight. It dives deep into the complex relationship between language, literacy, and other areas of learning and development. It provides practical strategies for planning and implementing developmentally appropriate activities that promote language acquisition and literacy for young children. Additionally, the course illuminates the impact of the interrelationship of physical, cognitive, socioemotional, and linguistic factors on children's development. It equips students with the knowledge and skills to create language and literacy-rich environments that support children's learning and development. The course covers essential aspects of early childhood education including plurilingualism, pluriculturalism, and the complex role language and culture have in shaping children's learning and developmental experiences. Five hours observing young children, ranging in age from birth to age eight, are required. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Completion of CHLD DV 101 & CHLD DV 120 with grade of "C" or better or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 120
Intro To Early Childhood Education Group Care
This introductory course is designed to familiarize students with the historic roots and philosophical foundations of early childhood care and education. The course includes exploring different types of early childhood programs, the role of the early childhood professional, and the opportunity for students to examine their own personal qualities in relation to the profession's expectations for early childhood educators. The course will include an examination of the role of culture in child development and anti-biased practices in early childhood education. Finally, the course defines the profession and explores ethics, including the NAEYC Code of Ethical Conduct. Five hours of observing young children in an early childhood education setting are required for the course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 130
Special Topics in Child Development
Study of a single topic in child development that would enhance the student's ability to support children and the families of young children. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted toward graduation.
Grade of C or better in CHLD DV 101 or Consent of Department Chairperson.
1 Lecture hours. 1 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 4 times

Child Development (CHLD DV) 141
Activity Programming
Recreational and creative activities as factors which change patterns of behavior in children. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Child Development (CHLD DV) 142
Methods & Materials for Infant Toddler Care
This course acquaints prospective early childhood educators with the domains and milestones of child development from birth to age three as well as various strategies for supporting infants, toddlers and their families in center-based and home-based early childhood settings. There is an emphasis on the importance of play and developmentally, culturally and linguistically appropriate materials as well as responsive practices for supporting infants, toddlers, and their families. The course stresses the importance of building an awareness of one's own culture, personal beliefs, values, and biases and how early childhood educators have a responsibility to reflect on their ongoing commitment to cultural responsivity and equity-based practices. This course requires five observation hours in an infant, toddler early childhood setting. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 143
Science & Math for Young Children
This course explores the relationship of inquiry and play with science and mathematics content areas in early childhood education. Planning for a variety of developmentally appropriate experiences in mathematics and scientific inquiry are explored as well as an examination of the role of the early childhood environment in supporting development. The course uses observation and documentation to emphasize science and mathematics learning and development in diverse early childhood settings. The course includes student reflections about their personal experiences with STEM (science, technology, engineering and mathematics). Five hours observing young children, ranging in age from birth to age eight, are required. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Completion of CHLD DV 101 & CHLD DV 120 with grade of "C" or better or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 149
Creative Activities For Young Children
This introductory course explores the importance of creative activities in the early childhood curriculum and the relationship of creativity to physical, cognitive, socioemotional, and language development. Planning for a variety of developmentally appropriate, creative experiences that allow young children to play with art, music, movement, literature, and drama is explored as well as an examination of the role of the early childhood environment on creative expression. This course emphasizes the importance of the process of creative expression and provides diverse, creative experiences for adult students so they may understand the arts as a means of communicating ideas, feelings, and cultural expression. Five hours observing young children in an early childhood education setting are required for the course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 201
Observation, Assessment, & Documentation to Support Young Children & Families
This course provides an examination of developmentally appropriate techniques for observing, documenting, and assessing the development of young children to inform curriculum planning and promote positive teaching strategies. The course emphasizes a strengths-based approach to assessment that includes building partnerships with families and professional colleagues. Self-reflection is a major component of the course. Students will also critically examine observation and assessment biases and unpack the importance of objectivity when working with young children from diverse backgrounds. Ten observation hours of young children in an early childhood education setting are required for the course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Completion of CHLD DV 101, CHLD DV 107, CHLD DV 120, CHLD DV 149, CHLD DV 262 with Grade of C or better, Completion with a grade of C or better or concurrent enrollment in CHLD DV 109, CHLD DV 143, or consent of Department Chairperson
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 205
Development of Exceptional Child
This course explores federal, state, and local disability rights legislation, anti-discrimination laws, and the history of specialized education. It includes a review of typical and atypical development across all developmental domains with consideration of various contextual factors (e.g. family structure, culture, language(s), socioeconomic status, etc.). The course includes an examination of screening tools and ethical assessment practices as well as the design of developmentally and ability appropriate learning activities that are responsive to diverse sociocultural contexts of children and their families. Students will reflect on their own biases and develop strategies for intentional practice and advocacy. Five observation hours of young children in an inclusive early childhood education setting are required for the course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 225
Supervision of Exceptional Child
Techniques in handling and communicating with the deaf, blind, developmentally delayed, and physically challenged child. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 205.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Child Development (CHLD DV) 228
Principles of Child Care Practice
Role of the child care worker in group/residential settings; primary objectives and goals; re-examination of child rearing responsibilities in light of treatment goals. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Child Development (CHLD DV) 229
Practicum In Residential Child Care
Twenty hours per week of professional, and supervised training in a Child Care Treatment Program; includes two-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (CHLD DV 102, and CHLD DV 201, and CHLD DV 228), and SOC SER 212, or Consent of Department Chairperson.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: KK

Child Development (CHLD DV) 230
Introduction to Early Intervention
The course examines Early Intervention (EI) as a system of services for families to assist them in supporting their young child's learning and development (birth to age three). The course emphasizes the importance of building collaborative partnerships between families/caregivers and EI professionals to develop and maintain an Individualized Family Service Plan (IFSP). The course explores strengths-based, culturally, and linguistically responsive and affirming EI practices. Students will have opportunities to reflect on their personal biases and to practice advocating for families and their rights within the EI process. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, TR

Child Development (CHLD DV) 248
Principles & Practice of Infant & Toddler Care
This course provides opportunities to plan for developmentally appropriate, evidence-based, and culturally responsive care and education for young children, from birth to age three, using a comprehensive framework of best practices, historical and philosophical underpinnings, personal reflections, and environmental design strategies. Emphasis is placed on the importance of building positive, reciprocal relationships and creating an environment conducive to exploration and play to support the physical, socioemotional, cognitive, language, including plurilingual learning and development of infants and toddlers. This course focuses on the student developing professionally within the Early Childhood Education field, with an emphasis on ethical conduct specific to infant and toddler care. This course requires ten observation hours in an infant, toddler early childhood setting. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 142 or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 258
Principles of Early Childhood Care and Education
This course examines current research on child development from birth to age eight and emphasizes the multiple contexts in which young children develop and learn. It provides opportunities to plan appropriate, play-based activities for young children that support physical, cognitive and social-emotional developmental domains with an emphasis on designing early childhood environments that can meet the needs of diverse children and are conducive to supporting cultural, linguistic and abilities diversity. The course prioritizes professionalism in the early childhood education field, including ethics, guidelines, standards and the implementation of the NAEYC Code of Ethical Conduct. Students will compose an updated philosophy of early care and education. Twenty hours observing young children, ranging in age from birth to age eight, are required. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Completion of CHLD DV 101, CHLD DV 107, CHLD DV 120, CHLD DV 149, CHLD DV 262 with Grade of C or better, Completion with a grade of C or better or concurrent enrollment in CHLD DV 109, CHLD DV 143, CHLD DV 201, or consent of Department Chairperson
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 259
Practicum In Early Childhood Education
In this capstone course, students spend a minimum of two hundred and forty field experience internship hours in an early childhood program under the direct mentorship of an on#site supervisor, field supervision by the course instructor, and weekly two¬#hour seminar discussions with classmates. Students are expected to apply what they have learned in all previous Child Development courses including engaging in positive interactions with children, families and early childhood educators, planning developmentally appropriate and culturally responsive activities, and using observation and analyses techniques and assessment tools. Emphasis is placed on professionalism, ethics, and guidelines, including the NAEYC Professional Standards, Competencies for Early Childhood Educators and Code of Ethical Conduct. Practicum students will be expected to uphold professional and ethical guidelines. Two hundred forty teaching internship hours with on#site supervision in an early childhood education setting are required for this course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Completion of CHLD DV 101, CHLD DV 107, CHLD DV 109, CHLD DV 120, CHLD DV 143, CHLD DV 149, CHLD DV 201, CHLD DV 258, and CHLD DV 262 with a grade of "C" or better. To register for this course, all students must have Department Chairperson approval.
2 Lecture Hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Child Development (CHLD DV) 260
Administration and Supervision of Early Childhood Settings
This course provides opportunities to develop specialized knowledge and skills for serving in an administrative role in early childhood settings such as center-based programs, Head Start, and family childcare programs. The course emphasizes developing leadership skills and a theoretical foundation and practical applications in the daily administrative role in early childhood education. Five hours in an early childhood setting (birth to age eight) to observe all aspects of the early childhood environment, including administrative duties, are required. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR

Child Development (CHLD DV) 262
Child, Family & Community Relations
This course explores the importance of building positive relationships between young children, their families, the community, and the early childhood setting. It examines issues of diversity, pluriculturalism, and culturally responsive approaches to working with young children, their families, and the community as well as current policies and practices that influence families. This course promotes self-reflection, cross cultural communication and sensitivity to cultural, linguistic, and abilities diversity. 3 hours observing young children in an early childhood education setting are required for the course. Writing assignments and presentations, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture Hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR
HD Course

Child Development (CHLD DV) 269
Practicum in School Age Child Care
In this capstone course, students spend a minimum of 250 student teaching hours in a school-age program under the direct mentorship of an on-site supervisor, field supervision by the course instructor, and weekly 2-hour seminar discussions with classmates. Students are expected to apply what they have learned in all previous CD courses including: engaging in positive interactions with young children, planning developmentally appropriate activities, and using appropriate assessment techniques. Students will uphold professional and ethical guidelines. Students will design and revise a Child Development Portfolio compiled of artifacts from their previous coursework and other professional experiences. An emphasis is placed on the NAEYC Standards for Professional Preparation. 250 student teaching hours with on-site supervision in an early childhood education setting are required for this course. Writing assignments and oral presentations, as appropriate to the discipline, are part of the course.Students spend 20 hours a week, under supervision, working with children in a school-child care setting; 17 weeks with a 2 hour seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: HW

Child Development (CHLD DV) 299
Special Topics in Child Development/Early Childhood
This course is focused on a special topic or current issue in the field of early childhood care and education. This course requires field experience hours in an early childhood setting. Writing assignments, as appropriate to the discipline, are part of the course
Consent of Department Chairperson.
0.5-3 Lecture Hours. 4 Laboratory Hours. 1-4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR
Repeatable: Yes, up to 4 times

Chinese (CHINESE)

Chinese (CHINESE) 101
Introduction to Chinese
This course introduces the basic elements of Mandarin Chinese that will enable the students to develop communicative language skills, basic conversational skills, as well as grammar and vocabulary knowledge in Chinese. Intensive drills on sound and tones, vocabulary, and sentence patterns in meaningful contexts will be used in order for the students to communicate appropriately and accurately in authentic contexts. The course will introduce students to the diverse culture, history, and social etiquette of China. Writing assignments, as appropriate to the discipline, are part of the course.
ACTFL Writing Proficiency Test (Score 1.00), or Eligibility for ENGLISH 101, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, MX
HD Course

Chinese (CHINESE) 102
Chinese II
This course is designed for students who have acquired some oral proficiency, but lack formal training and literacy. It teaches more advanced grammar rules while reviewing basic ones. Students will learn how to use a bilingual dictionary to assist their reading of essays and short stories. They will learn to write notes, letters, and paragraphs. The course will introduce students to the diverse culture, history, and social etiquette of China. Writing assignments, as appropriate to the discipline, are part of the course.
ACTFL Writing Proficiency Test (Score 2.00), or Grade of C or better in CHINESE 101, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, MX
HD Course

Chinese (CHINESE) 103
Chinese III
This course is designed for students who have acquired some oral proficiency and basic grammar rules of Mandarin Chinese. It will emphasize four skills: speaking, listening, reading, and writing in culturally authentic situations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHINESE 102 or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, MX
HD Course

Chinese (CHINESE) 104
Chinese IV
This course provides intensive work in the use of Mandarin Chinese through listening, speaking, reading, and writing and through continued enhancement of the cultural awareness intrinsic to those four skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHINESE 103 or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, MX
IAI: H1 900 GE: Humanities HD Course

Communication Design (COM DSGN)

Communication Design (COM DSGN) 101
Introduction to Communication Design
Introduction to the communication design industry through the application of industry-standard software and essential skills, concepts, and design techniques. Digital image editing, illustration, page layout and the processes in each will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 102
Website Design I
Basic procedures in preparing website design and production; includes web code techniques, color theory, typography and composing style sheets and photo layout. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 104
Digital Photography
Basic study of the industry and practice of photography using the digital camera. Topics include basic camera operations and techniques, portraits, lighting, and post-production techniques such as editing and retouching. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 132
Publication Design
A study of digital publication design and digital prepress production with emphasis on planning and problem-solving in layout and desktop, desktop publishing, digital imaging, proofing and digital print work. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted towards graduation.
Grade of C or higher in COM DSGN 101 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Communication Design (COM DSGN) 150
Graphic Design I
An introductory course on the foundations, principles and elements of graphic design. Students will utilize industry-standard professional graphics software to explore various concepts in visual communication for both print and electronic media. Industry terminology and practices will be presented with an emphasis on problem-solving and the design process. Students will apply the theories of graphic design to produce various deliverables such as corporate identity, advertising and brochures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COM DSGN 101 and ART 144 or consent of the Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 202
Website Design II
Focus on website design and production; Includes web code techniques, color theory, typography and composing style sheets and photo layout. Explores animation on the web using current web publishing software applications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher in COM DSGN 102 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 212
Motion Graphics I
Basic study of animation using industry-standard vector software to create motion, including animated shorts, information graphics, and multimedia presentations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher in COM DSGN 101 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 213
Motion Graphics II
This course is a continuation of the study of motion graphics with an interest in commercial applications using industry-standard software. Topics include motion graphics principles, design and composition, timing, storyboarding and planning, visual storytelling, sound and music development, and synchronization. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COM DSGN 212 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 224
Digital Typography
This course is designed to familiarize the student with the computer hardware and software application used in the visual communication industry. Emphasis on the study of typography font design, specification, effects and copy fitting. Also, a study of the historical developments of typography from ancient to modern times will be studied. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted towards graduation.
Grade of C or better in COM DSGN 101 and ART 144 or consent of the Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Communication Design (COM DSGN) 250
Graphic Design II
An intermediate course on the principles and elements of graphic design with a focus on three- dimensional design such as packaging and environmental design such as merchandising displays and signage. Students will also be introduced to the concepts of brand development and target marketing for the retail environment. Students will utilize industry-standard professional graphics software to explore appropriate concepts in visual communication. Industry terminology and practices will be presented with an emphasis on problem-solving and the design process. Students will apply the theories of graphic design to produce various deliverables such as packaging, point-of-purchase displays, signage and other 3-dimensional designs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COM DSGN 150 or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Design (COM DSGN) 290
Practicum Internship
This course is designed to provide the student with further academic support while completing the Visual Communications practicum internship to gain experience in the field. On-the-job strategies, furthering student's design education and training, seminars for career development as well as other topics that are career-related will be discussed. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted towards graduation.
Completion of the Communication Design curriculum or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Communication Design (COM DSGN) 298
Design Studio
This capstone class prepares students for the visual communications industry, including the study of design and the design business: sales, marketing, strategic planning, production, estimating, services, studio layouts, staff positions, management and proposal writing. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of the Communication Design curriculum or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Communication Media (CMMEDIA)

Communication Media (CMMEDIA) 163
Film Rhetoric
Introductory film making skills, both camera and editing; film viewing designed to cultivate students' understanding of how films affect them; includes terminology, effects of film on people, how these effects are achieved, and concepts of criticism and advertising. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: TR
IAI: F2 909 GE: Fine Arts

Community Health Care Worker (CHW)

Community Health Care Worker (CHW) 107
Health and the Public
Students will examine both historical and contemporary public health stories focusing on the United States to begin to understand the contexts, systems, professionals, tools and skills associated with the public health enterprise. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 110
Public Health and Global Societies
The course will introduce students to the main concepts of the public health field and the critical links between global health and social and economic development. Students will be presented with an overview of the determinants of health and how health status is measured. Students will also review the burden of disease, risk factors, and key measures to address the burden of disease in cost-effective ways. The course will cover key concepts and frameworks but will be very practical in orientation. The course will be global in coverage but with a focus on low-and-middle income countries and on the health of the poor. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 120
Community and Public Health
This course is designed to introduce students to public health and community health as it relates across different communities and health concerns. Students will learn the history of public health and how to navigate the systems and organizations involved. Topics covered include the distribution of health outcomes with a particular emphasis on health inequities, outbreak investigation, the impact of history, and social determinants of health. Writing Assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Higher and enrollment in the CHW certificate program
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX

Community Health Care Worker (CHW) 121
Introduction to Community Health Work
This course introduces students to the profession of community health work and its role in public health and the healthcare system. Students will learn and practice the core skills and competencies of community health workers. They will gain an understanding of their role, their scope of practice, and the types of services they provide, including how they interact with other health personnel and resources. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Higher and enrollment in the CHW certificate program
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX

Community Health Care Worker (CHW) 125
Nutrition, Movement, and Health Basics
This course will provide students with the information necessary to promote healthy lifestyle modifications and health promotion. Students will gain knowledge about identifying the relationship between nutrition, physical activity, and disease. They will learn approaches to treating disease through diet modification, and inclusion of physical activity to divert the development or progression of disease. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Higher and enrollment in the CHW certificate program
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX

Community Health Care Worker (CHW) 126
Human Development Overview
This course provides students with information on pre-conceptual, prenatal care, fetal development and newborn care. Students will gain an understanding of the various stages of human development and recognize their role in promoting acceptable standards of health care. This course includes information of the important role parents have in the development of children. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHW 121.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 127
Portfolio Development
This course provides students the opportunity to carefully select, purposefully organize their professionally related academic accomplishments. It provides documentation of the student's having met the entry-level competency skill standards for community health workers. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and CHW 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 128
Adult and Senior Health
This course will focus on adult health throughout the early, middle and later stages of adult development and health issues. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and CHW 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 129
Substance Abuse Issues
This course gives the student an overview of what substance abuse is and how to recognize it. Students will become familiar with misuse and abuse of substances ranging from over the counter medications to highly controlled narcotics. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and CHW 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 130
Mental Health Care
This course will provide an overview of mental health care on the community and individual level. Students will cover mental health illnesses, mental health care of various populations, and the social determinants they face. They will learn about the more prevalent mental health illnesses in the U.S. and how to support individuals who are experiencing them. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Higher and enrollment in the CHW certificate program
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX

Community Health Care Worker (CHW) 131
Case Management Fundamentals
This course is designed to provide the student with the basic case management skills. The focus of this course is on the main components of case management, outreach, screening, intake, referrals, and follow-up. Students will learn about home visits, universal precautions and handling emergencies on the job and in the community. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and CHW 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Community Health Care Worker (CHW) 132
Field Experience
This course provides students the opportunity to practice and apply their community health worker core skills and competencies in the field. Students will receive ongoing mentorship and feedback throughout their fieldwork. This allows students to gain real life, hands-on experience while integrating themselves into the workforce. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Higher and enrollment in the CHW certificate program
8 Laboratory hours. 4 Credit Hours.
Offered At: DA, MX

Comparative Religion (RELIGN)

Comparative Religion (RELIGN) 101
Introduction To Religion
Introduction to the nature, origin, beliefs, practices, and development of religion in society. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR
IAI: H5 900,H5 904N GE: Humanities

Comparative Religion (RELIGN) 102
The Bible - Hebrew Old Test
The study of the Old Testament with an emphasis on its historical, cultural and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR
IAI: H5 901 GE: Humanities

Comparative Religion (RELIGN) 103
The Bible - New Testament
The study of the New Testament, with an emphasis on its historical, cultural and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR
IAI: H5 901 GE: Humanities

Comparative Religion (RELIGN) 104
Islamic Scriptures: The Qur'an
The study of the Qur'an with an emphasis on its historical, cultural and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH, TR, WR
IAI: H5 901 GE: Humanities

Comparative Religion (RELIGN) 106
Comparative Religion I/Eastern Religion
Comparison and investigation of major Eastern religions. Includes origins, rituals, religious knowledge and destiny. This course concentrates on the religions of the Eastern world. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, TR, WR
IAI: H5 904N GE: Humanities HD Course

Comparative Religion (RELIGN) 107
Com Rel II Western Religion
Comparison and investigation of major Western religions. Includes origins, rituals, religious knowledge and destiny. This course concentrates on the religions of the Western world. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR
IAI: H5 904N GE: Humanities HD Course

Comparative Religion (RELIGN) 108
Religion And Psychology
The study of the relationship between religion and psychology. Includes the similarities between religious and psychological phenomena; ways religion and psychology shape and influence one another; and how human needs are met through the blending of religious and psychological experiences. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH, TR
GE: Humanities

Computer Information Systems (CIS)

Computer Information Systems (CIS) 101
Computer Science 101
An introductory course in computer science and programming, with emphasis on the logical analysis of a problem and the formulation of a computer program leading to its solution. Topics include basic concepts of computer systems, computer types, cloud computing, and computer programming languages. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 102
Intro To Programming Logic
Techniques and problem-solving aids necessary for efficient solution of computer programming problems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, MX, OH

Computer Information Systems (CIS) 103
Fundamentals of Programming
How to use a language to program a computer for real world problem solving in mathematics, science, business and other fields. The course will feature elements of program design, data types and expressions, procedures and modularity, conditions and loops, data and control structures, development of algorithms, and writing and debugging programs. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 Eligibility or Successful Completion of CIS 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 111
Computer Operations
This course introduces operation and routine maintenance of hardware technologies; central processing unit; peripheral devices; network setup and connecting; notebooks; and printers. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 112
Advanced Computer Operation
Operating system concepts; program resources, and their allocations, job scheduling, exception handling, set-up, relationship between operating system, hardware and user program, time sharing and teleprocessing. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 111.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Computer Information Systems (CIS) 113
Human-Computer Interaction
This course introduces students to the user interface development process, including evaluating, managing, and differentiating interaction styles. Design limitations and issues will be discussed, as students explore the design of computer interfaces. Students will follow an interactive design process to create a user-centered interface. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 114
Mobile Application Development
This course emphasizes development in an application language appropriate for mobile devices. This course covers programming logic, tools, and code syntax. It also covers designing interfaces to create an interactive multimedia mobile app. Students are expected to have some previous programming experience. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 142 or CIS 144, or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 116
Operating System I
This course provides an overview including a theoretical and practical framework for the study of controlling software in the microcomputer environment using prevailing operating systems. The concepts of interrupt handling, scheduling and query techniques, and access and storage methods will be clarified through readings and discussions. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 117
Introduction to Apple Development
This course gives students a solid foundation in computer programming fundamentals, but using the Apple Swift language for coding mobile Apps. Throughout this course, students will gain practical experience with the tools, techniques, and concepts needed to build basic apps for Apple devices from scratch. Topics include software development methodology, data types, control flow, functions, storage containers, and the mechanics of testing and debugging Apps. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Computer Information Systems (CIS) 118
Information Technology Problem Solving
The course introduces students to a wide variety of problem solving methodologies and Information Technology tools that build problem solving skills needed to effectively meet the challenges of real world scenarios. They will use a variety of IT tools including programming, social media and networking among others. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 119
Apple User Management
This course will introduce students to the various Apple operating Systems that are used to control and manage Apple computing devices. The course also teaches students the fundamentals of using Apple devices such as phones, tablets, media and computers. In addition, hardware management concepts are covered in order to guide students through the steps necessary to effectively use these devices with peripherals, storage, and networking equipment. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Computer Information Systems (CIS) 120
Introduction to Computer Applications
Fundamental concepts of computer information systems as applied to microcomputers in business and individual use; includes hand-on experience with a variety of microcomputer software. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than three credit hours will be counted towards the CIS/IT degree requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the consent of Departments Chairperson. ARC: 3 times.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: BUS 902
Repeatable: Yes, up to 3 times

Computer Information Systems (CIS) 122
Intro to Word Processing on Microcomputers
In-depth concepts of word processing as they apply to microcomputers in business and personal use. Laboratory assignments provide hands-on experience with microcomputer word processing software. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than three credit hours will be counted towards the CIS/IT degree requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the Consent of Departments Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 3 times

Computer Information Systems (CIS) 123
Microcomputer Spreadsheets
Fundamental concepts of computer programs as exemplified in the electronic spreadsheet. Emphasis on business applications and personal financial management and tax preparation. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than three credit hours will be counted towards the CIS/IT degree requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the Consent of Departments Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 3 times

Computer Information Systems (CIS) 124
Introduction to Cloud Computing
This course will expose students to basic knowledge of Cloud Computing. Students get a core grounding in the Cloud platform and gain the skills to launch a cloud computing career. Students will get an overview of cloud computing concepts and key factors to consider when moving to the cloud. Students will also learn about core Cloud services, security, architecture, pricing, and support. Upon completion, students will be prepared to take the exam for AWS Certified Cloud Practitioner. Writing assignments as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 101, Computer Science 101 and a grade of C or better in either NET TEC 121, Internetworking I, or COMPSFI 101, Networking Essentials, or consent of the Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR, WR

Computer Information Systems (CIS) 130
Intro to Assembler Programming
Writing programs demonstrating use of assembler language. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 103 and CIS 135, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Computer Information Systems (CIS) 142
C++ Object Oriented Programming I
Fundamentals of structured object-oriented C++ programming through a study of program specification and design, algorithm development, flowcharts, problem solving, programming concepts, classes and methods, control structures, arrays, strings, coding and testing using a modern software development environment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 118 or higher, or consent of Department Chairperson. (CIS 101 is recommended)
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CS 911

Computer Information Systems (CIS) 144
Java Object Oriented Programming I
A block-structured high-level programming language commonly used in internet applications; including procedural and data abstraction programming styles; the concepts of design, testing, and documentation in programming, programming platforms, and software developments; selection, repetition, and sequence control structures; the basic programming elements of arrays, records, and files. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 118 or higher, or consent of Department Chairperson. (CIS 101 is recommended)
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CS 911

Computer Information Systems (CIS) 145
Database Management
In-depth concepts of database as they apply to microcomputers in business and personal use to build information management systems. The network, hierarchical, and relational models are discussed. DBMS on microcomputers are used for lab assignments to implement the rational models. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than three credit hours will be counted towards the CIS/IT degree requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the Consent of Departments Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 3 times

Computer Information Systems (CIS) 146
Python Programming I
Fundamentals of structured object-oriented Python programming through a study of the concepts of program specification and design, algorithm development, flowcharts, problem solving, programming concepts, classes and functions, control structures, store collection, strings, coding and testing using a modern software development environment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 118 or higher, or consent of Department Chairperson. (CIS 101 is recommended)
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR, WR

Computer Information Systems (CIS) 158
Web Development I
Course emphasis will include the design and development of standards-based HTML, XHTML, and CSS documents with an introduction to Javascript. Previous knowledge of file management, including downloading and uploading, is required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 171
Computer Mathematics
Survey of numbers systems, conversion of one number system into another; fundamental operations of binary, octal and hexadecimal arithmetic. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 99, or Grade of C or better in MATH 140.
3-4 Lecture Hours. 3-4 Credit Hours.
Offered At: DA

Computer Information Systems (CIS) 175
Introduction to Data Science
This course will address how to use data to study the world around us. Students will learn how to collect and store data, use programming languages to explore data, and study methods for making inferences about that data. In addition to learning to manipulate and test data, students will discuss when and how to use data and whether data is always neutral. Students will examine biases in data. The course explores appropriate uses and times surrounding data collection and usage. The course will encourage students to approach data from varying views to enhance skill sets for critical inquiry. Students will learn to see data in their everyday lives and work with exciting and relevant datasets for them and their communities. Computations will be done using programming languages and web-based interactive computing platforms.
Eligibility for college-level math or consent of Department Chair.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Computer Information Systems (CIS) 181
Web Development I/Basic Web Technologies
This course covers website architecture, layout structure, documentation, and user interface development with an emphasis on valid and semantic code. Style sheets will be used to organize and present page content. Responsive design techniques and tools will be used to build a robust website. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 Eligibility or Successful Completion of CIS 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 182
Web Development II/Client Side Scripting
This course focuses on client-wide scripting language to verify data entry, to manipulate and control web page elements, and to store information on client machines using cookies. This course also introduces students to industry-standard client-side scripting libraries as well as concepts of data handling, Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 181, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 201
Advanced Apple Development
This course is a further exploration into the SWIFT Object Oriented Programming language concepts and methods for creating mobile Apps for iPhones and iPads. Students will also learn how to create multi-screen Apps using the Xcode design interface. Through a series of guided and unguided projects, students will learn to effectively connect programming code to user interface objects for creating engaging mobile Apps for Apple devices. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 Eligibility and Completion of CIS 117 -Introduction to Apple Development with grade of C or better, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Computer Information Systems (CIS) 203
Advanced Basic Programming
Event-driven programming using the Visual Basic programming language. Includes algorithm development, structured design and file processing, and the use of various controls including control arrays, exception handling and the use multiple forms. Introduces database manipulation using Microsoft Access and database controls. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 103, or Grade of C or better in CIS 142, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR

Computer Information Systems (CIS) 224
Cloud Architecture
Cloud Architecture is an essential task in the Enterprise Operation. In this course, we will identify services and features to build resilient secure and highly available IT solutions on the AWS cloud architecture platform. Solutions differ depending on industry, types of applications, and business size; you will be guided through the process of designing optimal IT solutions focusing on account security, networking, compute, storage, databases, monitoring, automation, containers, serverless architecture, edge services and backup and recovery. Upon completion, you'll be prepared to take the AWS Certified Solutions Architect Associate exam. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 124 Intro to Cloud Computing, or consent of the Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR, WR

Computer Information Systems (CIS) 242
C++ Object Oriented Programming II
Building on prior programming experience, design and implementation of large-scale programs; abstract data types; and data structures: files, sets, pointers, lists, stacks, queues, trees, graphs. Program verification and complexity, recursions, and dynamic concepts: memory, scope, block structures. Text processing and introduction to searching and sorting algorithms. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 142, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CS 912

Computer Information Systems (CIS) 244
Java Object Oriented Programming II
Use fast, secure, and reliable Java programming language for designing and implementing applications and websites; management of abstract data types; data structures (lists, stacks, queues, trees, graphs); program verification and complexity; recursion; dynamic concepts (dynamic memory allocation); text processing, and an introduction to searching and sorting algorithms. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 144 or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CS 912

Computer Information Systems (CIS) 245
Principles of Software Development
This course introduces and applies the methods and procedures used in the analysis and design of software within modern software engineering fields. Topics covered will include Software Architecture, cloud software, etc. Students are expected to have some previous programming experience and to develop software that covers the topics introduced in class. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in Computer Information System (CIS 101) and Fundamentals of Programming (CIS 103) or consent of the Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 250
Systems Analysis and Design
This course provides students with theory and practice associated with the analysis and design of computer-based information systems. Fundamental topics include systems theory, the role of the information system in operating and managing the organization, systems design concepts, forms and work-flow, entity relationship diagramming, equipment selection, and implementation of systems. Other topics include the function of design tools such as CASE planning techniques, and project management. Hands-on activities will be introduced at each face of the SDLC with built-in security measures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 251
Intro to Database Management Systems
Examination of data manipulation needs and comparison of traditional processes for meeting needs with data base approach; use of computer simulations to practice and apply database management system (DBMS) techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR

Computer Information Systems (CIS) 255
Operating Systems II
This course introduces prevailing operating systems and their relationship to servers in the work environment. Course covers distributions and licensing, system installation and configuration, file system management, system scripting and usage, resource administration, user and group management, process, services and kernel management, and network configuration. Students will also learn how to set up network and other services on a server system and perform remote administration. Administrative tasks include file compression, system backup, and software installation. Topics in troubleshooting, performance tuning, virtualization and system security are also covered in this course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 116 or COMPSFI 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 258
Web Development II
Extends introductory concepts of CIS 158, using a variety of Internet and general networking concepts, including interactive forms and CGI programming for the World Wide Web, multimedia development, Intranets, server installation and management, and database connectivity, and simple website administration. This will include multimedia additions, setting design styles, and installing on a web server. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 158 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Computer Information Systems (CIS) 260
Computer Information Systems Field Project
This is a capstone course that provides students with practical application of computer skills by participation in a planned and coordinated field project. At the start of the class, specific goals and requirements will be carefully outlined to ensure that the student is aware of his or her responsibilities. Writing assignments, as appropriate to the discipline, are part of the course.
CIS 260 - Prerequisites: Minimum of 18 credit hours completed with a C or better in CIS or NET TEC or CSFI courses, and consent of Department Chair.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 265
Computer Information Systems Internship
This course is designed to enable students to combine classroom training with practical Information Technology (IT) work experience through supervised on-the-job training in a public or private IT setting. IT interns may work at IT companies or for the IT department at larger business and corporations. They work alongside and support IT staff in software, hardware and other types of IT tasks and issues including networking, security, and software development. A minimum number of on-site hours is required for this course. Internship placement must be approved by the Program Chair/Coordinator. Writing assignments, as appropriate to the discipline, are part of the course.
Minimum of 18 credit hours completed with Grade of C or better in CIS -OR-NET TEC -OR-COMPSFI courses, and Consent of Department Chairperson.
10 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 275
Advanced Data Science
This course is the second Data Science course establishing a foundation of knowledge and skill in the subject and exploring practical considerations in data analysis. A strong background in probability and statistical methodology will be established. Advanced topics on data privacy and ethics, responsibility with data, security, encryption, and machine learning will be covered. This course will emphasize the application of concepts to address real problems in society. Computations will be done using programming languages, applications, and web-based interactive computing tools.
Completion of CIS 175 with a grade of C or better or Consent of Department Chair.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Computer Information Systems (CIS) 281
Web Development III/Server Side Programming
Continuation of CIS 182. Part III presents dynamic web programming using server side programming techniques. Database integration into website is also introduced. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 182, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 282
Web Development IV/Web Database Integration
Continuation of CIS 281. Part IV covers advanced topics in web development, including but not limited to Error Handling, Email, User Profile, Content Management, basic Online Store and E-Commerce Fundamentals. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in both CIS 281 and NET TEC 101, or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Computer Information Systems (CIS) 299
Special Topic Comp Info Sys
Special topics in CIS will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
1-4 Lecture Hours. 1-4 Credit Hours.
Offered At: KK, TR
Repeatable: Yes, up to 4 times

Construction Management (432CMGT)

Construction Management (432CMGT) 601
Introduction to Construction
The course is designed to give the student a foundation in the basic concepts of construction. The course focuses on the fundamental skills needed in the industry for the core construction class; industry related terminology, construction processes and procedures, scale reading, applying construction calculation, measuring, tools and usage, and industry job descriptions. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 602
Methods of Building Construction
The course is designed to develop an understanding of the methods of construction of residential and commercial type building and includes a survey of different types of construction and their advantages and limitations. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 603
Building Materials and Testing
Examination of the characteristics of materials such as wood, masonry, concrete, iron, and steel relative to their basic use in the construction industry. The physical properties of each will be studied relative to actual in-service behavior. This course is an introduction to the field and laboratory methods of testing soils, concrete, and steel. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 604
Blueprint and Specifications
Designed to provide proper knowledge of blueprints reading as it relates the architectural or building construction industry. The course covers the theory of orthographic projections, reading floor plans and elevations drawings, symbols and notations, scaling and dimensioning practices, reading blueprints of structural information, electrical and mechanical trade drawings. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 605
Construction Cost Estimating
This course is designed to provide the students with a basic introduction to the methods of construction, estimating and developing the associated costs. Students will gain a working knowledge of materials takeoffs, the estimating process, building and estimating spreadsheets, unit cost, assembles for different trades, overhead and profit. Manual and computer approaches to solving estimating problems will be used. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 432CMGT 604 and CIS 120.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 606
Construction Contracting Specs
Introduction the functions and operations of a construction office, including bidding, construction contracts and specifications, bonds and insurance, labor law and labor relations. Legal aspects and interpretation of contracts and specifications. This course is designed to give the student a general working knowledge of the various types of contracts, specification, and delivery methods. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 432CMGT 604.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 607
Construction Scheduling/Management
An introduction to the methods of construction scheduling and project management. Students will become familiarized with using different scheduling approaches, how to handle worksite paperwork, and to plan the need for manpower, materials, and equipment coordination with the project budget. The course will use manual and computer approaches to solving scheduling programs. Discussion and critical path methods (CPM) and analysis are included in the course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 432CMGT 604 and CIS 120.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 608
Project Management
This course is designed to provide the student with a basic understanding of the process of a construction project and provide the tools that are necessary to estimate or manage a construction project. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 432CMGT 604, 607, and CIS 120.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 609
Construction Safety II
This course covers thirty (30) hours of training, required by the Occupational Health and Safety Act (OSHA) that apply toward the 30-hour Construction Industry course completion card. The course covers topics pertaining to regulations covered by Standard 28 CFR 1926. Upon successful completion of the course, participants will receive an OSHA construction safety and health 30-hour course completion card from the Department of Labor. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Construction Management (432CMGT) 610
Construction Internship
This course is designed to give the student the practical application of current construction methods. There will be a variety of projects from the residential and commercial sectors. The sites selected will vary due to availability and weather. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
3 Laboratory hours. 3 Credit Hours.
Offered At: KK

Construction Materials Technic (432CNMT)

Construction Materials Technic (432CNMT) 611
Hot Mix Asphalt Level I
This course will include an introduction to laboratory and field equipment including proper utilization and calibration. Testing and general information on asphalt and the IDOT QC/QA will be presented. Student will be prepared to sit for the IDOT Level I certification in performing Hot Mix Asphalt (HMA) testing in the laboratory and field. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Construction Materials Technic (432CNMT) 612
Portland Cement Concrete Level I
The course is designed to prepare the student for level ACI/IDOT certification in performing Portland Cement Concrete (PCC) activities in the laboratory test. Testing and general information on the PCC and the eIDOT QC/QA will be covered. Persons completing this course will be able to do the field testing for PCC and QC/QA projects. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Construction Materials Technic (432CNMT) 613
Aggregates and Soils Level I
This course is designed to prepare the student for IDOT 3 day Aggregates and Soils certification in performing aggregates and soil material testing in the laboratory, including typical laboratory test methods and in the field. Writing assignments, as appropriate to the discipline, are part of the course.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: KK

Cooperative Work Experience (COOP EX)

Cooperative Work Experience (COOP EX) 101
Coop Education Exploration
Career planning, job entry skills, guidance to assist students in exploring and assessing their interests, aptitudes and abilities for consideration of career goals; development of skills necessary for job search success and job entry preparation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 100 or Grade of C or better in ENGLISH 127 and Grade of C or better in READING 125, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK

Cooperative Work Experience (COOP EX) 105
Business Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Cooperative Work Experience (COOP EX) 106
Commercial-Data Processing CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, WR

Cooperative Work Experience (COOP EX) 107
Health CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, MX

Cooperative Work Experience (COOP EX) 108
Engineering & Industrial Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Cooperative Work Experience (COOP EX) 109
Natural Science Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH

Cooperative Work Experience (COOP EX) 110
Public & Human Services CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, WR

Cooperative Work Experience (COOP EX) 205
Business Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Cooperative Work Experience (COOP EX) 206
Commercial-Data Processing CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, WR

Cooperative Work Experience (COOP EX) 207
Health CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, MX

Cooperative Work Experience (COOP EX) 208
Engineering & Industrial Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Cooperative Work Experience (COOP EX) 209
Natural Science Technologies CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH

Cooperative Work Experience (COOP EX) 210
Public & Human Services CWE
The Cooperative Education course is designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity to apply knowledge and gain exposure to work methods unavailable in the classroom. College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work, confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week. Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course or program/plan obligations. Academic credit for part-time employment (up to 20 hours per week) is awarded on a ratio of 1 semester hour of credit for each 5 hours of approved employment per week, with a maximum of 2 semester hours credit for the work component. Academic credit for full-time employment (21 or more hours per week) is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment per week, with a maximum of 2 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 1 semester credit hour. In total, variable credit may be acquired depending upon the number of hours on the job and the extent of follow-up seminars, up to a maximum of 3 semester credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: DA, KK, OH, WR

Cosmetology (COSMET)

Cosmetology (COSMET) 101
Intro to Cosmetology/Barbering
Topics covered in this course include orientation to the cosmetology field, its history, and the current state of the profession. This course also provides a foundation for understanding the histology of hair, principles of personal hygiene, requirements and procedures for sterilization, disinfection and sanitation, roller control, manicures and pedicures. Additionally, thermal and long-hair styling will be introduced. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96, or ESLINTG 99 and FS MATH 3001.
9 Laboratory hours. 3 Lecture hours. 6 Credit Hours.
Offered At: OH, TR

Cosmetology (COSMET) 102
Hair Cutting Technology
Students learn to identify, safely use and properly care for the various types of tools used for cutting and shaping hair. Students develop skill and proficiency in shaping hair with scissors and razors, as well as in various methods of cutting hair as required by specific hair styling and permanent waving. Considerable emphasis is placed on efficiency and quality. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COSMET 101 or concurrent enrollment in COSMET 101
12 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: OH, TR

Cosmetology (COSMET) 103
Basic Styling Technology
Through this course, students receive comprehensive instruction regarding the tools, materials, equipment and methods of basic hair styling techniques, both wet and thermal. Emphasis is placed on adapting hairstyles to suit the individual by analyzing texture, elasticity and porosity of various types of hair. Braiding, extensions and wig making techniques are also introduced. The course provides opportunities for the clinical application of services for which the student has received training. The student must pass the 600 proficiency exam both written and practical as part of the course requirements. Work is performed under the direct supervision of a licensed instructor.
Grade of C or better in COSMET 102 or concurrent enrollment in COSMET 102
12 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: OH, TR

Cosmetology (COSMET) 104
Basic Chemical Technology
Through this course, students will learn about chemical texture services, hair color, implements, materials and products used during chemical application techniques. Through comprehensive hair analysis, the student will make informative decisions regarding chemical textures services and hair color formulations. This course provides opportunities for the clinical application of services for which the student has received training. The student must pass the 900 Proficiency Exam, both written and practical, as part of course requirements. Work is performed under the direct supervision of a licensed instructor.
Grade of C or better in COSMET 101. Grade of C or better or concurrent enrollment in COSMET 102 and COSMET 103.
12 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: OH, TR

Cosmetology (COSMET) 105
Salon Technology I
This course provides opportunities for the practical application of specific cosmetology customer services for which the student has received previous training. Work is performed under the direct supervision of a licensed and experienced instructor. Emphasis is placed on the development of proficiency of client services. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COSMET 101, 102, 103, and completion of or concurrent enrollment in COSMET 104
15 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 106
Salon Technology II
This course provides opportunities for the practical application of specific cosmetology customer services for which the student has received previous training. Work is performed under the direct supervision of a licensed and experienced instructor. Emphasis is placed on the development of proficiency of client services and career development.
Grade of C or better in COSMET 101, 102, 103, 104, and completion of or concurrent enrollment in COSMET 105.
15 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 201
Advanced Cosmetology
Students received advance training to increase proficiency in all areas of customer servicing as it relates to cosmetology. Although trainees perform all work under direct supervision of a licensed instructor, they are much less dependent upon instructors in carrying out assignments, Students will refine and further develop specific skills and technique previously learned to enhance hair coloring, make up, acrylic nails, long hair and creative design on live models. Oral presentations as appropriate to the discipline, are part of the course.
Grade of C or better in COSMET 101, 102, 103, 104, 105. Grade of C or better or concurrent enrollment in COSMET 106.
12 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 202
Cosmetology Summative Seminar
This course provides the opportunity for practical application of all previously acquired cosmetology knowledge and skills. Trainees perform all work under direct supervision of a licensed instructor and are much less dependent upon instructors in carrying out assignments. Considerable emphasis is placed on efficiency and quality of work performed while servicing clients. Finalizing of the portfolio is required for this course. Preparation and review for the Illinois State Cosmetology exam will be provided. Internships as appropriate to the discipline may be part of the course.
Grade of C or better in COSMET 101, 102, 103, 104, 105, 106, 201, or concurrent enrollment in COSMET 106 and COSMET 201.
12 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 211
Post-Graduate Cosmetology Training I
This course covers subjects in the basic Cosmetology curriculum such as proper techniques in roller setting, haircutting, clipper and razor cutting, skin care, and massage, including theory and practice. Presentation of material includes the concepts that are intended to be taught and the skills to be acquired during the various phases of basic education. Writing assignments, as appropriate to the discipline, are part of the course.
High School Diploma or GED Certificate required. Student must be a graduate of an accredited cosmetology school and possess an active State of IL Cosmetology License.
15 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 212
Post-Graduate Cosmetology Training II
This course covers subjects in the basic Cosmetology curriculum such as proper techniques in wet hair styling, manicuring, pedicuring, chemical hair treatment, and hair coloring, including theory and practice. Presentation of materials includes the concepts that are intended to he taught and the skills to be acquired during the various phases of basic education. Writing assignments, as appropriate to the discipline, are part of the course.
High School Diploma or GED Certificate required. Student must be a graduate of an accredited cosmetology school and possess an active State of IL Cosmetology License.
15 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 223
Basic Teaching Skills for Career Education Instructors
Topics in this course cover educational objectives, student characteristics and development, the learning process and evaluation of learning, classroom management and lesson planning, assessment of learner performance, student motivation, and classroom development. Preparation and organization of subject matter of presentations include teaching objectives to be accomplished and correlate theoretical and practical applications. Salon Business basics are included, as well as applicable Illinois statutes and professional regulations. A portfolio and writing assignments, as appropriate to the discipline, are part of the course.
High School Diploma or GED Certificate required. Student must be a graduate of an accredited cosmetology school and possess an active State of IL Cosmetology License. Proof of 2 years of salon experience or Grade of C or better in COSMET 211 and 212.
14 Laboratory hours. 4 Lecture hours. 8 Credit Hours.
Offered At: TR

Cosmetology (COSMET) 224
Principles and Practice in Cosmetology Education
This course is conducted under the direct supervision of an Illinois licensed Cosmetology Teacher. It prepares the student teacher in presenting theoretical and practical demonstrations to students in the basic cosmetology curriculum. These demonstrations include the use of educational materials used in the classroom; use of technology in the classroom; and teaching techniques and technical skills in hair cutting procedures, using the clipper and the razor, procedures for analyze the skin, care of the skin and using massage and the skin care machine, and the development of hair styling techniques. A portfolio and writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or concurrent enrollment in COSMET 223.
14 Laboratory hours. 4 Lecture hours. 8 Credit Hours.
Offered At: TR

Criminal Justice (CRM JUS)

Criminal Justice (CRM JUS) 102
Administration of Criminal Justice
Operation of the agencies of criminal justice: police, prosecution, courts, correctional institutions, probation and parole. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CRJ 901

Criminal Justice (CRM JUS) 104
Street Law
The course contains information and activities designed to provide students with the ability to analyze, evaluate and understand legal issues related to business transactions, landlord and tenant relations, marriage and divorce, and constitutional issues like procedural and substantive due process. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH

Criminal Justice (CRM JUS) 114
Administration of Juvenile Justice
Studies in the etiology of juvenile delinquency, analysis of the agencies of control of juvenile behavior, and the roles of courts and correctional institutions in the administration of juvenile justice. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CRJ 914

Criminal Justice (CRM JUS) 151
Practice of Probation and Parole
Development, philosophy, organization and administration of probation and parole; survey of principles, investigation, supervision, treatment and utilization of community resources to rehabilitate and reintegrate the offender into society. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Criminal Justice (CRM JUS) 155
Introduction To Corrections
This course covers the history and development of corrections at the local, state and federal levels with emphasis on the goals, structure, and operations of correctional institutions. Included are alternatives to incarceration and the future of corrections within the American criminal justice system. This course is equivalent to the Illinois Articulation Initiatives Criminal Justice course numbered CRJ-911. Written assignments, as appropriate to the discipline, the course.
Grade of C or better in CRM JUS 102, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, WR
IAI: CRJ 911

Criminal Justice (CRM JUS) 170
Scope & Purpose of Private Policing
Study of private policing as an extension of law enforcement in business, industry or mercantile establishments; applications within civil law enforcement; role of the security officer; analysis and development of US public and private policing. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Criminal Justice (CRM JUS) 172
Management & Supervision for Private Policing
Study of police supervisory and management principles; concepts of organization, communication, planning and human relationships. Analysis of problems and responsibilities in private security at middle-management; role of security director from behavioral standpoint. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Criminal Justice (CRM JUS) 173
Issues & Problems of Private Policing
Analysis of current issues and occupational aspects of private policing; implementation of federal, state and local government recommendations applied to private policing. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Criminal Justice (CRM JUS) 174
Law For Private Police
Survey of criminal law and applications for the private police industry; substantial criminal law, rules of evidence, criminal court procedures, court presentation; analysis of current civil court actions relating to private security. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Criminal Justice (CRM JUS) 202
Issues In Criminal Justice
Critical issues related to crime and urban society; analysis and evaluation of documents in the field of Criminal Justice. Consideration of newly proposed reforms and the method of implementing these reforms. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Criminal Justice (CRM JUS) 211
Intro To Investigation
Intensive study and analysis in investigative procedures; strategy and tactics of obtaining and analyzing evidence through testimonial evidence, physical evidence and records; reconstructing the crime; preservation of evidence and case preparation. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Criminal Justice (CRM JUS) 215
Terrorism
Detailed study of terrorism, counter terrorism, terrorist personalities, and terrorist groups, including types, tactics, and trends on a worldwide scale as well as domestically. This course also examines the issues of prevention, civil liberties, nation building, and homeland security. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK

Criminal Justice (CRM JUS) 221
Police Organization & Management
Police organization as a means by which police goals are achieved. Variations in organizational patterns resulting from differing and changing objectives of police service. Analysis and evaluation of urban law enforcement problems and procedures. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Criminal Justice (CRM JUS) 222
Professional Responsibility
Examination of professional ethics and legal responsibilities of the criminal justice practitioner. Legal accountability of criminal justice practitioners; principles and techniques of stress management for maintenance of performance and health. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Criminal Justice (CRM JUS) 234
Criminal Law & Procedure
Analysis of the nature of substantive criminal law, with emphasis on its historical and philosophical development in the United States. Examination of constitutional rights of the defendant, as these relate to arrest, rules of evidence, and courtroom procedure at pre-trial and trial level. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Criminal Justice (CRM JUS) 250
Introduction To Criminology
This course covers the basics of criminology, criminological theories, principles and concepts, and the history and development of criminology. Included is the study of society's reaction to crime and criminals as well as those organizations and agencies designed to combat crime. This course is equivalent to the Illinois Articulation Initiatives Criminal Justice course numbered CRJ-912. Written assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CRM JUS 102, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, WR
IAI: CRJ 912

Criminal Justice (CRM JUS) 256
Constitutional Law
Study of the Fourth, Fifth, Sixth, Eighth and Fourteenth Amendments to the United States Constitution, as these govern police and court procedures and the rights of citizens. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Culinary (330CUL)

Culinary (330CUL) 700
College Success Hospitality Perspective
This course introduces students to the expectations of the college community and to the academic skills that promote success during their college career. Through coursework, students will develop strategies to improve their academic and professional skills. Students will also learn the importance of taking personal responsibility for their academic and career choices. Topics will be approached from a variety of interdisciplinary perspectives that focus on connecting individuals to their local and global communities in the culinary and hospitality industries. Through assignments that integrate community engagement, service learning, and hospitality and/or on-campus service projects, students will make connections between their coursework and their lives. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Culinary (330CUL) 701
Intro To Food Service I
This class is an introduction to the food service industry (history, organization and future challenges), career opportunities, standards of professionalism, instruction in principles, procedures and use of basic equipment; basic food and kitchen safety, beginning fundamentals and concepts of cooking. An emphasis will be placed on culinary math and measurements as well as culinary terminology. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; Concurrent enrollment in 330CUL 703,705,708.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Culinary (330CUL) 703
Food Sanitation & Safety I
Safe food handling is expected at all times when working in a commercial kitchen for the safety of the guests. This class will cover topics such as preventing food-borne illness, HACCP procedures, facility sanitation, legal guidelines, kitchen safety, safe food preparation, storing, and reheating guidelines to introduce the student to kitchen safety and sanitation. Writing assignments, as appropriate to the disciplines, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; Concurrent enrollment in 330CUL 701,705,708.
1-2 Lecture Hours. 1-2 Credit Hours.
Offered At: KK

Culinary (330CUL) 705
Chef's Training I-Section A
This course covers basic knife skills, proper station set-up and sanitation, classical cooking terminology, standard cooking methods, stock preparation, sauce preparation and heat transfer methods of steaming, sweating and roasting. Emphasizes professionalism, team work and career readiness as basic elements for success. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98, Concurrent enrollment in 330CUL 701,703 and 708.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Culinary (330CUL) 706
Introduction to Garde Manger
Introduction to Garde Mangerr (the cold kitchen) where the student will produce items such as cold soups, cold sauces, cheese plates, fruit plates, vegetable crudité, salads, sandwiches and condiments. Creative and attractive food presentation will include but will not be limited to color blocking, garnishing, knife cuts and spatial awareness. Includes sanitation as it applied to cold food preparation ready-to-eat foods and the equipment in the Garde Manger kitchen. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701, 330CUL 703, 330CUL 705, and 330CUL 708 or Consent of Department Chairperson.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Culinary (330CUL) 708
Chef's Training I-Section B
This class continues building on Chef Training I – A with a focus on the standard cooking and heat transfer methods of frying, broiling, poaching, and braising. Includes practicing knife skills, proper station set-up, classical cooking terminology and culinary math and measurements. Students will be introduced to basic plate presentations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98; concurrent enrollment in 330CUL 701, 703, and 705.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Culinary (330CUL) 709
Advanced Garde Manger
This course is designed to provide the student with advanced garde manger skills focusing on the creation and production of pates, galantines, roulades, sausage, hors d'oeuvres, and canapes. Canning and preserving are also covered.. Both individual plate and buffet presentations will be included to stress the visual appeal of food. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701, 330CUL 703, 330CUL 705, and 330CUL 708 or Consent of Department Chairperson.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Culinary (330CUL) 710
Plant Based Cooking
Students will be in the kitchen for this lab class creating flavor profiles for complete meals while utilizing health-supportive cooking methods and plant based ingredients. Common ingredients such as grains, beans, tofu, tempeh, seitan, vegetables and fruits will be incorporated into recipes providing for well-rounded meals suitable for following a plant-based diet. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701, 330CUL 703, 330CUL 705, and 330CUL 708 or consent of Department Chairperson.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Culinary (330CUL) 714
Nutrition for Chefs
This course provides the basic principles of nutrition and their relation to food preparation. Nutrition's role in culinary techniques, ingredient selection, flavor development and creation of healthful menu options will be applied in lecture and experiential learning. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701,703,705 and 708 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Culinary (330CUL) 717
Food Costing & Control
This course introduces common financial indicators in the food service industry. It includes topics such as profit and loss statements, food and beverage costs, purchasing and receiving, pricing a menu, measuring labor and managing from an operational and profitable perspective. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Culinary (330CUL) 721
Entree Preparation
Study of principles, methods and techniques involved in the preparation of international cuisines with an emphasis on specialized cooking methods and flavor profiles; practical experience in banquet and buffet production with an emphasis on presentation techniques and design; proper and safe use of tools, materials and quantity foodservice equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701, 703, 705, 708 or Consent of Department Chairperson. Concurrent enrollment in 330CUL 707 and 723.
15 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: KK

Culinary (330CUL) 723
Food Service Management
Instruction in food service management and executive responsibility in all facets of the food service industry. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson. Concurrent enrollment in 330CUL 717 and 721.
3 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: KK

Culinary (330CUL) 728
Restaurant Service
This course is held within a restaurant environment in which students will work for half of the semester in the kitchen and the other half in the dining room to be able to have a well-rounded operational experience. Students will utilize the cooking skills that they have learned in prior lab classes to effectively cook in a restaurant setting with a focus on guest satisfaction, speed and plate consistency. Food safety and sanitation, cooking techniques, plate presentation and professionalism are also included. When working in the dining room, students will rotate through positions typically found in a restaurant while creating a positive dining experience. Professionalism, teamwork, and following set service standards are included. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in (330CUL 701, 330CUL 703, 330CUL 705, and 330CUL 708), or Consent of Department Chairperson.
18 Laboratory hours. 1 Lecture hours. 7 Credit Hours.
Offered At: KK

Culinary (330CUL) 730
International Cooking
This class studies the principles and techniques involved in the preparation of cuisines from around the world with an emphasis on specialized cooking methods and flavor profiles found in the regions and countries being studied. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 330CUL 701, 330CUL 703, 330CUL 705, and 330CUL 708 or consent of Department Chairperson.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Cybersecurity (COMPSFI)

Cybersecurity (COMPSFI) 101
Networking Essentials
This course is designed to provide essential knowledge in networking that is required for further study in Cybersecurity. It will explore the areas of knowledge necessary to understand general networking essentials and lay the foundation for further study and coursework. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Cybersecurity (COMPSFI) 102
Information Security Essentials
This course covers essential terminology, concepts, principles, and practices in Information Security and Assurance. The course balances a mix of technical and non-technical components for building, managing, and maintaining secure systems. The course introduces students to risk management, security policies, and prevailing controls and countermeasures used to minimize the risk of security breaches and intrusions. The course also provides an overview of the current trends in Information Security and the challenges faced when attempting to build secure systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in CIS 116 or COMPSFI 101 or NET TEC 121, or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Cybersecurity (COMPSFI) 202
Cybercrime and Incident Response
This course covers the history, evolution, and the prevailing types and forms of cybercrime in our interconnected world. Students learn about the weakest links cybercriminals tend to exploit. The course covers the different types of cybercrime activities, intrusions and breaches, as well as, cybercrime terminology. Students learn how programming weakness/ flaws or human errors make systems and applications vulnerable to cybercrime. The course introduces digital forensics and the application of forensic techniques to investigate cybercrime and respond to incidents and breaches. Writing assignments, as appropriate to the discipline, are part of the course/.
Grade C or better in COMPSFI 101 or NET TEC 121, or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Cybersecurity (COMPSFI) 203
Financial Cybercrime
This course is one of the requirements for Computer Security and Forensic Investigation certificate program /plan 297. Explores the various types of economic cybercrime, the far-reaching consequences of such crime, and some recovery and countermeasures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 102 and COMPSFI 202.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Cybersecurity (COMPSFI) 204
Intro to Computer Forensics and Law
This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. Designed to provide an introduction to the world of computer forensics and the attendant legal issues concerning privacy and electronic evidence. Explores computer forensics as the science of collecting , preserving and analyzing data from computers so they can be admissible at a company discipline hearing or in a court of law. Surveys problems of maintaining a secure technological environment, protecting the identity of individuals, as well as protecting confidential information. In addition, it will introduce techniques used in the collection and analysis of evidence. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 102 and COMPSFI 202.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Cybersecurity (COMPSFI) 205
Cyber Forensics
This course covers digital forensic techniques, procedures, and technology used in responding to cybercrime incidents and breaches. The course demonstrates how to manage digital forensic evidence, how to use accepted computer forensic technology and tools to respond, how to draw sound conclusions based on digital forensic examination and analysis, and how to present collected information and findings to various audiences including management. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 202 -OR- Consent of Department Chairperson.
1 Lecture Hours. 4 Laboratory Hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 206
Internet Vulnerabilities, Criminal Activities & Investigative Procedures
This course is one of the requirements of the Computer Security and Forensic Investigation program/plan 297. An overview of appropriate, lawful investigative procedures for the collection, documentation, preparation and presentation of evidence from internet cybercrime investigations. The lab course focuses on the areas of search and seizure, the use of some evidence analysis and presentation software and other appropriate software tools. Writing assignments as appropriate to the discipline are part of the course.
Grade of C or better in CIS 158, or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: WR

Cybersecurity (COMPSFI) 212
Scripting for Cybersecurity
Scripting languages have become an integral part of modern cybersecurity testing, analysis and verification. The course builds upon the foundational course in programming to develop scripts and programs for the modern security professionals' toolbox to monitor, protect against, contain, respond to and recover from cyberattacks. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 103 and COMPSFI 101 -OR- NET TEC 121 -OR- Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 213
Ethical Hacking
This course introduces a hands-on practical approach to ethical hacking. The course introduces key concepts, principles, and techniques for attacking and compromising a network as to ultimately secure it. The course also emphasizes network attack methodologies with emphasis on the practical use of network attack tools and techniques, appropriate defenses, and countermeasures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 102 -OR- Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 214
Information Securtiy Systems Analysis
This course examines the integral components of effective Cybersecurity practices including Threat Management, Vulnerability Management, Cyber Incident Response, and Security Architecture. The course provides an overview of the challenges faced when attempting to build and maintain secure systems in a networked environment and explores the monitoring of systems for identification and response to intrusions and breaches. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 202 -OR- Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 215
Information Security Domain
This course provides a detailed study of the Body of Knowledge (CBK) for the Information Security domains. The course covers each domain, the areas it encompasses, and how each is integral to the information security process. This course is initial preparation or review for those who may wish to pursue certification as an Information Security Systems professional. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 102 -OR- Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 216
Info Security Program Management
The course explores critical areas of enterprise security and risk management and examines secure solutions for complex enterprise environments. Students apply critical thinking and judgment across a broad spectrum of security areas to propose and implement solutions that meet enterprise requirements. The course covers key security program management practices, such as policies and procedures, which govern how institutions view the importance of securing today's networked environments susceptible to cybercrime. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in COMPSFI 213 -OR- Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, WR

Cybersecurity (COMPSFI) 231
Internetworking Security
This course provides a detailed understanding of prevailing network security principles and practices. It covers strategies, tool and configurations used to secure network devices and network infrastructures. Students develop the skills necessary to secure routers and switches, and learn how to apply security controls and countermeasures to minimize security risks that modern network infrastructures face. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NET TEC 122, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Dance (DANCE)

Dance (DANCE) 110
Ballet I
Introduction to the technique and principles of classical ballet. Emphasizes instruction through the fundamentals of basic barre, center skills, positions, traveling sequences, placement and terminology. The history of ballet and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 113
Jazz I
Introduction to the technique and principles of jazz dance. Emphasizes instruction through a fusion of American jazz techniques and styles. Fundamentals include basic floor skills, concepts of weight, traveling sequences, placement, and terminology. The history of jazz dance and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 115
Modern I
Introduction to the technique and principles of modern dance. Emphasizes instruction through a fusion of American modern techniques and styles. fundamentals include basic floor skills, concepts of weight, traveling sequences, placement, and terminology. The history of modern dance and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 117
Hip Hop I
Introduction to the technique and principles of hip-hop dance. Emphasizes instruction through a fusion of American hip-hop techniques and styles. Fundamentals include basic floor skills, concepts of weight, traveling sequences, placement, and terminology. The history of hip-hop dance and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 119
World I
Introduction to the technique and principles of world dance styles from Latin America, Africa, the Middle East, and Asia. Emphasis instruction through a fusion of world dance techniques and styles. Fundamentals include basic floor skills, concept of weight, traveling sequences, placement, and terminology. The history of world dance and aesthetic standards of dance is explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course, Not more than an accumulated six credit hours will be counted towards graduation.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 3 times

Dance (DANCE) 210
Ballet II
Further develop the technique and principles of classical ballet. Emphasizes instruction through the mastery of intermediate barre, center skills, positions, traveling sequences, placement, and terminology. The history of ballet and aesthetic standards of dance are explored through movement, lecture, and concert attendance, Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DANCE 110 or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 213
Jazz II
Further develop the technique and principles of jazz dance. Emphasizes instruction through a fusion of American jazz techniques and styles. Mastery of intermediate center floor skills, concepts of weight, traveling sequences, placement and terminology are required. The history of jazz dance and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DANCE 113 or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 215
Modern II
Further develop the technique and principles of modern dance. Emphasizes instruction through a fusion of American modern techniques and styles. Mastery of intermediate center floor skills, concepts of weight, traveling sequences, placement, and terminology are required. The history of modern dance and aesthetic standards of dance are explored through movement. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DANCE 115 or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 217
Hip Hop II
Further develop the technique and principles of hip-hop dance. Emphasizes instruction through a fusion of American hip-hop techniques and styles. Mastery of intermediate center floor skills, concepts of weight, traveling sequences, placement, and terminology are required. The history of hip-hop dance and aesthetic standards of dance are explored through movement, lecture, and concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DANCE 117 or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW

Dance (DANCE) 219
World II
Further develop the techniques and principles of world dance styles from Latin America, Africa, The Middle East, and Asia. Emphasizes instruction through a fusion of world techniques and styles. Mastery of intermediate center floor skills, concepts of weight, traveling sequences, placement, and terminology are required. The history of world dance and aesthetic standards of dance is explored through movement, lecture, and concert attendance, Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course. Not more than an accumulated six credit hours will be counted towards graduation.
Grade of C or better in DANCE 119 or consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 3 times

Dental Hygiene (DENTHYG)

Dental Hygiene (DENTHYG) 112
Introduction to Dental Hygiene
Introduction to the profession of dental hygiene, the dental hygiene process of care and human need theory. Emphasis on the roles of the professional dental hygienist, communication skills, motivational interviewing and cultural competence. Oral presentations and writing assignments as appropriate to the discipline are part of the course.
Admission to the Dental Hygiene Program/Plan 222.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 119
Introduction to Dental Radiography
This course provides an introduction to the fundamental principles of radiology in the study of the orofacial region. Topics covered include: radiation biology, radiation physics, and pre-clinical lab experience in the exposure of and basic interpretation of dental images. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in DENTHYG 131 and DENTHYG 133.
1.5 Laboratory hours. 1 Lecture hours. 1.5 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 121
Dental Hygiene Theory I
Introduction to concepts, and pre-clinical skills used during the assessment and implementation phases of the dental hygiene process of care. Concepts and procedures will be systematically presented during the lecture component of the class and applied in the pre-clinical laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
Admissions into the Dental Hygiene Program and Successful completion of DENTHYG 112
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 122
Dental Hygiene Theory II
A lecture course that discusses additional concepts used during the assessment, planning, implementation, evaluation, and documentation phases of the dental hygiene process of care. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in DENTHYG 121 and DENTHYG 123
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 123
Pre-Clinical Dental Hygiene
A laboratory companion course to DH 121 designed to apply the theoretical concepts presented in lecture to the pre-clinical setting. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 112 and concurrent enrollment in DENTHYG 121
7 Laboratory hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 124
Clinical Dental Hygiene I
A clinical companion course to DH 122. Emphasis on the assessment, planning implementation, evaluation, and documentation phases of the dental hygiene process of care. Introduction to clinical patient care. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 121 and DENTHYG 123 and concurrent enrollment in DENTHYG 122
9 Clinical hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 125
Diet and Nutrition in Oral Health
An introductory study of general biochemistry, metabolism, and nutrition as it relates to oral health, general health and disease. Particular reference is made to guidelines for integrating diet risk assessment and guidance into clinical practice. Writing assignments, as appropriate to the discipline, are part of the course.
Admissions into the Dental Hygiene Program
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 126
Dental Radiology
This course is a continuation of DH 119 Introduction to Dental Radiology and covers the application of the fundamental principles of dental radiology in the clinical setting. Advanced interpretation of clinical dental images will also be covered. Writing assignments as appropriate to the discipline are a part of the course.
Grade of C or better in DENTHYG 119 and concurrent enrollment in DENTHYG 124.
1.5 Laboratory hours. 1 Lecture hours. 1.5 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 130
Dental Materials
This course introduces students to the properties of dental materials and basic concepts of material science while providing laboratory experience in the manipulation of dental materials commonly used in dental hygiene practice. Lab safety protocol is also discussed. Writing assignments as appropriate to the discipline are a part of the course.
Admissions into the Dental Hygiene Program
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 131
Oral Structures & Function
A study in oral histology, embryology and dental anatomy emphasizing the development, anatomy, function and morphology of adult and deciduous dentition and related structures. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Dental Hygiene Program.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 132
General/Oral Pathology and Diagnosis
A survey of general and oral pathology with emphasis on diseases and their manifestations in the oral cavity. Recognition and detection of such deviations from normal are based on the clinical signs and symptoms, and an introduction to the art of differential diagnosis of lesions occurring in and out the oral cavity. Attention is directed to the discussion of pathology, history, radiographic and clinical appearance, prognosis and treatment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 131 and 133.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 133
Head And Neck Anatomy
Comprehensive overview of the anatomy of the skull, arteries veins, lymphatics, musculature fasciae and nervous structures of the head and neck. Topics in embryology and histology will also be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Admissions into the Dental Hygiene Program
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 135
Medical Emergencies in the Dental Setting
This course covers common medical emergencies encountered in the dental office and strategies for preventing, recognizing and managing such emergencies. Role playing will be part of the course. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Dental Hygiene Program.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 200
Clinical Dental Hygiene II
A combined lecture and clinical course. Concepts presented in lecture will be applied to the clinical setting. Emphasis is placed on the development of critical thinking and instrumentation skills. Writing assignments, as appropriate to the discipline, are part of the course
Grade of C or better in DENTHYG 122 and DENTHYG 124.
6.5 Clinical hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 202
Critique of Dental Literature
An Introduction to the fundamental concepts and skills needed to analyze, interpret and critique professional literature. Emphasis is placed on deriving conclusions that support best practices through evidenced based research. Writing assignments, as appropriate to the discipline, are part of the course.
Advanced standing in the Dental Hygiene program.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 233
Expanded Functions
The study of local anesthesia administration in dental procedures including the pharmacology, anatomy, physiology, patient management and emergency procedures associated with local anesthetic administration. Conscious sedation agents commonly used in the dental setting will also be discussed. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in DENTHYG 131 and DENTHYG 133.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 235
Community Dental Health I
An introduction to the current principles and issues in community health and their relationship to the delivery of dental care to the public sector; assessing, planning, implementing and evaluating a community dental health program; utilization of dental care services, dental care financing and oral health promotion will also be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Advanced standing in the Dental Hygiene program.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 241
Dental Pharmacology
This course introduces students to principles of pharmacology, characteristics of the major drug groups, and their utilization in medicine and dentistry. Emphasis is placed on drugs which have an impact on dental practice and drugs which are utilized in dental practice. Writing assignment, as appropriate to the discipline are part of the course.
Advanced standing in the Dental Hygiene program.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 243
Periodontics
A lecture course which includes the etiology, classification, symptomatology, diagnosis, treatment, and prognosis of periodontal disease. Emphasis will be placed on the phases of periodontics pertinent to a dental hygienist. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 121.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 244
Periodontics for Dental Hygienist
A lecture course which includes the etiology, classification symptomatology, diagnosis, treatment and prognosis of periodontal disease. Emphasis will be placed upon the phases of periodontics pertinent to a dental hygienist. Writing assignments, as appropriate to the discipline, are part of the course.
Advanced standing in the Dental Hygiene program.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 250
Oral Diagnosis
An overview course given as an introduction to the art of differential diagnosis as it relates to lesions occurring in and about the oral cavity. Attention is directed to the discussion of pathology, history, radiographic and clinical appearance, prognosis and treatment. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Dental Hygiene program/plan 222 and Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 251
Clinical Dental Hygiene III
A combined lecture and clinical course. Emphasis is placed on the dental hygiene process of care for patients with special needs, and implementation of advanced clinical techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 200.
12.5 Clinical hours. 2 Lecture hours. 6 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 252
Clinical Dental Hygiene IV
A combined lecture and clinical course. Emphasis is placed on preparing students for their clinical licensing examination and private practice. Writing assignments and oral presentations as appropriate to the discipline are part of the course.
Grade of C or better in DENTHYG 251.
12.5 Clinical hours. 1 Lecture hours. 5 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 254
Dental Specialties
This course is designed to acquaint the dental hygiene student with the various dental specialties and current trends in dental treatment. Guest lecturers, who are specialists in the field, will provide pertinent information and in some cases, supervise practical experiences during clinical rotation. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 256
Community Dental Health II
A continuation of Dental Hygiene 235 with emphasis on biostatistics and the epidemiology of dental disease. Public health careers and the role of the dental hygienist in community health will also be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DENTHYG 235.
2 Laboratory hours. 1 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 258
Ethics And Jurisprudence
Introduction to ethical and regulatory principles and Illinois law as it pertains to dental hygiene practice. Emphasis is placed on problem solving through the ethical decision making process. Reinforcement of professional behaviors with patients, colleagues, and the community. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Dental Hygiene Program/Plan 222 and Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Dental Hygiene (DENTHYG) 260
Senior Seminar
The course is a review of all material found on the national, regional and state dental hygiene board examinations. The course is designed to prepare students for the Dental Hygiene Board examinations, and also includes employment/professional preparation. Writing assignments, as appropriate to the discipline, are part of the course.
Advanced standing in the Dental Hygiene program.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Digital Multimedia (DMD)

Digital Multimedia (DMD) 105
2D Animation
This is a studio course that investigates the principles, practices, and philosophy of both traditional and 2D digital animation. Students will develop storyboards, drawings, flip books, and short computer animations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in ENGLISH 101, ART 131 recommended or taken concurrently, or consent of department chair.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: MC 924

Digital Multimedia (DMD) 115
Digital Audio
This is a studio course in which the primary orientation is the development of the student's portfolio. The course will investigate and develop soundtracks for video, film and multimedia. Students will develop soundtracks using digitized sounds, traditional foley effects, general midi music and dubbed effects, with the primary emphasis on the creation of a video and multimedia soundtrack. The use of professional sound and editing techniques will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Digital Multimedia (DMD) 121
3D Modeling
This is a studio course whose primary orientation is the development of the student's portfolio. The course will introduce students to 3D graphics, principles of perspective and basic principles of 3D modeling. The theory of 3D on the computer will be explored. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101 and DMD 168-1, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 130
Principles of Design and Development for Digital Media
Introduction to fundamental design and development principles within the context of digital media production. The course covers principles of design, color theory, typography, information architecture, and layout as it applies to digital media. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, CIS 120 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 131
Beg Multimedia Design & Dev
This course is an introduction to multimedia authoring using industry standards web authoring software applications. Students will use industry standards vectors and WSYWIG development software to design and develop web and desktop applications. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, DMD 130, and DMD 168, or Consent of Department Chairperson.
6 Laboratory Hours. 3 Credit Hours.
Offered At: HW
IAI: MC 923

Digital Multimedia (DMD) 168
Computer Art I
Students will be introduced to the concepts of computer art using representative programs and concepts from the profession. Students will be introduced to both raster paint/photo retouching programs and professional quality vector drawing programs. Students will also be introduced to the history of computer art. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101; or consent of department chairperson.
6 Laboratory Hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 179
Digital Video I
Students will learn digital camcorder operation, basic shooting and lighting techniques, basic editing, storyboard creation and video production planning. The history, theory and criticism of video will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, CIS 120 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 205
Advanced Animation
This studio course is a continuation of the exploration and development of 2D animation. Students will develop observational and storytelling skills, utilizing and experimental animation techniques, including stop motion, live-action composting, cutouts, time-lapse, and drawn animation. Students will explore the use of animation as a creative tool, art form, and distinct personal language through character development, timing, movement study, camera movement, observation and soundtrack implementation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, working knowledge of Macintosh platform, DMD 105 required, or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 221
3D Animation
This is a studio course whose primary orientation is the development of the student's portfolio. The course will develop the students understanding of 3D graphics, 3D dimensional modeling with an emphasis on movement, using systems and inverse kinematics and the use of constraints and bones. Advanced modeling will be used such as skins and mesh deformation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DMD 121 and DMD 168, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 231
Intermediate Multimedia Design & Development
This course builds upon the technical and design skills learned in DMD 130 and 131. Focus in on design skills, intermediate programming skills, basic concepts of object oriented scripting, open source libraries, and designing for mobile devices. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DMD 131 or Consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 233
Advanced Multimedia Design & Development
This course builds upon the technical and design skills learned in DMD 231. Focus is placed on advanced scripting and programming skills along with team-based projects. Students will develop an understanding of team roles, time management, and legal and technical considerations for completing a project, Students work in teams to design and complete a client-based web site. This will provide an opportunity to plan, design, develop, and implement solutions for web/multimedia projects requiring students to analyze, integrate, and synthesize knowledge acquired from previous course work. Writing assignments, appropriate to the discipline, are part of the course.
Grade of C or better in DMD 231, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 268
Advanced Computer Art
This studio course develops an understanding of and skills in computer art at an advanced level. This course builds upon the basic skills developed in DMD 168 and explores more advanced features in both bitmap and vector painting and drawing programs. Students will learn to utilize filters, layers, channels, gradient mesh, advanced type techniques, color correction, and surface and texture creation. This course will also explore preparing images for the web and using vector and bitmap programs in tandem. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DMD 168, or Consent of Department Chairperson.
2 Lecture Hours. 2 Laboratory Hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 279
Digital Video II
Builds upon the foundation of Digital Video I course. Students will learn advanced camera, editing, lighting, special effects, and audio techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DMD 115 or DMD 179, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Digital Multimedia (DMD) 299
Portfolio & Professional Practice Seminar
Students develop an online portfolio using technical and design skills learned in prior multimedia classes. Professional issues related to the business of interactive design will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in DMD 130, DMD 131, DMD 231, and DMD 233, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW

Economics (ECON)

Economics (ECON) 133
Consumer Economics
Principles of intelligent buying, investments, shelter, insurance, and basic commodities; development of consumer cooperative movement, advertising, fraud, monopoly, and competition, and role of government in promoting consumer welfare. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH
GE: Social & Behavioral Sciences

Economics (ECON) 201
Principles Of Economics I
Covers macro or income analysis; includes money, income determination, public finance, and economic development. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S3 901 GE: Social & Behavioral Sciences

Economics (ECON) 202
Principles Of Economics II
Covers micro or price analysis; includes the markets, production function, income distribution, and international trade. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S3 902 GE: Social & Behavioral Sciences

Economics (ECON) 204
Money And Banking
Economic history and operation of US monetary and banking systems; business cycles, international exchange, Federal Reserve System, and use of national fiscal policies as instruments of economic control. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ECON 201 and ECON 202, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences

Education (EDUC)

Education (EDUC) 101
Introduction To Education
This course will provide an introduction to teaching as a profession in the American education system. The course offers a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. It includes organizational structure and school governance. A field experience is required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR, WR

Education (EDUC) 102
Using Technology in The Class
Prepare pre-service and in-service teachers to integrate technology, including computer and multimedia software, into pre-K through 12th grade classes. Surveys concepts of technology use, provides hands-on experience with hardware and software, and addresses human, social, and ethical issues related to the use of technology in education. Meets national and state technology standards. Writing assignments as appropriate to the discipline are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR

Education (EDUC) 103
Students With Disabilities in School
A survey course that presents the historical, philosophical and legal foundations of special education, as well as an overview of the characteristics of individuals with disabilities, the Individual with Disabilities Act (IDEA) and the services that are provided under this act, and the diversity of exceptional populations with implications for service delivery. Writing assignments as appropriate to the discipline are part of the course.
Grade of C or better in EDUC 101 -OR- PSYCH 207 -OR- Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR

Education (EDUC) 120
Survey of Characteristics
This is an introduction to special education, including the historical foundations of special education, information regarding characteristics of individuals with exceptionalities, evidence based instructional strategies as well as legal policies in meeting the needs of diverse learners. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Approval for PK - 21 Special Education. Writing assignments and classroom observations as appropriate to the discipline, are part of the course.
Enrollment in Program/Plan 0443-Learning Behavior Specialist I -BC
4 Lecture hours. 4 Credit Hours.
Offered At: TR

Education (EDUC) 121
Principles and Practice
This course centers around explicit instruction with culturally responsive teaching and co-teaching with a special focus on equity. Methods and strategies related to students with disabilities and how accessing the general education curriculum via inclusion are examined. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Approval for PK - 21 Special Education. Writing assignments and classroom observations as appropriate to the discipline, are part of the course.
Enrollment in Program/Plan 0443-Learning Behavior Specialist I -BC
4 Lecture hours. 4 Credit Hours.
Offered At: TR

Education (EDUC) 122
Psychological Diagnosis
The purpose of this course is to provide prospective special education teachers with a foundation in effective assessments for students in special education. Specifically, content will cover the legal foundations of Special Education (SPED) assessment as well as understanding, administering and interpreting assessments as related to the determination of the eligibility for and type of special education and related & supportive services. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Approval for PK - 21 Special Education. Writing assignments and classroom observations as appropriate to the discipline, are part of the course.
Enrollment in Program/Plan 0443-Learning Behavior Specialist I -BC Grade of C or better in EDUC 120 and 121.
4 Lecture hours. 4 Credit Hours.
Offered At: TR

Education (EDUC) 170
Observation, Documentation, & Assessment in ECSE
This course provides an overview of observation, documentation, and assessment for children birth to age eight with or at risk for having special needs. Students will be introduced to developmentally appropriate techniques for observing, documenting, and assessing the development of children with or at risk for special needs in order to inform curriculum planning and promote positive guidance strategies. Students will become familiar with informal and formal methods and tools for observation, documentation, and assessment and their appropriate use across developmental domains, environmental contexts, disability diagnosis, and ages. Students will identify methods for individual, environmental, and program assessment in special education contexts. The course emphasizes a strengths-based approach to assessment that includes building partnerships with families and professional colleagues and cultural responsiveness. Self-reflection is a major component of the course as well as the examination of bias in the observation and assessment of young children from diverse backgrounds. Fifteen hours observing young children in an early childhood education setting are required for the course. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Approval for Early Childhood Special Education. Writing assignments, as appropriate to the discipline, are required.
Enrollment in the Early Childhood Special Education Basic Certificate Program.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 171
Language and Literacy in ECSE
This course will cover language and literacy development in children age birth to eight years old who are at risk for or have special needs with a specific focus on early childhood special education settings. The course will include an overview of typical language development birth to age eight. Students will be introduced to atypical language development and specific disabilities that affect language and literacy. The course will outline the relationship between communication and language differences and learning and development across domains and contexts. Students will explore methods for supporting development, learning, and literacy for children at risk for or with special needs including assistive technologies and alternative and augmentative communication methods. The course emphasizes a strengths-based approach that includes building partnerships with families and professional colleagues and cultural responsiveness. Self-reflection is a major component of the course as well as the examination of bias in the observation and assessment of young children from diverse backgrounds. Five observation hours are required as part of the course. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Approval for Early Childhood Special Education. Writing assignments, as appropriate to the discipline, are required.
Enrollment in the Early Childhood Special Education Basic Certificate Program.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 172
Principles and Practices of ECSE
The purpose of this course is to examine how teachers can implement developmentally appropriate methods in a curriculum while promoting the development of social/emotional, cognitive, communication, adaptive, motor and other learning skills of young children with special needs in various settings to ensure all students can be full participants in their classrooms and in the local school community. Through discussion and hands-on learning activities, teachers will learn to design and adapt learning environments to support development and adapt curricular activities and materials in ways that will allow active and full participation of all children.
Enrollment in the Early Childhood Special Education Basic Certificate Program.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 203
Educational Psychology
Assessment of aptitudes, capacities, interests, and achievements; and the educational implications of physical, emotional and social development. Hours of observing in an educational setting are required for this course to ensure various aspects of teaching strategies in a classroom can be observed by the students. Writing assignments as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Education (EDUC) 220
Theoretical Foundations of 2nd Language Acquisition and Learning
This course is an introduction to the theoretical frameworks and educational research of English as a Second Language (ESL) and Bilingual Education (BE). It prepares students to analyze and evaluate the effectiveness of various ESL/BE program models across different contexts. Students will investigate the relationship between theory and practice and understand their role as advocates for English language learners. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for ESL and/or Bilingual Education. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101 with a grade of C or better
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 221
Methods and Materials for Teaching ESL in PK-12
This course explores methods and materials for teaching English language learners in ESL, bilingual, and mainstream PK-12 classrooms. With an emphasis on integration, students will learn to plan and implement English literacy and academic content area instruction. Students learn to recognize and practice strategies to differentiate standards-based instruction according to language proficiency. A variety of teaching resources and technologies are introduced, analyzed, and matched to diverse English language learners' needs. Meaningful connections with families and communities are discussed in relation to building culturally-responsive practices to support English language learners' achievement. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for ESL and/or Bilingual Education.
Completion of or concurrent enrollment in EDUC 220
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 222
Methods & Materials for Teaching ESL in PK-12 Bilingual
This course prepares bilingual students to work with second language learners in PK-12 bilingual programs. It will examine research-based models of bilingual education and prepare students to successfully assess benefits and limitations of particular program designs for various schools or districts. Using both primary and target languages, students will learn how to assess content instruction, teach literacy, select instructional materials, and use a variety of assessment tools. Relevant local, state, and national standards and policies are introduced in relations to teaching and learning in bilingual programs. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Bilingual Education. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of or concurrent enrollment in EDUC 220
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 223
Assessment of the Second Language Learner
This course examines the various assessment issues affecting English language learners in a variety of educational settings. It introduces concepts, procedures, and tools that are associated with current practices used in the identification and placement of bilingual and ESL learners. Students identify and differentiate between language needs and developmental needs. Students learn to recognize the impact of context on second language learners' performance and assess their content instruction in both primary and target languages in order to accurately plan and inform their future instruction. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for ESL and/or Bilingual Education. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of or concurrent enrollment in EDUC 220
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 224
Cross Cultural Studies for Teaching Limited English Proficient Students
This course focuses on the relationship between language and culture as it relates to the needs and challenges of English language learners in ESL, bilingual, and mainstream PK-12 classrooms. It prepares students to examine cultural, political and social factors of English language learner's identity and its impact on the process of teaching and learning. Students will investigate how learning and communication styles affect teacher expectations on student achievement. Students will learn to utilize practical resources that support positive relationships between school, family and the community to provide culturally responsive instruction. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for ESL and/or Bilingual Education. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101 with a grade of C or better
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 225
Bilingual and ESL Practicum
This course serves as the student's culminating experience for the Bilingual/English Second Language Program (ESL). Students will demonstrate competency in effectively teaching Bilingual/English language learners in the classroom. Students will participate in supervised authentic teaching and learning environments. The course requires both formal and informal observations, demonstration of support for students as well as effective instructional strategies, learning activities and assessment techniques. Students will reflect on their experience. Students are evaluated during the practicum experience. The course requires 100 hours of clinical experience. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for ESL and/or Bilingual Education. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of EDUC 220, EDUC 221, EDUC 223, EDUC 224 with a grade of C or better
1 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 226
Foundations of Educational Technology
This course explores technology and its use in society and schools as we move through the 21st-century. This course provides an overview of technologies used in the teaching and learning process. It serves as an introduction to current trends in educational technology and the knowledge needed by educators to successfully integrate it into their learning space. Students will investigate educational resources and current trends in educational technology. Emphasis will be given to building a strong professional learning network that will be expressed through a blog and professional online portfolio. Various technology tools will be applied, building a foundation to explore the knowledge needed to acquire the Technology Specialist certification in Illinois. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 227
Digital Tools for Teaching, Learning & Assessment
This course explores the use of digital tools for teaching, learning, and assessment in educational settings. Student learning styles are being taken into account more than ever in education, in part due to the offerings technology brings to the classroom. Educators will learn how to plan, select, develop, and evaluate how to effectively use appropriate instructional technologies and digital tools to enhance teaching and learning. The 21st-century skill framework of the 4Cs: critical thinking, communication, collaboration, and creativity and use in the classroom will be investigated in depth. The concept of digital tools for formative and summative assessments will be explored. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 228
Designing Active Learning Environments
Course Catalog Description: In this course, students will develop an understanding of theories of learning and how these theories relate to educational technology. Students will explore how to design, develop and deliver active learning lessons using digital tools for all learners. The topics of blended and personalized learning will be addressed, looking at current trends and best practices to meet the needs of every learner. Emphasis is given to design a unit of instruction with learning experience based on the Understanding by Design model. This course will provide guidance on how to help students become active participants in goal setting, management of learning and reflection through digital tools. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226 and CIS 250
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 229
Digital Media Literacy in Classrooms
This course introduces how media surrounds us at all turns, influencing our thoughts and actions. With today's influx of information, it is critical that our students know how to master the media. This course gives an introduction to the function and issues related to media in society. Students will explore different types of media to develop an understanding of the role it plays in our lives and how it influences our teaching and learning. This includes digital and visual literacies. The course is designed to give educators the knowledge and strategies needed to help students become media literate and to build critical thinking skills that are transferable across subject areas. The course will help educators examine, interpret and evaluate messages while discussing the impact these messages have on today's students. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 230
Internet Technology Fundamentals with Hardware, Software & Operating Systems
This course introduces educators to the fundamentals of computers including terminology, hardware, software, and operating systems. Students will learn about selecting, managing and maintaining educational technology for schools. The fundamentals of the Internet, including its origins, evolution, and design will be discussed. Students will gain a basic understanding of web content languages, website management, and design/usability principles including accessibility. Critical Internet issues such as security, privacy, and copyright, will be explored within the context of educational technology and schools. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 231
Social Media in the K-12 Classroom
This course explores the latest social media applications and the role they play in educational settings. Social media has the ability to increase our knowledge and reach outside of the classroom walls. Both educators and students can benefit from the perspectives of many, not just those in front of us. Students will experience an immersive learning environment via popular social media platforms online and learn practical ways to tell their story while building their professional network. Global connections, security, ethics and privacy issues will also be explored. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226 and EDUC 229
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 232
Visionary Leadership in Educational Technology
This course focuses on technology planning in educational settings. More often than not school leaders are grown from within their organizations. Educators need to understand decision making from a leadership perspective. Students will develop a technology plan for their school or district, conducting all aspects of the planning process including interviews, needs assessments, professional development, and budgeting. To complete this, students will engage with various stakeholders gaining multiple perspectives involved with leadership. Initiatives such as Future Ready and how leaders learn will be explored. This course is part of an approved set of courses that fulfill the requirements leading to the Illinois State Board of Education (ISBE) Endorsement for Technology Specialist. Writing assignments, as appropriate to the discipline, are required.
Grade of C or better in EDUC 226
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Education (EDUC) 260
Principles of Practice in Elementary Education
Organizational procedures, curriculum, principles of classroom management, and the role of the teacher in stimulating learning. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Education (EDUC) 269
Practice in Elementary Education-8 Wks.
Students spend 20 hours per week, under supervision, as a teacher aide in primary grade classroom, 8 or 16 weeks; course includes 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 102 and 107 and EDUC 256 and Consent of Department Chairperson.
2 Lecture Hours. 20 Laboratory Hours. 3-6 Credit Hours.
Offered At: KK, OH

Education (EDUC) 277
Philosophy
Comparative study of philosophical views on the relationship of education to political institutions, social processes, material conditions and individual ideas. Designed primarily for future teachers; open to all students. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Education (EDUC) 299
Special Topics Education
Special Topics in Education will be discussed. New developments in research and practice including the use of technology in the classroom will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Observation hours made in an educational setting may be required for this course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
1-4 Lecture Hours. 1-4 Credit Hours.
Offered At: KK, TR
Repeatable: Yes, up to 4 times

Electronics (ELECTRN)

Electronics (ELECTRN) 116
Basic Electronics Dc/Ac
Beginning course covering fundamentals in advanced electronics; basic laws of alternating and direct current circuit theory and operation of electronics devices and circuitry; including operation of modern electronic test equipment in practical laboratory application. This course covers essentially the same material as covered in Electronics 101 and Electronics 102 but in an accelerated, one semester approach. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: TR

Emergency Medical Technician (EMT)

Emergency Medical Technician (EMT) 100
Emergency Medical Technician - First Responder Training
This course developed by the United States National Highway and Traffic Administration (NHTSA), provides training in basic emergency care treatment for the first person at an emergency scene. The Frist Responder/Emergency Medical Responder is able to function within the Emergency Medical Service (EMS) system and is a vital link in the chain of the health care team helping to deliver out hospital emergency medical care. This curriculum emphasizes skills necessary for an individual to provide emergency medical care with a limited amount of equipment. Students will develop basic skills in patient assessment and emergency medical care procedures.
Placement examination or successful completion of English 96
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 101
Emergency Medical Technician-Basic
This course is developed in accordance with the United States National EMS Education Standards and the NHTSA National EMS Scope of Practice Model for EMT instruction. It focuses on developing the knowledge, skills and abilities that will allow each student to recognize the nature or extent of a patient's condition and to administer appropriate emergency medical care to stabilize the patient's condition, lift, move, position and otherwise handle the patient to minimize discomfort and prevent further injury and transport them safely to the proper medical facility. It is designed for individuals seeking to further their career in emergency medicine. Students frequently continue their education and go on to become paramedics, nurses and physicians. After successful completion, students may sit for the EMT Licensing Examination. Writing assignments, as appropriate to the discipline, are a part of the course.
Eligibility for ENGLISH 101 or successful completion of EMT 100 with a C or better.
4 Laboratory hours. 6 Lecture hours. 8 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 212
Essentials of Paramedic Medicine I
This course provides a comprehensive introduction to the roles, responsibilities, and critical skills required of a paramedic in emergency medical services. Students will explore foundational concepts in prehospital emergency care, focusing on the systematic assessment, management, and stabilization of patients in various medical situations. Emphasis is placed on the development of strong clinical decision-making abilities, effective communication with patients and healthcare teams, and the application of evidence-based practices in real-world scenarios. The course follows the U.S. DOT Guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the EMT-P Paramedic Program; Concurrent enrollment in EMS 222; Current EMT-B Illinois State License and consent of the Program Director.
9 Lecture hours. 9 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 213
Essentials of Paramedic Medicine II
This course is a continuation of EMT 212 and builds upon the foundational knowledge and skills acquired in the previous course. Designed for students advancing in the paramedic training program, EMT 213 focuses on the advanced assessment, management, and stabilization of a wide range of patient conditions, with an emphasis on high-acuity cases in both medical and trauma emergencies. Students will deepen their understanding of complex pathophysiology, refine their clinical decision-making skills, and learn to implement advanced interventions across diverse scenarios. This course follows the United States Department of Transportation Guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of EMT 212 and EMT 222. Concurrent enrollment in EMT 224
9 Lecture hours. 9 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 222
Paramedic Medicine Practicum I
This course provides the student the opportunity to focus on the integration of the principles learned in EMT 221 and apply this knowledge into practical application. Includes: direct patient care; patient simulation, clinical rotations and ambulance ride time with the Chicago Fire Department. This course follows the United States Department of Transportation Guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in EMT 221
4.5 Clinical hours. 6 Laboratory hours. 2 Lecture hours. 5.5 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 224
Paramedic Medicine Practicum II
This course provides the student the opportunity to focus on the integration of the principles learned in EMT 221, 222 and apply this knowledge in practical application. This course includes direct patient care; patient simulation, clinical rotations and ambulance ride time. This course follows the United States Department of Transportation guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of EMT 221 and EMT 222. Concurrent enrollment in EMT 223
9 Clinical hours. 6 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: MX

Emergency Medical Technician (EMT) 227
Paramedic Medicine Field Internship
EMS 227 is the capstone course in the EMT-P program offering supervised ride time with an approved preceptor on an ALS Chicago Fire Department Ambulance. This class provides the opportunity for each student to integrate knowledge, clinical practice, critical thinking/judgment and the ability to serve as a team leader in a variety of pre-hospital emergency situations throughout the city of Chicago. In conjunction with this direct patient care opportunity, students will participate in weekly seminars, which is a group learning opportunity designed to integrate their pre-hospital field learning experiences with critical medical content previously mastered in EMT-P 221, 222, 223 and 224. Written assignments (including Run Reviews and Patient Care Reports), as well as documentation of practiced clinical skills in the pre-hospital environment are required.
Successful completion of the core curriculum (EMT 221, 222, 223 and 224). Re-entry students are considered on an individual basis consistent with the Region XI re-entry policy.
3 Lecture Hours. 6 Laboratory Hours. 6 Credit Hours.
Offered At: MX

Engineering (ENGR)

Engineering (ENGR) 100
Elements of Engineering Drawing
Drawing survey course for students in technical and engineering science major programs. Study of more advanced software "AutoCAD Mechanical Program"; also draw geometric figures, multi-view drawings, pictorial drawing, charts and graphs with emphasis on graphic elements of machine parts drawing. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Engineering (ENGR) 110
Introductory Drafting
For students in non-technical and non-engineering science major programs. Learn to use "AutoCAD general program" to draw geometric figures, multi-view drafting, pictorial drawing, charts and graphs. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: TR

Engineering (ENGR) 111
Engineering Success Seminar
A course that surveys engineering and engineering computer science professions, their relationships to other professions, the roles and responsibilities of practitioners, and issues of professional ethics. This course introduces students to various specializations, and the expectations of college, and it provides support in the development of personal and professional skills that promote success in college and careers. Students will also learn the importance of taking personal responsibility for their academic and professional choices. Writing assignments, as appropriate to the discipline.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, TR, WR

Engineering (ENGR) 115
Engineering Communications-Blueprint Reading
For students in technical and non-technical curricula; principles and practices involved in interpretations of engineering graphics communications; emphasis on machine and structural graphic communications. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Engineering (ENGR) 131
Engineering Graphics & Intro to Design
Graphics, both manual and computer-aided drafting and design. Introduction to design techniques in graphics and multi-view drawing, auxiliary views, selecting, tolerance dimensioning, and technical sketching. Writing assignments, as appropriate to the discipline, are part of the course.
ENGR 111 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, TR

Engineering (ENGR) 132
Descriptive Geometry
Theory of projections. Solution by graphical methods of problems concerning the relation of points, lines, planes, and surfaces. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 131, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Engineering (ENGR) 190
Computer Programming for Engineers
Introduces the use of high-level programming language in algorithm development and as a problem-solving tool in engineering; including basic data structures and algorithms, structured programming techniques, and software documentation. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 208.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, TR, WR
IAI: CS 911

Engineering (ENGR) 202
Advanced Drafting & Basic Machine Design
Application of fundamental stress analysis to design of complete machine units involving machine elements such as shafts, springs, gears and screws, mechanical properties of materials and their significance in design; and classification of fits, specification of materials in use, and the manufacturing processes. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 131, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: TR

Engineering (ENGR) 206
Elements of Mechanics-Statics
Rigid bodies, fluid statics, friction, moments of inertia, centroids, and virtual work. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235 and MATH 208 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Engineering (ENGR) 208
Strength of Materials for Architecture
Concepts of stress and strain relationships; analysis of elementary stress distributions and deformations; study of axial loading, shear and bending moment diagram, and bending theory application. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 206.
3 Lecture Hours. 3 Laboratory Hours. 3-4 Credit Hours.
Offered At: KK

Engineering (ENGR) 215
Electrical Circuit Analysis
Basic electrical circuits, nodal and mesh analysis, voltage and current laws, circuit analysis techniques and superposition, operational amplifiers, RL, RC, and RLC circuits, frequency response, resonance, AC power analysis, Laplace transform methods, and BJT logic applications. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in PHYSICS 236, MATH 209 and credit or concurrent enrollment in MATH 210
3 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: EGR 931L

Engineering (ENGR) 225
Introduction to Thermodynamics
Principle of energy transport and work; properties of substances and equation of state; first and second laws of thermodynamics, entropy, and equilibrium with applications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235 (Engineering Physics I) and MATH 208 (Calculus and Analytical Geometry II), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX, OH, WR

Engineering (ENGR) 250
Engineering Projects
Projects of experimental and analytical nature to stimulate creativity; recommended scheduling and integrating subject material with selected engineering courses. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGR 202, or Consent of Department Chairperson.
1-2 Lecture Hours. 1-2 Credit Hours.
Offered At: DA, KK

English (ENGLISH)

English (ENGLISH) 96
Aligned Reading and Composition
ARC is an integrated reading and writing course designed to increase students' critical thinking, reading, and writing abilities and to promote their academic literacy for long-term success. To meet these ends, this course provides a structured, rigorous learning environment that nurtures student engagement through a shared, sustained classroom experience, and it fosters collaboration in a curriculum that respects students' individuality and humanity and that prepares them to meet college-level expectations. It also encourages students to invest in a network of support services and resources to enhance long-term academic and professional success. There will be extensive reading and analysis of college-level texts, frequent essay-writing, relevant discussion, and collaborative work. The course immediately precedes the General Education Communication sequence of English 101 and 102. Writing assignments, as appropriate to the discipline, are part of the course.
Placement into ARC as determined by the CCC Placement Test, the RTW (Read to Write), successful completion of the course immediately preceding ARC in the course sequence based on departmental, faculty-approved assessment, or Consent of Department.
6 Lecture hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

English (ENGLISH) 97
Written Communication Skills
This course provides additional support to English 101 students who elect it or, based upon the final assessment in English 096 (or an equivalent course), exhibit that they need it. The course emphasizes critical thinking, reading, and writing appropriate to academic literacy. Writing assignments, as appropriate to the discipline, are part of the course.
CCCRTW score of 5+, a grade of C or better in ENGLISH 96/INTCOMM 100/ BOTH ENGLISH 100 and READING 125, or consent of department. All students enrolled in a section of ENGLISH 97 MUST also register for the corresponding section of ENGLISH 101.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

English (ENGLISH) 98
Composition
Elements of reading, writing and speaking basic English. Writing assignments, as appropriate to the discipline, the course.
Eligibility for ENGLISH 98 by placement test scores or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

English (ENGLISH) 100
Basic Writing Skills
Emphasis on individual expression in paragraph form, sentence clarity through knowledge of sentence structure, and correct word forms. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 100, or Grade of C or better in ENGLISH 98, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

English (ENGLISH) 101
Composition
Development of critical and analytical skills in writing and reading of expository prose. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or RTW, ACT, SAT, GED, or HiSET test scores, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: C1 900 GE: Communications

English (ENGLISH) 102
Composition
Continuation of English 101. Introduces methods of research and writing of investigative papers. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: C1 901R GE: Communications

English (ENGLISH) 105
Business Writing
Fundamentals of basic forms of business correspondence. Writing assignments, as appropriate to the discipline, the course.
Grade of C or better in ENGLISH 101 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR, WR

English (ENGLISH) 107
Report Writing
Letters and reports, methods of collecting and organizing data, and methods of presenting facts and ideas effectively. Writing assignments, as appropriate to the discipline, are part of the course.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, KK, MX, WR

English (ENGLISH) 111
Introduction to Technical Communication
Introduction to patterns of writing used in reports and letters for business, industry and technology. The course introduces many different approaches to solving specific communication problems and emphasizes critical thinking skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101 or consent of department chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

English (ENGLISH) 150
College Newspaper
News reporting and writing, feature writing, makeup and editorial work; discussion of problems of policy and newspaper. Lab work correlated with publication of college newspapers. Students will carry out all the tasks involved in the writing, publication and distribution of the college newspaper. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four hours will be counted toward graduation.
1 Lecture hours. 1 Credit Hours.
Offered At: HW, KK, TR, WR
Repeatable: Yes, up to 4 times

English (ENGLISH) 151
News Reporting And Writing
Survey of journalism, including news reporting and writing, feature writing, makeup and editorial work, business and advertising problems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR, WR
IAI: MC 919

English (ENGLISH) 152
Intro To Mass Communication
Scope of modern journalism and dominant theories of communication; influences of the media in today's society. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: MC 911

English (ENGLISH) 197
Communications Skills
This course provides additional support to English 101 students emphasizing critical reading, academic writing, and standard English grammar. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR

English (ENGLISH) 201
Advanced Composition
Intensified work in expository and argumentative writing for students who need to improve writing skills for professional careers. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 102.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, MX, TR

English (ENGLISH) 207
Writing the Screenplay
This class covers the principles of writing for film. The journey from idea conception to script completion will be covered in detail throughout the course. Peer workshops, where scripts written by students are evaluated, will be an important feature of the class. An examination and discussion about screenplays from the canon of American film will also be discussed as a way to demonstrate competence in screenwriting. The students' final work will involve successful completion of a short film or the first act of a feature film. Writing assignments as appropriate to the discipline are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, WR

English (ENGLISH) 241
Creative Writing
Students will understand the structure and elements of narrative writing, concentrating on the writing of poetry, drama, and fiction. Students will demonstrate an understanding of the critical terminology of the creative writer. A minimum of 25-30 finished pages of original work is recommended. Journals, a midterm, and a final exam may also be required.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

English (ENGLISH) 243
Creative Writing, Fiction
Students will understand the structure and elements of fiction and the writing process, produce fully-developed works of fiction, and demonstrate an understanding of the critical terminology of the creative writer. Students will experiment with different approaches to plot, point-of-view, dialogue, voice, sequence and structure. A minimum of 25-30 finished pages of original work is recommended. Journals, a midterm, and a final exam may also be required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, MX, TR, WR

English (ENGLISH) 245
Creative Writing, Poetry
Students will understand the structure and elements of poetry and the writing process, produce fully-developed works of poetry, and demonstrate an understanding of the critical terminology of the creative writer. Students will experiment with different approaches to form, voice, narration, imagery, translation, creative response, and revision. A minimum of 200-250 finished lines of original work is recommended. Journals and exams may also be required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

English (ENGLISH) 247
Creative Writing, Non-Fiction
Students will explore the structure and elements of non-fiction works of literature and the writing process, produce fully developed works of non-fiction, including memoir, literary non-fiction, and personal essay, and demonstrate an understanding of the critical terminology of the creative writer. Students will experiment with different approaches to the elements of the non-fiction structure, including topics, voice, research, and rhetorical devices. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

English (ENGLISH) 276
Feature Writing for Newspapers & Magazines
This course teaches feature writing for newspapers and magazines. Study and applied skill emphasize idea development for the extended feature article,
Grade of C or better in ENGLISH 101
3 Lecture hours. 3 Credit Hours.
Offered At: HW, TR, WR

English (ENGLISH) 299
Special Topics In English
Selected topics in English for students interested in further developing their understanding of specific authors, movements, genres, styles of writing, and forms of language; emphasis on linguistic structure, social contact, and interpretation. Writing assignments, as appropriate to the discipline, are part of the course.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, OH, TR, WR
Repeatable: Yes, up to 4 times

Entrepreneurship (ENTRE)

Entrepreneurship (ENTRE) 201
Introduction to Entrepreneurship
The interdisciplinary course introduces participants from various disciplines to the concept of sustainable entrepreneurship, a manageable process applicable across careers, work settings, and time. The course focuses on building entrepreneurial attitudes and behaviors that will lead to creative solutions within the business community and other organizational environments. Course topics include the history of entrepreneurship, the role of entrepreneurs and intrapreneurs in the 21st century global economy, and opportunity identification. The course will examine elements of creative problem-solving, development of an enterprise concept/model. Examination of feasibility studies, and the social/moral/ethical implications of entrepreneurship. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 118, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR, WR

Entrepreneurship (ENTRE) 202
Opportunity Recognition and Development
Participants will learn techniques and processes leading to opportunity (value) recognition to include the assessment of target market, current economic, social, and political climate that provide value opportunities for entrepreneurial ventures. Entrepreneurial opportunities will be assessed relative to personal strengths and weaknesses, financial, professional, social, and personal goals. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 118, and Grade of C or better in ENTRE 201, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR

Entrepreneurship (ENTRE) 203
Entrepreneurial Accounting & Finance
An advanced entrepreneurial course structured to expose participants to accounting and financial methodologies in order to assess or predict the financial performance of their enterprise. Building upon their business concepts or existing enterprise, participants will be introduced to core financial and managerial accounting concepts: financial analysis techniques will enable them to prepare short and long-term financial operations plans, including cash requirements for enterprise startup and ongoing operations. Participants will be trained to use computerized accounting software as part of a managerial tool kit to support operation assessment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 118 and Grade of C or better in (ENTRE 201, and ENTRE 202), or Consent of Dept Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: KK, OH, TR, WR

Entrepreneurship (ENTRE) 204
Entrepreneurial Marketing & Sales
Introduces participants to marketing and personal selling strategies designed to support entrepreneurial development and growth. Participants will develop a theoretical and practical understanding of key marketing and sales strategies, including competitive product/services pricing, product/service promotion and distribution, customer and supplier qualification and the closing of sales transactions. This course will utilize the lecture and presentation format supplemented by interactive computer simulation to facilitate the participant's understanding of marketing and sales. Writing assignments, as appropriate to the discipline, are part of this course.
Eligibility for English 101 and Math 118 and Grade of C or better in (ENTRE 201, and ENTRE 202), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR

Entrepreneurship (ENTRE) 205
Law for the Entrepreneur
This course is a required course in the Entrepreneurship program it provides the student with an overview of the formation and operation of business enterprises, exposes the students to types of business organization, contract law, leases, intellectual property and employment law. Students will learn about sole proprietorships, general and limited partnerships, limited liability companies and corporations, the benefits and disadvantages of each type of entity as well as the formation, dissolution and record keeping for each of these entities. Students will apply this information to business plans and will learn about other fundamental areas of law affecting business entities. Writing assignments, as appropriate to the discipline, are part of this course. *Eligibility for English 101 and Math 118, or Consent of Department Chairperson.*
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR

Entrepreneurship (ENTRE) 206
Entrepreneurial New Venture StartUp
Participants will explore and identify problems that arise in the start-up phase of an entrepreneurial venture by developing a business plan/concept for a new venture and pitching it to a panel of judges. Alternatively, participants have the option to explore and identify the obstacles to success that occur while managing and operating a business venture in a computer-simulated environment. Writing assignments, as appropriate to the discipline, are part of the course. *Grade of C or better in (ENTRE 201, 202, 203, 204, and 205), or Consent of Department Chairperson.*
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, TR, WR

Environment Studies (ENVR ST)

Environment Studies (ENVR ST) 101
Man & Environment I
Interdisciplinary study of humans, the environment and their interrelationships, including resources, processes, wastes, growth, change, values and individual responsibility and involvement; emphasis of ecology of Chicago metropolitan environment; individual in relation to urban systems and urban systems in relation to world environment. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: TR, WR
IAI: L1 905 GE: Life Sciences

Environment Technology (ENVR TC)

Environment Technology (ENVR TC) 104
Energy Systems Fundamentals
Course covers the basics of building envelopes, HVAC, lighting, insulation, glazing, plumbing and electrical systems, construction materials, and the surrounding environment. Incorporates blueprint/design fundamentals. Focus on construction engineering concepts. Introduces LEED and Energy Star programs, relevant environmental, health and safety principles, impacts, and regulatory implications. Provides a broad overview of energy use and efficiency in structures and why it matters. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 107
Environmental Geology
This course will examine human interactions with geologic processes and hazards, including earthquakes, volcanoes, landslides, subsidence, hydrology, and flooding; occurrence and availability of geologic resources, such as energy, water, and minerals; principals of land-use planning, pollution, and waste disposal, environmental impact, health, and law. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR
IAI: P1 908 GE: Physical Sciences

Environment Technology (ENVR TC) 114
Renewable Energy Systems
An introductory, work-skills course on principles, concepts, applications, and installation of renewable and alternative energy technologies. Distinguishes between technologies appropriate to industrial / commercial settings versus those intended for residential structures. Covers renewable energy sources (solar, wind, geothermal, etc.) as well as alternative technologies utilized for building operations (microturbines, fuel cells, combined heat and power). Designed to prepare tradesman for the installation of various technologies. Up to five (5) off-campus field trips to alternative energy installations will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 121
Intro To Hazardous Materials Management
This course is an overview of the environmental impacts resulting from hazardous materials such as asbestos, and their mismanagement. Emphasis is placed on understanding the sources responsible for soil, water, land, and air pollution and the environmental laws governing our natural resources, including asbestos. Emphasis is placed on storage and treatment practices, monitoring, sampling and handling techniques, damaging effects on humans, ecology and environment, as well as governmental regulations concerning soil, water, and air. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 131
Environmental Health & Safety
Introduction to health and safety principles and skills needed to conduct field operations dealing with hazardous substances and meets initial training requirements of the Occupational Safety and Health Administration for workers engaged in hazardous waste operations. Course includes fundamentals of hazard recognition, toxicology, selection, use, and limitations of personal protective equipment, and safety procedures for conducting waste site use, and limitations of personal protective equipment. It consists of lectures and demonstrations, problem-solving exercises, discussions, and field exercises. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 141
Site Investigation & Sampling
Introduction to the techniques for monitoring and sampling of soil, water, and air. Emphasis is on site investigation procedures for contamination by hazardous materials; the use of specialized sampling equipment, its maintenance and repair, and record keeping for chain-of-custody and other documentation. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH, WR

Environment Technology (ENVR TC) 144
Building Systems Maintenance
Course is comprised of seven energy efficiency topics in building operations and maintenance. Building Operators Certification is a professional development program in the energy and resource efficient operation of buildings to qualify operations and maintenance staff for certification. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 151
Intro to Environmental Laws & Policies
This course introduces the student to the United States legal system, and to the doctrines and statues which regulate the production, treatment, transportation, and disposal of hazardous materials. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENVR TC 121.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 175
Hazardous Material Handling & Transportation
This course is designed to explore the regulations involving the transportation of hazardous materials and waste. It includes manifesting, generator and transporter standards, Department of Transportation hazard classes, placards, labels, markings, spill response, and driver responsibilities. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 190
Introduction to Animal Sciences
This is a survey course that will provide a firm biological and natural sciences background to students for understanding the principles important to the raising and management of livestock and companion animals. Students will have the opportunity to learn from animal industry leaders. The course is team taught to incorporate Animal Sciences instructors who are specialists in their subject matter areas. Writing assignments, as appropriate to the discipline, are part of the course.
Placement Test, or Grade of C or better in ENGLISH 101 and MATH 118 or higher.
4 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 191
Introduction to Crop Sciences
This course is designed to introduce students to the basic principles of plant growth, including human and environmental influences and the theoretical and practical application of agronomic principles to crop production. It also, serves as an introduction to basic agronomy revolving around crop production in the Midwest. The subject matter presented will provide an overview of major aspects of plant and soil management, pest control, and soil and water conservation issues and practices and how they affect growth and development. Writing assignments, as appropriate to the discipline, are part of the course.
The student should be capable of college entry level reading, writing, and mathematics.
4 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 192
Introduction to Soil Science
This course is designed to provide a comprehensive treatment of the basic principles of soils as they exist and interact in the environment. The course emphasizes soil as a natural body in nature, its formation, classification, chemical and physical properties. The course is designed to be equally useful to the non-agricultural production students, including those studying plant science, ecology and environmental science, and to students in curricula such as agronomy, crop science, soil science, horticulture and forestry. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of high school Chemistry is required.
4 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 193
Introduction to Horticulture
This course is designed to offer the student a general introduction to the principles of plant growth and development as they apply to the wide range of horticultural crops and the industries related to production, marketing and utilization of horticultural crops. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 204
Residential Energy Systems
Course addresses energy systems and energy efficiency technologies utilized in single- and multi-family residential building forms. Covers systems design and installation in both new construction and retrofit projects. Introduces field auditing techniques, environmental impacts (indoor air quality, asbestos, lead, voc's, radon, waste disposal issues, etc.), worker health & safety considerations, Energy Star certification, building commissioning procedures, and local regulatory requirements. An off-campus field trip to a residential "green" building/construction site will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 209
ADVANCED URBAN AGROECOLOGY
This course explores ways to apply the knowledge and skills acquired through the full sequence of classes. The student will be expected to identify a practicum location and spend 64 hours working (either with or without compensation) on projects associated with the organization and relevant to the course material. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENVR TC 109 and 3 ADDITIONAL LAB COURSES (ENVR TC 190, 191, 192, 193, CHEM 121, BIOLOGY 119, or BOTANY 201) or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 211
Recycling & Waste Minimizing
This course presents information on reuse and recycling of non-hazardous materials that dominate the municipal waste system. Waste reduction techniques for industrial processes that generate hazardous waste constitute the second half of the course. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 214
Institutional Energy Systems
Course covers the types of energy systems and energy efficiency technologies in use in commercial, industrial, and high-rise buildings. Includes design, installation, testing, assessment, and operation of technologies in these structures, and details the integration of system control components. Also encompasses a synopsis of environmental, health & safety for construction and post-construction activities, Energy Star, LEED certification, other pertinent programs and regulatory aspects. An off-campus field trip to an institutional "green" building/construction site will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 241
Environmental Sampling
This course is an in-depth study of the procedures and concepts used by EPA to investigate sites. Emphasis is on hazardous waste at both controlled and uncontrolled sites. The course will include the investigation of ground water, surface water, air, and soil contamination including health and risk assessments. This course is designed for students interested in the fields of environmental engineering and environmental science. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENVR TC 121 and ENVR TC 131.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 243
Environmental Analysis
This course will introduce the student to the foundations of environmental chemistry. Man-made and natural systems will be examined. Students will be encouraged to qualify and quantify the relationships between chemistry and the environment. United States Environmental Protection Agency analytical requirements will be surveyed using inductively coupled argon plasma, gas chromatography, mass spectrometry, ion chromatography and UV-Vis spectrometry, among other state-of-the-art analytical technologies. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHEM 121 and BIOLOGY 106.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: WR

Environment Technology (ENVR TC) 244
Energy Equipment Troubleshooting
A second tier course comprised of four (4) core classes in maintenance, operation, and diagnostics of electrical and HVAC systems, and two of four (2 of 4) possible electives in system specialty topics. Buildings Operator Certification is a professional development program in the energy and resource efficient operation of buildings to qualify operations and maintenance staff for certification. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: WR

ESL (Integrated) (ESLINTG)

ESL (Integrated) (ESLINTG) 98
Intermediate Integrated ESL
This is an integrated reading/writing course at the intermediate ESL Level designed to increase students' receptive and productive command of written English. The focus is on grammatical structures, as well as reading and composition at the intermediate level. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement Test or Consent of Department Chairperson.
6 Lecture hours. 6 Credit Hours.
Offered At: HW, KK, TR

ESL (Integrated) (ESLINTG) 99
High Intermediate ESL
This is an integrated reading/writing course at the high-intermediate ESL level designed to increase students' receptive and productive command of written English. The focus is on sentence structure, reading and authentic texts, and essay writing. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement Test or Grade of C or better in ESLINTG 98, or Consent of Department Chairperson.
6 Lecture hours. 6 Credit Hours.
Offered At: HW, KK, TR

ESL (Integrated) (ESLINTG) 100
Advanced Intergrated ESL
This is an integrated reading/writing course at the Advanced ESL Level designed to increase students' receptive and productive command of written English. There is a review of sentence structure and sentences connection; extensive reading of authentic texts, including academic ones; and frequent essay-writing. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement Test or Grade of C or better in ESLINTG 99, or Consent of Department Chairperson.
6 Lecture hours. 6 Credit Hours.
Offered At: HW, KK, MX, TR, WR

ESL Reading (ESLREAD)

ESL Reading (ESLREAD) 98
ESL Intermediate Reading
ESL READ 098 Intermediate academic reading skills for English Learners; focus is on comprehension and analysis of intermediate reading materials, mechanics, and academic vocabulary development. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement test, or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

ESL Reading (ESLREAD) 99
ESL High-Intermediate Reading
ESL READ 99 High-Intermediate academic reading skills for English Learners; focus is on comprehension and analysis of academic textbooks and other materials, mechanics and academic vocabulary development. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement test, or grade of C or better in ESLREAD 98, or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

ESL Speech (ESLSPCH)

ESL Speech (ESLSPCH) 98
ESL Intermediate Oral Communication
Development of oral communication skills for intermediate English Learners required for successful pursuit of higher education; basic interpersonal communication, small group discussion, speech organization and delivery. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement test, or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

ESL Speech (ESLSPCH) 99
ESL High-Intermediate Oral Communication
Development of oral communication skills for high- intermediate English Learners required for successful pursuit of higher education; intermediate interpersonal communication, small group discussion, speech organization and delivery. Writing assignments, as appropriate to the discipline, are part of the course.
ESL Placement test, or grade of C or better in ESLSPCH 98, or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

ESL Speech (ESLSPCH) 100
ESL Advanced Oral Communication
Development of oral communication skills for advanced English Learners required for successful pursuit of higher education; advanced interpersonal communication, small group discussion, speech organization and delivery. Writing assignments, as appropriate to the discipline, are part of the course.
ESL placement test, or grade of C or better in ESLSPCH 99, or consent of department chairperson or ESL instructor.
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Exrcise Sci and Sports Studies (ESSS)

Exrcise Sci and Sports Studies (ESSS) 101
Personal Trainer Preparation
This course introduces the knowledge and skills necessary to practice as a certified personal trainer for a variety of client populations, including the foundations of client interaction, the assessment of physiological, functional, and biomechanical aspects of human movement in the individual, and the design and supervision of strength and aerobic individual and group exercise programs. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 102
Personal Trainer Practicum
The purpose of this course is to provide practical experience for students enrolled in the personal fitness trainer program. The practicum experience is focused on the application and synthesis of the knowledge base skills of a personal trainer in a supervised commercial, community or clinical fitness setting in order to actively engage individuals of various ages and functional abilities. The course includes a campus-based lecture series that provides review and supplemental knowledge of the personal training profession.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
5 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 103
Allied Health Clinical Skills
Course Catalog Description: This course serves as an introduction to rehabilitation professions, the basic concepts governing rehabilitation practice, and skills performed by a rehabilitation aide. Course work includes orientation to various practice settings and scope of practice for a rehabilitation aide. This includes education and training, communication, patient care, basic medical terminology, mobility, assistive devices, activities of daily living, adaptive equipment, and therapeutic exercise. Completion of this course will give the student the skills to work as a rehabilitation aide under the supervision of a physical or occupational therapist or a physical therapist or occupational therapist assistant in a variety of practice settings including hospitals, skilled nursing facilities, inpatient/outpatient rehabilitation centers, and home care. Writing assignments, as appropriate to the discipline, are part of this course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 112
Functional Anatomy & Kinesiology
This course provides an organized study of human anatomy and kinesiology, the study of human movement. A working knowledge of both human anatomy and kinesiology are fundamental to student success in programs within the Exercise Science and Sports Studies (ESSS) department. Emphasis is placed on the integration of structure and function of the skeletal, articular, muscular, nervous, and circulatory systems. Upon completion, students should be able to identify skeletal anatomy including bony landmarks and muscular anatomy including origins, insertions, nerve innervations, vascular supply, and action. The concepts of locomotion, biomechanics, forces and levers will be introduced and how these apply to functional movement. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 206
Sports First Aid
This course will introduce students to the proper protocols to follow to prevent injuries and to administer sports first aid. Students will learn how to perform physical assessment, conduct emergency actions steps, and administer first aid. Topics presented will include control of bleeding, treatment for tissue damage, and unstable injuries, moving injured athletes and returning athletes to play. Successful completion of the course leads to partial certification through the American Sports Education Program (ASEP) Professional Education Program. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ESSS 101, or Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 209
Corrective Exercise Training
This course will present an evidence-based approach to corrective exercise, the components of a comprehensive solution, and the practical know-how to develop and implement integrated strategies to improve common movement impairments. Students completing this course will be prepared to take the National Academy of Sports Medicine (NASM) Corrective Exercise Specialist credentialing examination. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ESSS 102 and ESSS 110, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Exrcise Sci and Sports Studies (ESSS) 214
Exercise and Health Psychology
This course presents an overview of psychological, and social aspects as related to health promotion, health compromising and enhancing behaviors, stress management, coping strategies, coping with disease, coping with injury, the influence of social and physical environments on health, cognitive process of health information, health belief models, and models for behavior change. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in ENGLISH 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fine Arts (FIN ART)

Fine Arts (FIN ART) 103
Theater Arts
A cross-disciplinary approach to the performing arts. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Fine Arts

Fine Arts (FIN ART) 104
The World Of The Cinema
Study of various types of films; covers historical development, production methods, technique of films and critical evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, MX, TR, WR
IAI: F2 908 GE: Fine Arts

Fine Arts (FIN ART) 105
History of Painting, Sculpture & Architecture
Survey of art from pre-historic to contemporary. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW
IAI: F2 900 GE: Fine Arts

Fine Arts (FIN ART) 107
History of Architecture, Painting & Sculpture I
Survey of art from pre-history through the 17th century. Writing assignments, as appropriate to the discipline, the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: F2 901 GE: Fine Arts

Fine Arts (FIN ART) 108
Hist Of Arch Paint Sculp II
Survey of art from the 18th century to the present. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: F2 902 GE: Fine Arts

Fine Arts (FIN ART) 109
History Of Cinema
An international survey of the history of cinema, from the silent era to contemporary filmmaking, emphasizing a study of various film genres from around the world and innovations in film production that have had significant influence on film as an art form. Full-length films and film clips will be screened in class. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: F2 909 GE: Fine Arts

Fine Arts (FIN ART) 110
Opera And The Humanities
Opera as a medium in which the philosophic, aesthetic and psychological perspectives of composers and their eras are communicated; selected operas which parallel those offered in the community and present similar communication experiences will be studied; written material, radio broadcasts of operas, opera commentaries and opera performances will be utilized. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: F1 910 GE: Fine Arts

Fine Arts (FIN ART) 111
History of Photography
The historical development of photography as an art form from 1839 to the present, including critical analysis of types of photographs and aesthetic movements in photography. Examines photographs for their aesthetic and humanistic values, emphasizing photographs as expressions of ideas and beliefs of photographers within their cultural and social contexts. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: WR
IAI: F2 904 GE: Fine Arts

Fine Arts (FIN ART) 112
Dance Appreciation
Study of dance and expressive movement reflecting socio-cultural and artistic traditions from early civilizations to the present. Compares ancient, modern, and contemporary dance forms and examines the contributions of individual dancers, dance companies, and choreographers to global cultural heritage. The history and aesthetic standards of dance are explored through lecture and concert attendance. Writing, as appropriate to the discipline, is expected for this course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: F1 906 GE: Fine Arts

Fine Arts (FIN ART) 113
Issues in Documentary Film
This class will provide a broad survey of documentary films throughout film history. Issues of objectivity, truth, propaganda and mediation will be addressed through watching a variety of different documentary approaches. A movie will be shown in every class.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Fine Arts (FIN ART) 114
Film History I
An international survey of the development of cinema from its origins in the late nineteenth century through the beginning of WWII. Select films will be considered for their historical, technological, aesthetic, or ideological significance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, MX, OH, WR
IAI: F2 910 GE: Fine Arts HD Course

Fine Arts (FIN ART) 115
Film History II
An international survey of the development of cinema from WWII to contemporary practice. Select films will be considered for their historical, technological, aesthetic, or ideological significance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, MX, OH, TR, WR
IAI: F2 911 GE: Fine Arts HD Course

Fire Sci Mgmt/Fire Serv Op (FIREMGT)

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 101
Principles of Emergency Services
This course provides an overview of fire protection and emergency services; culture and history of fire science and emergency services, fire loss analysis, organizations of public and private fire protection services, and fire departments as part of local government. This foundation course includes introduction to fire protection, safety, tactics and safety. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 102
Strategies and Tactics I
This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. Basic procedures for suppression of fire; application to principles of building construction of human resources and equipment. This course will meet requirements of the Illinois Fire Protection Personnel Standards and Education Commission for Strategy and Tactics I. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 103
Fire Behavior and Combustion
History of fire sciences; theories and fundamentals of fire behaviors including how and why fires start, spread and are controlled. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 104
Occupational Safety & Health for Emergency Services
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluation and control procedures for emergency service organizations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 106
Fire Apparatus and Equipment Operator
Basic principles of fire apparatus construction, operation, and maintenance; consideration of pumps, pumper procedures and tests, aerial ladders and platforms, elementary hydraulic calculations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 111
Basic Incident Command
The Incident Command System provides a management framework for dealing with emergency situations. This course will provide the basic knowledge of what incident command is and how it functions, as well as the importance of having a strong central authority to oversee all aspects of responding to emergency situations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 197
Principles of Emergency Responder Safety and Survival
This course is designed to help students to identify and explain the sixteen life safety initiatives and explain the concepts of risk management and mitigation as it pertains to emergency services. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, 102, 103 or 104 or Consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 198
Strategies and Tactics II
Subject areas include strategic concepts in fire fighting, duties and responsibilities of command officers, incident command system (scene, manpower, apparatus, and Rapid Intervention Teams (RIT) management, multi-company operations, disasters, high-rise operations, critical incident stress, and tactical exercises. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 102 or Consent of Program Coordinator
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 200
Management and Leadership I
This course is designed to provide information and skills required to act in primary supervisory role with a focus on leadership in fire service. Topics covered include basic management principles and concepts, leadership styles and conflict resolution. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in or concurrent enrollment in FIREMGT 101, 102, or 103 or admission to the Fire Officer Training Program; or Consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 201
Fire Service Hydraulics
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 202
Building Construction for Fire Science
This course focuses on the study of the components of building construction related to firefighting, fire resistance and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 203
Fire Suppression and Protection Systems
This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 204
Management and Leadership II
This course focuses on the role and responsibility of a fire officer who may be in charge of a single company or station. The course provides information on leadership styles, communication, group dynamics, coaching and counseling and performance appraisal. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 200 or Consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 205
Chemistry of Hazardous Materials
This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 206
Management and Operations III
This course is the third in a four-part sequence focusing on the roles and responsibilities of a department fire officer, cultivating leadership styles and advanced management skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 204 or Consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 207
HAZWOPER
This course is designed to enable workers to operate safely at work sites were hazardous materials are being used, spilled or released. It complies with extensive OSHA regulations and training standards as set forth in federal code 29 CFR 1910.120, which is intended to ensure worker and responder safety. Students will be trained to respond in a defensive fashion for the purpose of protecting people in the immediate area, property and the environment, without actually trying to stop the release. Students will be taught how to contain the release from a safe distance, how to keep it from spreading, and prevent exposures. Some of the skills to be taught include the use of monitoring and detection equipment, filter respirators, self-contained breathing apparatus (SCBA), the donning and doffing of chemical protection suits, and the setup and operation of a decontamination corridor. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENG 101 based on prior coursework or CCCRTW, ACT, SAT, GED, or HiSET test scores and a grade of C or better in any: FIREMGT 101, FIREMGT 102, FIREMGT 103, FIREMGT 104, EMT 101, or higher EMT class, or Consent of Program Director.
1 Laboratory hours. 2.5 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 210
Principles of Fire Prevention
This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention, organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 211
Management Operations IV
This course is the fourth in a four-part sequence focusing on the roles and responsibilities of a department fire officer, cultivating leadership styles and advanced management skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 206 or Consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 212
Fire Investigation I
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire science interpretations, including recognizing and conducting origin and cause,preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 213
Fire Investigation II
This course is intended to provide the student with advanced technical knowledge on the rule of the law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and courtroom testimony. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 212 Fire Investigation I or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 220
Fire Instructor I
Methods and techniques of teaching for fire service instructors; principles of adult learning; teaching methodology; student assessment and evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in FIREMGT 101, or FIREMGT 102, or FIREMGT 103, or consent of Program Coordinator.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Fire Sci Mgmt/Fire Serv Op (FIREMGT) 221
Fire Instructor II
Methods and techniques for Fire Service Instructor II training will examine methods and techniques for planning, development, and conducting a Fire Service Training Program. This course is designed for leaders in the emergency services field who desire to analyze, design, implement and evaluate training methods and techniques. Writing assignments, as appropriate to the discipline, are part of the course. This course will meet requirements of the Illinois Fire Protection Personnel Standards and Education Commission for the Standard Level II Instructor Certificate.
Grade of C or better in FIREMGT 220 or Consent of Program Coordinator
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Foundational Studies ESL (FS ESL)

Foundational Studies ESL (FS ESL) 4001
English Academic Purposes I
This is the first course of six designed for non-native speakers of English who are in preparation for college. This introduces students to the American College system and focuses on oral language development.; speaking, listening, communication, reading skills, and written expression. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4002
English Academic Purposes II
This is the second course designed for non-native speakers of English who are preparing to enter college. This course is a continuation of oral language development--speaking, listening, and communication; reading skills, and written expression. Emphasis placed on listening skills, discussion, and vocabulary development. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4004
English Academic Purposes IV
This is the fourth of six courses designed for non-native speakers of English who are preparing to enter college. This course focuses on oral language development, skills for reading college textbooks, skills for writing about subject area content, interpreting graphically presented information, locating and using information, and using the college library and resource center. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4005
English Academic Purposes V
Study of the form and content of effective writing. Review of the essentials of written and spoken grammar and usage, and intensive practice in writing complete sentences, effective paragraphs and short essays/compositions. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4006
English Academic Purposes VI
This is the last of the six courses designed for non-native speakers of English who are preparing to enter college. This course focuses on critical reading skills, research skills, essary writing, grammar, and discussion of current events and subject areas topics. Writing assignments, as appropriate to the discipline are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4007
ESL: College Prep I
This is the first of six college preparation courses designed for non-native speakers of English who have complete English for Academic Purposes. Each course provides a foundation for study in college content areas. This course focuses on study skills, critical thinking and reading of historical and other nonfiction prose, and correctness of written expression. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4008
ESL: College Prep II
This is the second of six preparation courses designed for non-native speakers of English who have completed English for Academic Purposes. This course will continue to focus on the study skills and correctness of written expression and will apply critical reading and thinking skills to literature. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4009
ESL: College Prep III
This is the third of six concurrent college preparation courses for non-native speakers of English who has completed English for Academic Purposes. This course focuses on listening skills for academic purposes, note taking and study habits, writing to learn, and skills for intensive reading of factual matter. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4010
ESL: College Prep Iv
This is the fourth of six college preparation courses designed for non-native speakers of English who have completed English for Academic Purposes. This course continues to focus on listening skills for academic purposes, note taking and study habits, writing to learn, and critical thinking and reading. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4011
ESL: College Prep V
This is the fifth of six college preparation courses designed for non-native speakers of English who have completed English for Academic Purposes/ This course focuses on lectures by visiting college professors, skills for reading science materials, academic writing, and strategies for college success. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies ESL (FS ESL) 4012
ESL: College Prep VI
This is the last of six college preparation courses designed for non-native speakers of English who have completed English for Academic Purposes. This course focuses on lectures by visiting college professors, skills for reading psychology, sociology, political science, economics, and the humanities, and strategies for college success. Writiing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Foundational Studies Math (FS MATH)

Foundational Studies Math (FS MATH) 3000
Fundamentals of Math
This course provides a review of arithmetic skills and the basics of beginning algebra. Topics include but are not limited to: arithmetic operations and properties, laws of exponents, introduction to algebraic expressions, and real-world applications. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

Foundational Studies Math (FS MATH) 3001
Math Refresher I
This course is designed for students needing a review of basic math in order to take college level math courses. This course provides a review of the rules of addition, subtracting, multiplication and division using whole numbers and decimals. Writing assignments, as appropriate to the discipline, are part of the course.
Must be taken concurrently with FS MATH 3002.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 2 times

Foundational Studies Math (FS MATH) 3002
Math Refresher II
This course is designed for students needing a review of basic math in order to take college level math courses. This course focuses on percents, fractions, and integers. Writing assignments, as appropriate to the discipline, are part of the course.
Must be taken concurrently with FS MATH 3001.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 2 times

Foundational Studies Math (FS MATH) 3003
Math Refresher III
This course is designed for students needing a review of basic math in order to take college level math courses. This course will review powers and roots; basic concepts of ratio, proportion, probability, and basic geometry. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of FS math 3001/3002 with a grade of S, or ALEKS math score of 20+. Must be taken concurrently with FS MATH 3004.
3 Lecture hours. 3 Credit Hours.
Offered At: WR
Repeatable: Yes, up to 2 times

Foundational Studies Math (FS MATH) 3004
Elementary Algebra
This course is designed to prepare students to take college level algebra. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of FS math 3001/3002 with a grade of S, or ALEKS math score of 20+. Must be taken concurrently with FS MATH 3003.
3 Lecture hours. 3 Credit Hours.
Offered At: WR
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ)

Foundational Studies Reading (FS READ) 1001
Reading I
This is the first in the sequence of six courses designed to prepare high school students for college level course work. This course focuses on developmental skills essential to effective reading. Emphasis is placed on decoding, and word attack skills, and sight word recognition. Writing assignments, as appropriate to the discipline, are part of the course.
FS READ 1001 requires CCC RTW = 1 or CCC ESL or Write >=1 or Compass EWrite >=1 and Compass Read 1-49 or Asset Read 23-33 or CCCWRITE2 ESL or Writi >= 1.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, WR
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ) 1002
Reading II
This is the second course in a sequence of six courses designed to prepare high school students for college level course work. This course will help students develop additional skills essential to effective reading. The emphasis on decoding skills will continue. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, WR
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ) 1003
Reading III
This is the third course in a series of six designed to help high school graduates develop skills essential to effective reading. The emphasis on decoding skills will continue. Writing assignments, as appropriate to the discipline, are part of the course.
FS Read 1003 requires CCC RTW = 1 or CCC Write >=2 and Compass Read 1-49 and Co-Req of FS Write 2003
3 Lecture hours. 3 Credit Hours.
Offered At: HW, OH
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ) 1004
Reading, Writing, Critical Thinking I
This is the fourth in a sequence of six courses designed to prepare high school graduates for college level course work. This course will help students increase their reading, writing, and critical thinking skills. Writing assignments, as appropriate to the discipline, are part of the course.
CCCRTW 1+ and COR FS READ 1005
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR, WR
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ) 1005
Reading, Writing, Critical Thinking II
This is the fifth in a sequence of six courses designed to prepare high school graduates for college level course work. It is a continuation of Reading, Writing, and Critical Thinking I and is designed to help high school graduates increase these skills for use in college level course content areas. Writing assignments, as appropriate to the discipline, are part of the course.
Co-Req of FS Read 1004
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR
Repeatable: Yes, up to 2 times

Foundational Studies Reading (FS READ) 1006
Reading, Writing, Critical Thinking III
This is the last course in a six course sequence designed to prepare high school graduates for college level work. It is a continuation of Reading, Writing, and Critical Thinking II and designed to prepare students to read across all majors content areas from a basic knowledge base. Students will gain basic content knowledge proficiency in literature, history, fine arts, geography, physical science, life science, medicine, and health. Writing assignments, as appropriate to the discipline, are part of the course.
CCCRTW 1+
3 Lecture hours. 3 Credit Hours.
Offered At: HW, MX, OH
Repeatable: Yes, up to 2 times

Foundational Studies Writing (FS WRIT)

Foundational Studies Writing (FS WRIT) 93
Foundational Studies in Literacy
Foundational Studies in Literacy is an integrated reading and writing course with a focus on helping students develop core literacy skills. The course involves thoughtful discussion, engaged critical thinking, and the reading of various genres of appropriate-level texts. Students will practice effectively communicating clear thoughts at the sentence and paragraph level as well as in longer-form writing. In addition to reading and writing, students will practice and implement strategies for long and short-term goal setting, while improving study skills to prepare for long-term success in subsequent courses or career pathways. Writing assignments, as appropriate to the discipline, are part of the course.
Placement into FSL is determined by the CCC Placement Test, or consent of Department Chairperson in collaboration with the FSL Coordinator. CCC Reading to Write score of 1 is required.
6 Lecture hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Foundational Studies Writing (FS WRIT) 2001
Writing Mechanics I
This course is the first in a series of four designed for students who need to learn basic writing skills required for college level analytical writing. The course focuses on sentence structure and the mechanics of writing sentences and simple paragraphs. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, WR
Repeatable: Yes, up to 2 times

Foundational Studies Writing (FS WRIT) 2002
Writing Mechanics II
This is course two of four for students who need instruction in basic writing skills required for college level analytical writing. The course will cover writing paragraphs; how to organize thoughts and information; examining the source of information.; identifying problems of accuracy, specificity, and clarity, and writing explanations of the problem. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, WR
Repeatable: Yes, up to 2 times

Foundational Studies Writing (FS WRIT) 2003
Writing Mechanics III
This course is designed to improve the college writing skills of each student by understanding and implementing the writing process, mastering both paragraph and essay development--intro, body, and conclusion--and other type prose and reinforcing grammar and usage skills, as well as punctuation, capitalization, and dictionary usage. Writing workshop methods will be used to enhance students' personal writing styles, improve composition abilities, and build confidence. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

French (FRENCH)

French (FRENCH) 101
First Course French
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
HD Course

French (FRENCH) 102
Second Course French
Continuation of French 101. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or grade of C or better in FRENCH 101
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
HD Course

French (FRENCH) 103
Third Course French
Review and development of basic language skills, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or grade of C or better in FRENCH 102 or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, TR, WR
HD Course

French (FRENCH) 104
Fourth Course French
Review of language structure and interpretation of readings, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test or grade of C or better in FRENCH 103 or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, TR, WR
IAI: H1 900 GE: Humanities HD Course

French (FRENCH) 206
Intensive Oral Practice French
Practice in spoken language, fluency and accuracy. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or grade of C or better in FRENCH 104, Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, TR
GE: Humanities

French (FRENCH) 210
Modern Civilization & Culture French
Recent social, cultural, and historical trends, conducted in French and English. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: TR
GE: Humanities HD Course

French (FRENCH) 213
Intro To Modern Literature French
Selections from contemporary writings, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or grade of C or better in FRENCH 104, Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR
IAI: H3 916 GE: Humanities HD Course

French (FRENCH) 214
Readings In Literature French
Works from selected historical periods, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or grade of C or better in FRENCH 104, Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: H3 916 GE: Humanities

Game Design and Development (GAME)

Game Design and Development (GAME) 105
Game Design I
Fundamentals of creating enjoyable, playable, and challenging, and marketable games. Includes a survey of the basic components of a well-designed game: artistic and technological components with a clearly defined goal, set of game criteria, and rules for game play. Writing assignments, as appropriate to the discipline, are a part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 106
Game Development and Society
Discussion of how interactive entertainment affects and reflects society and culture, the psychology of gaming, how computer and video games change the way we think, learn, and interact, with important implications for how people live in the real world. Writing assignments, as appropriate to the discipline, is a part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 109
Creating the Art of the Game I
Focused study on the aspects of creating art for a video game using industry-standard software and developing a game art design bible. Writing assignments, as appropriate to the discipline, is a part of the course.
Grade of C or better in COM DSGN 101 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 153
Game Design II
Continued study in game design with a focus on concept development, design, and analogue prototyping. Using game design theory, analysis, physical prototyping, playtesting, and iteration, students learn how to translate game ideas and themes into gameplay for an overall player experience. Students will be exposed to the basics of effectively developing game ideas. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in GAME 105 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 160
Game Producing and Management I
Basic procedures in the game development workflow process from pre-production to product release. This course builds on the fundamentals of game development and the mastery of new tools and contribute to projects in class and outside of class with a special focus on project management, documentation, technical production, and digital asset management. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in ENGLISH 101 and GAME 105 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 209
Creating the Art of the Game II
Continued focused study on the aspects of creating art for a video game using industry-standard software, including integrating movement and modeling and further development of art assets. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in GAME 109 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 241
Gamification
Basic concepts in using motivational game design elements for non-game purposes to teach skills, change behavior, or raise engagement in corporate and educational settings. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in ENGLISH 101 and GAME 105 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 253
Game Design III
A continued focus of game concept development and design. Using game design theory, analysis, physical prototyping, playtesting, and iteration, students learn how to translate game ideas and themes into a playable digital game. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in GAME 153, or enrollment in the Unity Programming BC, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 254
Game Programming
Fundamental concepts and terminology of computer programming in C# for game development. Students will develop skills in designing and writing computer programs with no prior programming experience. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in MATH 118 or higher and GAME 153; or enrollment in the Unity Programming BC; or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 259
Business of Games
Introduction to the economics of gaming: the ways that games are funded, marketed, sold, and the relationships between publishers, developers, distributors, marketers, retailers, and other kinds of companies. Market and industry trends, licensing management, dynamics of company and product value, business differences between the major game platforms, legal issues that affect game development for developers and players—intellectual property and contract law—and the creation of a business plan will be discussed. Writing assignments, as appropriate to the discipline, are a part of this course.
Grade of C or better in ENGLISH 101 and GAME 253 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 260
Game Producing and Management II
Advanced procedures in the game development workflow process, from pre-production to product release. This includes common challenges, real-world challenges (problem cards and road blocks), building on the fundamentals of game management and focusing on project management, documentation, technical production, and digital asset management. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in GAME 160 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Game Design and Development (GAME) 299
Game Studio
Advanced development in creating a playable game or module. Coding, art, design, and production are parts of the intense course of study where in-class and outside class work enables students to overcome challenges in the game production process. People skills and collaboration with a team are implemented. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in GAME 254 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Gender, Women's, and Sexuality Studies (GWSS)

Gender, Women's, and Sexuality Studies (GWSS) 101
Introduction to Gender, Women's, and Sexuality Studies
This course examines feminist and queer roles, experiences, and achievements. This course is a transdisciplinary introduction to the field of gender, women's, and sexuality studies distilled from traditional, interdisciplinary, and transdisciplinary fields in the humanities, social sciences, natural sciences, archival sciences, and more. Students will investigate, research, learn about and discuss various historical events in feminist, queer, and additionally social justice-centered history, theories, and practices to apply their knowledge and critical inquiry to current events. Writing assignments as appropriate to the discipline, totaling at least 2500 words, is required.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, WR
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 102
Introduction to Gender and Sexuality Diversity
This course examines identity, representation, and power dynamics of gender and sexuality. This course is a transdisciplinary introduction to the construction and regulation of gender and sexuality throughout history in a variety of feminist and queer contexts established and emerging—distilled from traditional, interdisciplinary, and transdisciplinary fields. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 103
Introduction to Social Justice
Using feminist and queer lenses, this course is an introduction to principles and theories of social justice. This course is a transdisciplinary study of social justice histories, counterstories, theories, and practices anchored to social and political explorations from grassroots organizing to traditional, interdisciplinary, and transdisciplinary fields. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 201
Abolitionist Feminism
This course examines feminist and queer abolitionist movements and forms of changemaking and meditation. This course is a transdisciplinary study into feminist histories, theories, and practices anchored to frameworks, political quandaries, and genealogies of abolition and justice-involved legal and enforcement systems distilled from grassroots organizing as well as traditional, interdisciplinary, and transdisciplinary fields. In turn, students will learn how to apply their knowledge and critical inquiry to current events as well as explore abolitionist meditations as ways of knowing and being through practices of care and concern. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 202
Abolitionist Feminism through Liberative Expressive Arts and Research
This course centers justice-involved people's voices in various feminist and queer forms of creativity and research as a basis for discovery, change, and healing. This course is a transdisciplinary study into feminist histories, theories, and practices anchored to frameworks, political quandaries, and genealogies of abolition and justice-involved legal and enforcement systems distilled from grassroots organizing as well as traditional, interdisciplinary, and transdisciplinary fields. In turn, students will develop an understanding of life-affirming and freedom-centered expressive arts and research through practices of care and concern. Writing assignments, as appropriate to the discipline, are part of the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: HF 907D GE: Fine Arts, Humanities HD Course

Gender, Women's, and Sexuality Studies (GWSS) 203
Feminist and Queer Artivisms for Social Change
This course examines how feminist and queer creative interventions can influence social change. This course is a transdisciplinary study into feminist and queer histories, theories, and practices anchored to frameworks and political quandaries of artivism mitigating creativity and culture for social change. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: HF 907D GE: Fine Arts, Humanities HD Course

Gender, Women's, and Sexuality Studies (GWSS) 204
Pleasure Activism, Body Politics, and Translating Sexualities
This course examines feminist and queer theories of pleasure, body, and sexuality activism. This course is a transdisciplinary study into feminist and queer theories that rethink the limits of activism through the politics of pleasure, body, sexuality, and decolonization. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 205
Transnational Feminisms
This course explores the intersections of gender, race, class, and sexuality through a transnational feminist lens. This course is a transdisciplinary study into examining how global power structures, colonial legacies, and economic systems shape marginalized people's experiences across diverse cultural contexts. Students will analyze feminist movements, theories, and practices from various regions, emphasizing the importance of local knowledge and grassroots activism. Topics covered include global labor markets, migration, reproductive rights, and environmental justice, with a focus on how these issues affect people of marginalized genders differently across national boundaries. Students will engage critically with key debates in transnational feminist theory, including the tensions between universal rights and cultural relativism, and the challenges of building global solidarity while respecting local differences. Writing assignments as appropriate to the discipline, totaling at least 2500 words, is required.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 210
Ecofeminism
This course examines feminist and queer concepts and movements related to gender, environment, and social justice. This course is a transdisciplinary study into ecofeminist histories, theories, and practices anchored to environmentalist politics and intellect critique distilled from traditional, interdisciplinary, and transdisciplinary fields in the natural sciences, social sciences, and archival sciences among others. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 220
Queer Theory
This course examines queer identity, politics, and new forms of knowledge, cultural practices, and activism. This course is a transdisciplinary study into challenging norms that reproduce privilege and oppression, which at times exist in conjunction with gender and sexuality-based social constructions and regulations that maintain social hierarchies. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Gender, Women's, and Sexuality Studies (GWSS) 222
Queer Feminist Ethno-STEM Theory
This course examines feminist and queer principles in STEM fields. This course is a transdisciplinary study into feminist and queer histories, theories, and practices anchored to transnational, trans-species, and intersectional frameworks distilled from traditional, interdisciplinary, and transdisciplinary fields. Queer feminist technosciences, ludology (the study of various forms of play), and the relationship between culture and math are foregrounded in this course. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX
IAI: S9 902D GE: Social & Behavioral Sciences HD Course

Geography (GEOG)

Geography (GEOG) 101
World Geography
Economic, political, and cultural geography of the modern world; includes the people, raw materials, industrial resources, and trade connections of various parts of the earth. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S4 900N,S4 906 GE: Social & Behavioral Sciences HD Course

Geography (GEOG) 102
Economic Geography
Contemporary view of the economic interdependence of the nations of the world with emphasis on role of the United States, the dynamic changing future of geography, and its influence on world conditions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK
IAI: S4 903N GE: Social & Behavioral Sciences HD Course

Geography (GEOG) 201
Physical Geography
Physical environment of humans, their atmosphere, landforms, waters and other natural resources; emphasis on interrelationships of these areas and interaction of humans with their surroundings. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, WR
IAI: P1 909 GE: Physical Sciences

Geology (GEOLOGY)

Geology (GEOLOGY) 201
Physical Geology
Basic earth processes: weathering, erosion, deposition, mountain building, metamorphism, volcanism, and plate tectonics. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, MX, OH, TR
IAI: P1 907L GE: Physical Sciences

Health (HEALTH)

Health (HEALTH) 250
Health Education
Trends and issues of personal and community health; stress ways to maintain good physical and mental health; ecology, drugs, alcoholism, human sexuality, nutrition, disease and related topics. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR

Health (HEALTH) 251
First Aid
Standard American Red Cross course in first aid; principles and practices of first aid for all age levels; safety and accident prevention stressed; First Aid Standard and Advanced certificates awarded to students completing the course successfully. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Health Information Technology (HIT)

Health Information Technology (HIT) 101
Foundations of HIT
Course examines sources of health information and their relationship with health agencies. Course discusses the healthcare delivery system in the United States, professional and trade associations related to healthcare, ethical obligations, cultural competence, and diversity in healthcare related to age, race, sexual orientation, education, work experience, geographic location, and disability. Content includes study of origin and purpose, content, order, analysis and use of medical records, methods of compiling, numbering, retrieving, and retention of health information. It introduces students to the electronic health information systems and electronic health record environment including standards, applications, and capabilities of the EHR. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 eligibility, Eligibility of MATH 90 or MATH 98 or higher. Concurrent enrollment in or prior Completion of BIOLOGY 116 or BIOLOGY 226 and 227 with a grade of C or higher. Concurrent enrollment or prior Completion of CIS 120.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX
HD Course

Health Information Technology (HIT) 102
Medical Billing
Course provides instructions in health records and insurance processing procedures, application of third party and managed care policies, procedures, guidelines, including obtaining referrals and pre-certifications. Various claim forms along with filing guidelines are introduced. Focus is on correlating health information with billing procedures in different healthcare settings. Course covers in-depth study of Medicare insurance system with emphasis on knowledge of terminology and guidelines involved in claim filing process. Topics also include understanding of Medicare reimbursement policies, appeal rights, and CMS current efforts to curtail healthcare fraud and abuse. Additionally, introductory information about other major insurance programs, reimbursement methodologies, and federal healthcare legislation programs will be provided. Writing assignments, as appropriate to the discipline, are part of the course.
Eligible for ENGLISH 101 and MATH 90, enrollment or completion of HIT 101 and 110 with a grade of C or higher, enrollment or completion of BIOLOGY 116 or BIOLOGY 226 and 227 with grade of C or higher, enrollment or completion of CIS 120.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 103
Basic ICD-10-CM/PCS Coding
Course covers the ICD-10-CM/PCS classification system required to organize medical information for retrieval and reporting. Focus is on both the ICD-10-CM disease classification system and ICD-10-PCS classification system. Work focuses on acquiring skills in coding diseases and procedures and abstracting medical data. Hands-on experience in coding case scenarios assignments. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 eligibility. Eligibility for MATH 90 or MATH 98 or higher, Completion of BIOLOGY 116 or BIOLOGY 226 and 227 with a grade of C or higher, Completion of CIS 120 with a grade of C or higher, Enrollment or Completion of HIT 201.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 104
Basic CPT Coding
Course covers basic principles and guidelines of CPT coding in both hospital-based and ambulatory environments. Students develop skills in using CPT to report reimbursable services. Topics include the format of CPT and practice code assignment, ethical coding principles, encoding systems and software with practice applications. Writing assignments, as appropriate to the discipline, are part of the course.
Current enrollment in or prior completion of HIT 103 and HIT 201 with a grade of C or higher
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 105
Pharmacology for HIT Professionals
Course offers comprehensive coverage of pharmacology as it relates to clinical documentation in the health record. Content includes medical terminology, drug classifications, therapeutic use in diseases and conditions, adverse effects, and side effects. This course introduces the student to the basic skills that are performed by the medical assistant in the medical office. The course will emphasize the principles of pharmacology as they relate to medication administration in the medical office and clinic settings.
Grade of C or higher or concurrent enrollment in HIT 101 and HIT 110. Grade of C or higher in Biology 116 or Biology 226/227 or concurrent enrollment. Grade of C or higher in CIS 120 or concurrent enrollment.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 108
Advanced ICD-10-CM/PCS Coding
Course covers the ICD-10-CM/PCS classification systems required to organize medical information for retrieval and reporting. Focus in on both the ICD-10CM disease classification system and ICD-10-PCS classification system. Work focuses on mastering skills in coding diseases and procedures and abstracting medical data. Hands-on experience in coding site-specific cases. Writing assignments, as appropriate to the discipline, are part of the course.
Enrollment in or completion of HIT 221 with a grade of C or higher.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 109
Advanced CPT Coding
Course covers principles and guidelines of CPT coding in both hospital-based and ambulatory environments. Students master coding skills in using CPT to report reimbursable services. Hands-on experience in coding site-specific cases. Writing assignments, as appropriate to the discipline, are part of the course.
Enrollment in or completion of HIT 203 with a grade of C or higher.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 110
Medical Terms for HIT Professionals
This course present medical terminology through study of medical word roots, prefixes, and suffixes. Focus of the course in on the relationship among symptomatic, disease, and procedural terms. Writing assignments, as appropriate to the discipline, are part of the course.
ENGLISH 101 eligibility, Eligibility of MATH 90 or MATH 98 or higher. Concurrent enrollment in or prior Completion of BIOLOGY 116 or BIOLOGY 226 and 227 with a grade of C or higher. Concurrent enrollment or prior Completion of CIS 120.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 201
Fundamentals of Medical Science
Course provides introduction to medical science. Content includes study of nature and cause of disease, treatment and management of patients, and practical application of knowledge by health information management professional. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher or concurrent enrollment in HIT 103
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 203
Reimbursement Methodologies
This course introduces terminology, rationale and methodology used by third-party payers to determine the reimbursement for health care providers. Proper completion of the 1500 billing form and legal issues related to reimbursement will be discussed, as well as the role health information management plays in the charge master maintenance, reimbursement monitoring, revenue cycle. An overview of hospital and nursing home billing systems including proper submission of UB-92 billing forms will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher or concurrent enrollment in HIT 109
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 204
Health Statistics & Registries
This course is a survey of sources and uses of health data in the United States. It focuses on the collection of data, commonly used computations, and the presentation and reporting of data. The function and use of registries with emphasis on the Tumor Registry is studied. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher or concurrent enrollment in HIT 213 and HIT 214. Grade of C or higher or concurrent enrollment in HIT 222
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 213
Supervisory and Legal Aspects
Course studies impact of legal system on health information. Focus of this course is on the health record as a legal document, and effect of confidential communication laws, including HIPAA, on release of information and use of health information. Content of this course also includes management principles and supervisory role in healthcare organizations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or higher or concurrent enrollment in HIT 214
3 Lecture hours. 3 Credit Hours.
Offered At: MX
HD Course

Health Information Technology (HIT) 214
Quality and Performance Improvement
Course covers trends in healthcare quality control and performance, Performance Improvement (PI) foundations, fundamentals and principles. It reinforces understanding of PI concepts and issues with case studies and real-world scenarios. Hands-on practice through analytical and practical tools. Writing assignments, as appropriate to the discipline, are part of the course.
Corequisite HIT 213
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 221
Professional Practice I
Course contains planned and supervised clinical experiences in medical facilities. Opportunity to gain knowledge and skill in admission and discharge procedures, health and vital statistics, coding and abstracting, physician incomplete records, medical transcription supervision, cancer registry, billing site and long term care facilities. Twenty hours are optional practice experience hours for HIT 221. Writing assignments, as appropriate to the discipline, are part of the course.
Corequisite HIT 108
1.5 Clinical hours. 3 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Information Technology (HIT) 222
Professional Practice II
Continuation of HIT 221. This course provides opportunity to increase proficiency in coding skills, gain knowledge and skill in release information, patient care evaluation procedures, supervisory duties, and ambulatory care settings. Writing assignments, as appropriate to the discipline, are part of the course.
Current enrollment in HIT 204, HIT 213, and HIT 214 or prior completion with C or higher
3 Clinical hours. 3 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Health Professions (HEAPRO)

Health Professions (HEAPRO) 102
Health Career Studies
This course introduces students to the integral knowledge and professional skills required to be successful in healthcare careers. It prepares students for the rigor of healthcare career programs. It emphasizes understanding of the professional culture, retention and application of key foundational skills for professional healthcare practice, application of health information technology, and demonstrating cultural competence in interactions with others. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or consent of Program Director or Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Science (HLH SCI)

Health Science (HLH SCI) 101
Trends & Issues in Health Care Delivery
Introduction to health care delivery systems. Various health professions will be presented with emphasis on their primary role and how they interact or complement each other in delivery of health care services. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Science (HLH SCI) 102
Professional Medical & Health Care Practices
This course includes the study of acronyms and current professional jargon used in the medical and healthcare environment. Emphasis includes examination of data used in the delivery of healthcare and the characteristics of the healthcare workforce. Chronic illness and rehabilitative care will be examined as well as primary and specialty care in light of managed care. The process of accrediting and licensure of health science programs will be explored. A case study format involving inter-disciplinary health science programs will be reviewed, emphasizing systematic clinical applications. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Technology TC4 (334HLTH)

Health Technology TC4 (334HLTH) 122
Assessing Community Resources
This course will provide students with a brief overview of public health, its services and core functions in the protection and promotion of health and prevention of diseases and injury. It will include selected international, national and local health organizations that influence public health. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, 334HLTH 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Technology TC4 (334HLTH) 123
Community Health Problems
This course will focus on developing community leadership and capabilities to identify and address community health needs. This course is designed to help students develop self, client and community capacities to protect and improve health. Emphasis is on building individual and community participation in health through information sharing, informal counseling, social support, health skills instruction, community-wide assessments and promoting changes in negative behaviors. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and 334HLTH 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Health Technology TC4 (334HLTH) 124
Communicable Diseases
This course will provide students with an overview of communicable disease. It will provide the student with information on prevention, referral courses and treatment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CIS 120, and 334HLTH 121.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

History (HISTORY)

History (HISTORY) 111
History of American People To 1865
Exploration of the new world and its colonization; study of colonial life with emphasis on cultural heritage and the American Revolution; emergence of American nation traced through major trends and events in economic, political, cultural, social and intellectual affairs; includes past and present American cultural patterns. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 900 GE: Social & Behavioral Sciences

History (HISTORY) 112
History of American People From 1865
American history from the close of the Civil War to the present; political and economic developments, and social, intellectual and cultural changes. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 901 GE: Social & Behavioral Sciences

History (HISTORY) 113
United States Labor History
Labor movements development in the United States; worker issues such as wages, hours, working conditions are analyzed within their historical context; labor legislation, collective bargaining, social insurance, government intervention and prospects for organized labor are examined in their historical setting. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, TR, WR
GE: Social & Behavioral Sciences

History (HISTORY) 114
The Afro-American In American History
Role of the African-American in American culture and the historical traditions which give rise to current dilemmas confronting the American community: traces history of people of African heritage from the background of African culture and slave trade as they became a part of American life. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH
IAI: S2 923D GE: Social & Behavioral Sciences HD Course

History (HISTORY) 115
Afro-American History Since 1865
Reconstruction period after the Civil War; black politics in the new South; rise of Jim Crow sentiment; alliance of northern industry and southern Bourbonism; early northward migrations and urban culture; growth of civil rights organizations; W. E. B. DuBois and Booker T. Washington; blacks in World Wars I and II; post-war developments. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR, WR
GE: Social & Behavioral Sciences HD Course

History (HISTORY) 117
History Of Chicago Metropolitan Area
Evolution of Chicago metropolitan area from frontier outpost to modern metropolis; economic, social, political and cultural changes, analysis of institutions, discussion of current problems requiring solution in context of their historical background. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK
GE: Social & Behavioral Sciences

History (HISTORY) 118
Women In American History
Introduction to history of women in America, women's changing status in society; effect of major events and forces on women's lives; women's role in reform; discussion of recent problems in light of past developments. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW
GE: Social & Behavioral Sciences HD Course

History (HISTORY) 141
History of World Civilization to 1500
Definition and flowering of the classical civilizations of Eurasia, Africa, and the Americas. Emphasizes environment, cultural diffusion, and technology as shaping forces in world history; empires and trade links; the major religious systems to 1500 C.E. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 912N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 142
Hist World Civiliz Frm 1500
Effects of the military, scientific, industrial, and democratic revolutions on the balance of civilization after 1500 C.E. Topics include: the gunpower empires; the "Columbian exchange;" colonialism and the price revolution; capitalism and liberalism in global perspective; nationalism and dictatorship; the century of total war; the shifting world balance in the new millennium. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 913N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 201
The History of the Mexican People
This course will survey over a thousand years of Mexican history, beginning with the first migrants from Siberia, followed by the ancient Olmec, Toltec, Mayan and Mexica-Tenochca civilizations, and Spanish colonial rule. In addition, the course will examine the origin and development of Mexican culture. Regional, national and international laws and policies impacting Mexican and Mexican-American communities are analyzed. Concepts such as colonization, nationalism, and globalization's impact on Mexico's peoples are considered from a historical, social and economic perspective. Finally, the course will evaluate class inequalities in Mexico by analyzing the relationship of economics, gender, ethnicity and social class. Writing assignments will be required as appropriate for the discipline.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

History (HISTORY) 211
Problems In History
Methods of historical research; specific subject matter depends on faculty member in charge. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK
GE: Social & Behavioral Sciences

History (HISTORY) 212
History & Culture Of China
Study of Chinese history from Asian dynasties to the present. Political, economic, and cultural structure of traditional Chinese civilization, foreign relations, invasions, and consequences including the rise of the Communist Party and the emergence of modern Communist China. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, MX, TR
GE: Social & Behavioral Sciences HD Course

History (HISTORY) 213
American Civil Rights Movement
An exploration of the American Civil Rights Movement led by African Americans and their allies during the twentieth century United States, with attention given to structural and institutional racial inequality, movement philosophies and political strategies, relationships to other freedom movements, and the movement's legacies. Writing assignments, as appropriate of the discipline are part of this course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
GE: Social & Behavioral Sciences HD Course

History (HISTORY) 215
History of Latin America
Political and constitutional history of principal Latin American nations; European, American and Indian backgrounds, movements for independence, and social and economic movements pertinent to their present relationships with the United States. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 920N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 216
U.S. Latinx History
History, development and contributions of persons of Latin American origin or ancestry in the United States with emphasis on those of Mexican, Puerto Rican and Cuban background; includes pre-colonial origins in America, Europe and Africa; development of distinct cultures in the Western Hemisphere; migration patterns to the United States; development of communities in the United States and directions in the Chicago area. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 923D GE: Social & Behavioral Sciences HD Course

History (HISTORY) 225
Modern Middle East History
This course examines the history of the Modern Middle East since World War I by looking at the challenges posed by imperialism and the rise of nationalism in the area. The region studied encompasses the Arab world, Israel, Turkey, and Iran. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: S2 920N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 230
Ancient History
History of ancient Mediterranean civilization from its origins to the fall of the Roman Empire; background of Egyptian, Assyrian, and Babylonian civilizations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Social & Behavioral Sciences

History (HISTORY) 232
Modern European History 1500-1830
Medieval backgrounds, the Reformation and religious struggles, the development of nation-state, commercial revolution, colonization and European expansion. Includes the rise of Prussia and Russia and the French Revolution. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences

History (HISTORY) 233
Modern European History Since 1830
Recent European history, includes 19th century background, emphasis on the period following the Versailles Treaty of 1919. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences

History (HISTORY) 243
The Far East in the Modern World
Historical development of China, India, and Japan. Evolution of Oriental culture, economy, society, and government; the relation of America and the Far East, and the impact of Western ideas and institutions on the region. Survey of Philippines, Indo-China, Indonesia and Korea. Writing assignments, as appropriate to the discipline, are part of the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK
IAI: S2 920N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 247
African History to Colonial Period
Historical background of Africa south of the Sahara; pre-colonial and cultural development including tribal histories, impact of colonialism and development of African nationalism. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S2 920N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 248
African History - Modern Period
Growth of colonial government; the economic role of colonies; early opposition movements against European imperialism; the psychology of the colonizer and colonized; civil wars and independence. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR
IAI: S2 920N GE: Social & Behavioral Sciences HD Course

History (HISTORY) 250
Topics in American History
Selected topics in history for students interested in further developing and understanding specific periods, movements and leaders; emphasis on the social, political, economic, intellectual and philosophical events and implications. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, WR
GE: Social & Behavioral Sciences

Horticulture (HORTIC)

Horticulture (HORTIC) 101
Intro To Ornamental Horticulture
Plant structures, terminology and use of identification keys; study of culture and use of annuals, biennials, herbaceous perennials. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Horticulture (HORTIC) 104
Plant Propagation
Techniques used in reproducing plants, both from seed and vegetative parts; propagating units, factors affecting rooting, growth substances, rooting media and seed treatment; principles of heredity, structure of genetic material and mechanics of transmission, and importance of genetics in hybridization. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: OH, WR

Horticulture (HORTIC) 105
Identification of Herbaceous Landscape Plants
This course focuses on identification of herbaceous plants used in the landscape. Study the ornamental value, use and culture of annuals, biennials and perennials. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Horticulture program/plan 241.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: HW

Horticulture (HORTIC) 202
Landscape Design I
Aesthetic and economic importance of grounds improvement, residential and commercial; site analysis, requirements of landscape plans, scale drawings and landscape symbols; nursery classification, selection of plant materials and landscape construction. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: HW

Horticulture (HORTIC) 205
Arboriculture
Continuation of plants identification, covering use and culture of deciduous and evergreen trees and shrubs. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture Hours. 3 Credit Hours.
Offered At: HW

Hospitality Management (HMGT)

Hospitality Management (HMGT) 221
Introduction to Beverage
Overview of the three major categories of the beverage industry: beer, spirits and wine. Introduction to the distilling, brewing, wine-making, and bottling processes. Fundamentals of industry standards, state and federal regulations related to responsible alcohol service. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 222
Art of the Cocktail
Principles and practices of the art of constructing cocktails and knowledge of the history of classic cocktails and their evolution. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 223
Bar Concept Management
Introduction to various drinking establishments. The course also provides insight into principles, theories, concepts and practices related to bar planning, customers, management, staffing, and human resource matters. Writing assignments as appropriate to the discipline are also part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 224
Bar Administration and Operations
Instruction on the fundamentals of basic bar management, focusing on core operational considerations, including bar set-up and position, inventory, costs control, dispensing, and point-of-sale. Hands-on instruction in bar service preparation and duties, culinary collaboration, bar hygiene, appearance and etiquette, and equipment maintenance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 225
Advanced Beverage Seminar
The capstone course for the Bar Management program. Provides an in-depth study of beverage, customer service, and procurement processes and operations through immersion projects on budgets, business strategy, inventory management, and complete menus, leading to the creation of a beverage program. Writing assignments as appropriate to the discipline are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 724
Hospitality Management
This class focuses on management skills within the hospitality industry including topics such as leadership styles, training and development, work environment, communication and team building. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 806
Customer Service Fundamentals
This class has a defined focus on how to provide the service that is expected when a person is a guest at a hotel, restaurant, banquet hall, casino or other venue. It covers interactions with guests, responses to difficult situations, service recovery and how to develop better interpersonal skills that will lead to outstanding customer service. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 807
Hospitality Financial Management
Essential managerial accounting functions utilized in the hospitality industry. This class is meant to be a foundation for managers in the hospitality industry. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 808
Restaurant Operations
Fundamentals of basic restaurant management are covered in the course where students are exposed to the entry level front-of-house positions that create the core of operations to the management of those employees and beyond including customer service and financial management. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98.
1 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 810
Bar and Beverage Management
Foundations of creating and maintaining a bar business including equipment, liquor, wine, beer, food pairing, sanitation, employee management, purchasing, receiving and storage, and planning for profit. Emphasis on the importance of revenue generation through alcohol sales in a restaurant while placing a focal point on responsible alcohol service. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807,808, 330CUL 700,701,703,705,708 and 723, or Consent of Department Chairperson
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 812
Hotel and Lodging Operations
Fundamentals of basic hotel and lodging management are covered in this class where students will learn the duties and responsibilities associated with hotel operations. Departments explored include front desk, housekeeping, sales and marketing, engineering, food and beverage and accounting. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807, 808, 330cul 700,701,703,705,708, and 723 or Consent of Department Chairperson.
1 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 814
Hospitality Procurement
Comprehensive look at acquisition of goods and services starting from the buyer determining what is needed to the actual receiving of the goods purchased. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807,808, 330CUL 700,701,703,705,708 and 723, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 816
Introduction to Hospitality Marketing Principles
Fundamentals and foundations of hospitality marketing. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807,808, and 330CUL 700,701,703,705,708, and 723, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 830
Catering and Event Management
Students will learn aspects of effective planning which in turn leads to successful execution of events and will be exposed to menu design, room selection, cost control, pricing, contracts and managing an event. Sales and marketing, financials, food and beverage service, and staffing will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807,808, and 330CUL 700,701,703,705,708 and 723, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 835
Introduction to Casino Operations Management
As an introduction to casino organization and culture, this class will explore the history, systems and technology and marketing crucial to casino and gaming operations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 and MATH 98. Grade of C or better in HMGT 806,807,808, and 330CUL 700,701,703,705,708, and 723, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Hospitality Management (HMGT) 860
Hospitality Internship
This course is designed to provide employment skills as a concurrent and integral part of a student's educational program in hospitality, culinary and baking and pastry. Students are placed in an approved employment situation mutually agreed upon by the student college staff, and employer, with the opportunity of applying knowledge and being exposed to work methods and settings unavailable in the classroom. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CUL 701,703,705,708,723 or Grade of C or better in BKPS 767,768,769,770,771 or Grade of C or better in HMGT 806,807,808,812.
20 Laboratory hours. 4 Credit Hours.
Offered At: KK

Human Dev and Family Studies (HDFS)

Human Dev and Family Studies (HDFS) 201
Human Development and Sexuality
A study of the social and psychological aspects of human sexuality. Topics include sexual development, cultural influences, gender identity, sexual dysfunctions, love and relationships. Emphasis will be placed on the mental and emotional aspects of human sexuality as well as current issues. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 202
Intimate Relationships
An overview of theories and research related to intimate/romantic relationships as well as family members, friends, and professional. Students will be encouraged to think critically about the various components of healthy relationships including comparative research within self expectations and effects of such as perpetuated by the media and other sources. Topics include communication, conflict, love, stress, strains, and overall impact on relationships. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101 and CHLD DV 102.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 203
Family Development/Cross Cultural Perspective
Course includes information on families and culture through an examination of research on child development, child rearing across cultures, and issues of equity, power and privilege. Readings and discussion on how culture and context influence all aspects of development whereby students gain in-depth understanding of families and lifestyles, communication and conflict, domestic violence, dysfunctions within families and inter-generational families. Course also provides a knowledge base for family assessment, understanding one? s own family, tools to prepare one to work with families in a variety of settings and across the lifespan. Topics such as child rearing, language differences, racial identity, cultural traditions, and socio-economics status will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101.
3 Lecture hours. 3 Credit Hours.
Offered At: TR
HD Course

Human Dev and Family Studies (HDFS) 204
Family Life Education
Introduction to and history of the professional and practice of family life education, including needs assessment, evaluation of programs, understanding group process, and contexts of family life education. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DEV 101.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 205
Internship for Human Development
Participation in occupational area of study, work experience under supervision of both college and employer. Internship objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience at the site 15 hours per week. Writing assignments, as appropriate to the discipline, are part of the course.
Completed and accepted application, Grade of C or better in CHLD DEV 101 and 102, all courses in HDFS program including any special certificates.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 211
Principles of Human Services
This course provides a foundation in theory and principles of human services. The course will have a special focus on family-related human services. The course will provide the theoretical and practical underpinnings of human service work for those interested in serving families. Ten hours observing family-related human service work is required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CHLD DV 101 and ENGLISH 101.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 214
Basic Applications in Human Services
Human services professionals need to understand and implement behavior conducive work with individuals, families, and communities. Students will learn and apply ethical, professional, and culturally responsive behavior relevant to human services work. 20 hours observing family-related human services work is required. Writing assignments, as appropriate to the discipline, are part of the course.
Completed and accepted application, Grade of C or better on CHLD DV 101-1, CHLD DV 102, ENGLISH 101, and HDFS 211
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Human Dev and Family Studies (HDFS) 215
Practicum for Human Services
Principles of human services will be applied during human services work-experience. Students will apply and interpret theoretical, professional, and culturally responsive content knowledge in an approved human services site. Practicum objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience at the site 15 hours per week. There is a weekly 2-hour seminar discussion with classmates. Writing assignments, as appropriate to the discipline, are part of the course.
Completed and accepted application, Grade of C or better on CHLD DV 101-1, CHLD DV 102, ENGLISH 101, and all HDFS courses
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: TR

Humanities (HUM)

Humanities (HUM) 100
Critical Readings in Humanities
For students with little or no prior exposure to humanistic studies; an opportunity to improve and gain confidence in reading and writing skills in subject areas where creativity and imagination play a much greater part than they do in most basic skills courses. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Humanities (HUM) 105
The New World Of Mass Media
Analysis and evaluation of the strengths, limitations, impact and social media biases of both print and electronic mass media. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Humanities

Humanities (HUM) 107
Pop Cul-Mirror Of Amer Life
Interdisciplinary investigation of relationships between American life and popular culture; includes defining popular culture, and high culture; role of formulating popular culture in films, role of advertising in popular culture, stereotypes of the sexes and ethnic groups, role of sports in American life, popular music and its audience and television. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, OH
GE: Humanities

Humanities (HUM) 123
Intro To Arts & Ideas
Interdisciplinary introduction to the arts and ideas through the study of masterpieces past and present. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, WR
IAI: HF 900 GE: Fine Arts, Humanities

Humanities (HUM) 141
Afro-American Arts
Examination of African and Afro-American music, literature, art and philosophy, stressing African sources of Afro-American heritage and their contribution to Western culture. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Humanities HD Course

Humanities (HUM) 143
Intro to Latin American/Latino Studies
This course presents an interdisciplinary study of Latin American cultures, including Latino cultures in the U.S., from literary, artistic and philosophical perspectives. It explores various links between Latino cultures in the U.S. and other Latin American countries through the study of historical and artistic periods, major movements and integrated theories. Writing assignments, as appropriate to the discipline are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, MX, OH, TR, WR
IAI: HF 906D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 144
Gender and Feminisms in the Arts
This course is an interdisciplinary introduction to literary, visual, film, performing, and media arts in the humanities analyzed with an intersectional feminist lens. Students will explore philosophical, theoretical, and creative work by women, feminist, Queer, transgender, and gender non-binary creators and examine the ways in which gender intersects with race, ethnicity, sexuality, class, ability, and other aspects of identity in the creative work examined in the class. Writing assignments, as appropriate to the discipline, are required.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, WR
IAI: HF 907D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 145
Intro to Diversity/Ethnic Studies
This course presents an introduction to the broad field of diversity/ethnicity through the interdisciplinary study of art, music, literature, history, and philosophy. This course will emphasize the content, style, and historical context of the various diversity/ethnicity related artifacts, particularly those created by and featuring depictions of diverse/ethnic groups. The course will feature African American, Latino/Latin American, Native American, and European American artists, artistic expressions, and portrayals of these groups in the arts, by themselves and "outsiders" and the impact of these portrayals with the groups and society at large. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: HF 906D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 146
Gay, Lesbian, Bisexual & Transgender
The interdisciplinary interpretation of historic and contemporary creative works (art, drams, film, literature, and music) with Gay, Lesbian, Bisexual and Transgender themes, primarily by multicultural GLBT authors and artists of the Americas. Analysis of GLBT culture from the perspective of Queer theory. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: TR
IAI: HF 907D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 201
General Course I Humanities
Introduction to the interdisciplinary study of arts and ideas, with emphasis on principles of analysis and interpretation. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: HF 900 GE: Fine Arts, Humanities

Humanities (HUM) 202
General Course II Humanities
Continuing the interdisciplinary study of arts and ideas; with emphasis on principles of analysis and interpretations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: HF 901 GE: Fine Arts, Humanities

Humanities (HUM) 203
Arts of Contemporary America
Analysis and evaluation of major art forms of today - film, television, poster art, journalism, poetry, fiction, painting and music. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: HF 900 GE: Fine Arts, Humanities HD Course

Humanities (HUM) 205
World Literature I
Masterpieces of world literature including principal works from selected literary periods and traditions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: H3 906 GE: Humanities HD Course

Humanities (HUM) 206
World Literature II Existentialism
Introduction to Existentialist philosophers, dramatists, and novelists. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Humanities

Humanities (HUM) 207
The Great Books
For students who seek enrichment through acquaintance with formulation and ideas of Western civilization. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK
IAI: H3 907 GE: Humanities

Humanities (HUM) 208
Women In Creative-Performing Arts
Examination of the changing views of woman's nature, her relationship to man and to society as found in the creative and performing arts and philosophical works of a specific culture or cultures. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: HF 907D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 209
Latinxs in Chicago
This course presents an interdisciplinary study of Latinx cultures in and around Chicago, from literary, artistic and philosophical perspectives. It explores the representations of various Latinx communities in Chicago, as well as the impact these communities have had on the visual arts, literature, pop culture, media, and performance arts. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, MX, OH, TR, WR
IAI: HF 906D GE: Fine Arts, Humanities HD Course

Humanities (HUM) 210
Comparative Mythology
A comparative introduction to mythology throughout the world.
The emphasis is on the nature of mythology through the study of mythological themes in folklore, myth, and legendary narratives and the visual representation of those themes. The course includes non-Western and multi cultural components. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, TR, WR
IAI: H9 901 GE: Humanities HD Course

Humanities (HUM) 212
Non-Western Humanities
An interdisciplinary survey of significant intellectual and artistic achievements of non-Western cultures through selected works of literature, philosophy, visual art, music and other performing arts. This course transfers as Illinois Articulation Initiative general education generic course numbered HF 94N: Non-Western Humanities. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, TR, WR
IAI: HF 904N GE: Fine Arts, Humanities HD Course

Humanities (HUM) 215
The Art and Philosophy of the African Continent
African culture of the past and present including art, music, literature, history, language, political science and economics. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, OH
IAI: HF 904N GE: Fine Arts, Humanities HD Course

Humanities (HUM) 216
Athletics in the Ancient World
A survey of ancient events that emphasizes the role of sports in ancient societies. The course focuses on various aspects of athletics and provides a comparative examination of ancient and modern sports activities and athletic values. Some topics will include: sportsmanship in the ancient world, rules of the games, training and competing, women in ancient athletics, religion in ancient athletics, and athletics in ancient myth. Students will examine and discuss many types of ancient evidence, including readings in translation from several ancient literary texts, paintings, sculpture, and archeological remains. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

IBEW (432IBEW)

IBEW (432IBEW) 702
Electrical Circuitry
This course will include a study in circuitry used in the residential housing industry in the Chicago metropolitan area. Installation practices. Practical hands-on wiring skills such as splicing and termination will be taught. The students are expected to apply themselves, learn and accomplish entry levels of proficiency in these subject areas. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 703
Conduit Bending I
This course is designed to teach the student the various methods of bending conduit employed in the electrical construction industry. The focus of the course is on hand-type benders and methods of conduit installation utilized in the commercial, industrial and residential housing industry. Writing assignments, as appropriate to the discipline, are part of the course.
4.5 Laboratory hours. 2 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 704
Construction Technology
This course will include a study of common hardware and wiring materials used in the electrical construction industry. This course will include first aid, personal safety, and job site safety; the use of rope, knot tying, and basic rigging; drill gauges, drilling and tapping holes in metal, and drill sharpening; using knockout sets, hole saws, concrete anchors and fastening devices; and the use and care of hand tools, drill motors, hammer drills and grinding wheels. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 705
Print Reading I
Upon completion of this course the student will have gained a thorough knowledge of residential prints and their use with the National Electrical Code. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 706
Conduit Bending II
Upon completion of this course the student will have gained skills in advanced conduit bending techniques utilizing mechanical leverage benders and hydraulic benders commonly used in the electrical construction industry. Hand-operated and automatic cutting and threading devices will also be mastered. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 707
Fire Alarm Systems
Upon completion of this course the student will have mastered the basic concepts and theory of installation and maintenance of fire alarms systems and fire suppression systems currently in use in the electrical construction industry. Testing, troubleshooting and safety techniques through hands-on training and field simulated problems are developed. The course will also discuss the Chicago and National Electrical Codes as they pertain to the installation and maintenance of fire alarm systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 708
Motor Control Systems
Upon completion of this course the student will have mastered the basic concepts and theory of installation, operation, and maintenance of motor control devices commonly used in the electrical construction industry. Skills in testing, troubleshooting, and safety techniques will be developed through hands-on training and the use of field simulated problems. In addition, this course includes a discussion of the theory and the practical application of transformers as used in the electrical industry. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 709
Print Reading II
Upon completion of this course the student will have gained through knowledge of, commercial and industrial construction prints and their use with both the Chicago Electrical Code and National Electrical Code. Writing assignment, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

IBEW (432IBEW) 710
Programmable Control
Upon completion of this course the student will have mastered the basic concepts and theory of installation, operation, and maintenance of programmable control systems commonly used in the electrical industry. Programming techniques and hands-on training will be provided in the lab on Allen-Bradley systems PL5/20, PLC5/11, and SLC 5/03 CPU programmable controllers. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 711
Communications
The BICSI Installer level telecommunications cabling installation training is designed for individuals with 2 to 5 years of low voltage cabling experience. The class combines lecture with hands-on skills practice using tools and equipment provided in class. The following areas are covered: ANSI/TIA/EIA wiring Standards and the National Electrical Code. LAN cabling system characteristics and network topologies, media and media characteristics, transmission fundamentals, connectorization, grounding and bonding, pulling and terminating copper and fiber, testing and troubleshooting copper and fiber, splicing fiber, fire stopping site surveys and safety practices. There will be a final examination and a period of structured on-the-job training to be completed at the student?s workplace. Writing assignments, as appropriate to the discipline, are part of the course.
4.5 Laboratory hours. 2.5 Lecture hours. 4 Credit Hours.
Offered At: DA

IBEW (432IBEW) 712
HVAC Systems
Upon completion of this course the student will have mastered the theory of thermal dynamics and the processes used in the heating, ventilation and air-conditioning systems. Hands-on training is an integral part of the course. The course will cover skills in piping, brazing, soldering, and the E.P.A. standards for charging, and evacuating air-conditioning and refrigeration systems. This course meets the Refrigeration Service Engineers Society Technician Certification Standard. The midterm examination shall be the R.S.E.S. Technician Certification test. It will be mandatory to pass the R.S.E.S. Technician Certification test before becoming a journeyman. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 713
Instrumentation
Upon completion of this course the student will have mastered the basic concepts and theory of installation, operation, and maintenance of instrumentation control process commonly used in the electrical construction industry. The student will master the theory of flow, pressure, temperature, and level. Calibration techniques are taught through hands-on training, bench testing, and lab work with a variety of instruments, the Fluke 702 Calibrator and the Rosemount Communicator. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 714
Technical Math I
Upon completion of this course the student will have mastered the calculations and applications of the formulas used daily in the first year apprentice course of study and in the electrical construction industry. Writing assignment, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

IBEW (432IBEW) 715
Technical Math II
Upon completion of this course the student will have mastered code calculations and problem solving techniques used in the application of Ohm?s Law in accordance with the National Electrical Code. Writing assignment, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

IBEW (432IBEW) 716
Electronics
This course covers basic electronic and its application to the communications industry. The course will cover basic electric theory, direct current, alternating current, Writing Ohm?s Law, the use and calibration of electrical test equipment, electrical safety, soldering skill, series, parallel and combination circuits, and electronic components. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 717
Structured Wiring
This course provides the student with a thorough knowledge of the wiring materials commonly used in the communications industry. This course provides instruction on personal safety, jobsite safety and shop safety as it applies to the communications industry. In addition, there will be instruction in applicable EIA/TIA standards, BICSI requirements, media characteristics, transmission characteristics, fire protection, documentation, grounding, bonding, electrical protection, and other relevant industry practices. Upon satisfactory completion of the course, the student will be eligible for the BICSI Level I Installer Examination. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 718
Integrated Systems I
This course will introduce the student to the basic concepts and theory of digital and analog based audio communications systems. This course will cover skills in installation, balancing, testing and troubleshooting of audio communications equipment. Included are constant voltage audio systems, paging systems, background music systems. and sound reinforcement systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 719
Integrated Systems II
This course will cover the basic concepts and theory of transmission and distribution of digital and analog based video signals. This course will cover transmission line theory and signal propagation along with installation, testing and troubleshooting of video communications equipment. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 720
Communication Systems Verification
This course covers the testing, benchmarking and troubleshooting of fiber optic and copper based communications systems. Also covered are the proper use of field test equipment, electrical safety, transmission characteristics, fault location and analysis of field test results. Writing assignments, as appropriate to the discipline, are part of this of course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 721
Fiber Optics
This course covers the basic concepts and theory of digital transmission of communications over fiber optic communications cabling. This course will cover skills in installation, testing and troubleshooting of fiber optic connectors and cabling systems. This course meets the Fiber Optic Association Certification standards for Fiber Optic Association Certification standards for fiber optic installation. Writing assignments, as appropriate to the discipline, are part of this course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 722
Computer Networking
This course provides the student with an overview of the basics of networking from the component hardware to the topology and theoretical foundation of networks. Various types of networks and network topologies will be covered. Writing assignments as appropriate to the discipline, are part of this course.
3 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 723
Industrial Control Systems
Upon completion of this course, the student will be proficient in the field of industrial control and planning. Industrial control training will focus on modern systems incorporating feedback loops, analog and pneumatic signals, and the smart family of transmitters. The dominant process variables -- temperature, pressure, level, and flow -- will be employed in the development of these skills. The planning section of this course will cover electrical layout with an emphasis on initial conduit installation, reading blueprints of various building trades, calculating loads based on the electrical code, designing distribution systems, and sizing and protecting electrical conductors. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 724
Electrical Power Systems
Upon completion of this course, the student will have mastered the theory of distribution and usage of electricity in common industrial settings. Hands-on training is an integral part of the course. The student will learn the basics of power distribution with an emphasis on transformers and the four basic power systems: delta, corner grounded delta, high leg delta, and wye. The student will learn about the largest user of this distributed power: rotating equipment - motors. The motors portion of the course covers single phase and three phase motors. The single phase motors include shaded pole, AC series, permanent split capacitor and motors with starting relays. The three phase motors include wye, delta and wye/delta motors. Finally, the students will learn the newest technique for motor control, variable speed drives. The course will cover the theory of pulse width modulation and the safe operation of frequency drive motors. The student will learn about line lengths, over voltage, overheating, harmonics, and drive components. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 725
Low Voltage Systems
Upon completion of this course, the student will have mastered the basic concepts and theory of the installation and maintenance of low voltage systems currently in use in the electrical construction industry. Installation, testing, troubleshooting and safety techniques through hands-on training and field simulated problems are developed. This course will cover topics in security, life safety, access, environmental controls, communications, data transfer, and data storage. The associated electrical codes are included in daily discussions as they pertain to installation and maintenance of low voltage systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 2.5 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 726
Low Voltage Systems Communications
This course is designed for students who have completed 431IBEW-716 Electronics I. Student will be introduced to the basic concepts and theory of the installation and maintenance of fire alarm systems currently in use in the electrical construction industry. Testing, troubleshooting and safety techniques through hands-on training and field simulated problems are developed. This course will also discuss the various power systems that the fire alarm systems are powered from. The fire alarm and electrical codes are included in daily discussions as they pertain to the installation and maintenance of fire alarm systems. Students will also be introduced to computer componentry, hardware and software. Installation and testing techniques will be introduced. IT troubleshooting will also be emphasized.
Grade of C or better in 432IBEW 716 - Electronics
2.5 Laboratory hours. 3 Lecture hours. 3.5 Credit Hours.
Offered At: DA

IBEW (432IBEW) 727
Photovoltaic Systems
This course is designed to provide students with knowledge of the principles, design and installations of Photovoltaic Systems. Coverage includes renewable energy sources and systems, parallel/series circuits and DC theory, solar site assessment. PV system design, PV module technology, PV system componentry, PV system installation techniques and utility interconnection will be focused on. This course is comprised of lectures, discussion, problem solving, and hands-on activities to demonstrate the safe and productive use of Solar Electricity. Students will be required to write reflections as well as provide written assessments on the principles and techniques of Photovoltaic Systems.
2 Laboratory hours. 3.5 Lecture hours. 4.5 Credit Hours.
Offered At: DA

Integrated Communication (INTCOMM)

Integrated Communication (INTCOMM) 100
Integrated Communication St
This course prepares students to successfully complete the General Education communication sequence of English 101 and English 102 by providing necessary critical reading, writing, and thinking skills. The course will address the writing process, critical reading strategies, rhetorical strategies, metacognition, academic literacy, and conventions of academic discourse, and, as needed, issues of grammar, structure and style. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 98 and READING 99, CCCRTW 2+, or COMPASS e-Write (5-6) and Reading (50 or >), or CCC Writing score of 3+ and Reading (50 or >), or Consent of Dept Chair.
6 Lecture hours. 6 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 4 times

Interdisciplinary Studies (INTDSP)

Interdisciplinary Studies (INTDSP) 101
College Success Seminar
Introduction to academic skills that foster success in college and after college, critical thinking, reading, and writing as well as study skills, time management and stress management, use of technology for communication and research. These skills will be learned through the topic of the course which will be based in the idea of "Self and Community," but will vary depending on the instructor and department teaching the course. Topics will be approached from a variety of perspectives that represent interdisciplinary academic inquiry, and students will consider how to take personal responsibility for academic and career choices through exploration of relationship between self and community. Writing assignments, as appropriate to the discipline, are part of the course.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Interdisciplinary Studies (INTDSP) 102
Career Development and Decision Making
This course helps students develop additional skills to aid in the transition from being a college student to being an employee. Learners will identify personal challenges that might affect their success and develop specific plans to address them. Overall, students will use critical thinking and self-reflection to develop soft skills that enhance employment preparedness. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 096 or Consent of Department Chairperson.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, KK, OH, WR

Interdisciplinary Studies (INTDSP) 103
News Literacy and Civic Engagement
Fundamental critical evaluation of diverse news formats through the application of information literacy and media literacy. Topics explored in relation to the culture of civic engagement. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 096
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, WR

Interdisciplinary Studies (INTDSP) 104
College Success: Special Topics
This course introduces students to the expectations of the college community and helps them develop skills that promote success during and after their college career. Topics will include note-taking methods, study and test-taking strategies, problem solving and critical thinking, oral communication, use of technology and library resources, campus support services, time and stress management strategies, and career exploration. Students will also learn the importance of taking personal responsibility for their academic and career choices. Topics may be approached from a variety of interdisciplinary perspectives that focus on connecting individuals to their local and global communities. Through assignments that integrate community engagement, service learning, and/or on-campus service projects, students will make connections between their coursework and their lives. ARC: 3 times.
1 Lecture hours. 1 Credit Hours.
Offered At: HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Interdisciplinary Studies (INTDSP) 105
Prior Learning Portfolio Development
This course introduces students to Prior Learning Assessment (PLA) and guides them through the process of developing a Prior Learning Portfolio (PLP). Students will examine their experiential learning and relate it to college-level learning. Through the portfolio process and the demonstration of learning equivalent to college-level learning, students will be able to petition for course credits. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
1 Lecture hours. 1 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Interdisciplinary Studies (INTDSP) 299
Interdisciplinary Studies and Service
Students will engage in independent study to augment their educational plan. The course will engage students in service related projects and support activities such as professional networking, scholarly research, and attendance at seminars. Students will work outside the classroom setting and learn to become a practitioner in their field. Writing assignments, as appropriate to the discipline, are part of the course. This course is an allowed repeatable course, and may be repeated up to three times, and count for a maximum of 9 credit hours.
Eligibility for English 101 and Consent of Department Chairperson.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Italian (ITALIAN)

Italian (ITALIAN) 101
First Course Italian
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW
HD Course

Italian (ITALIAN) 102
Second Course Italian
Continuation of Italian 101. Writing assignments, as appropriate to the discipline, are part of the course.
ACTFL Writing Proficiency Test (Score 2.00), or Placement test, or ITALIAN 101, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW
HD Course

Italian (ITALIAN) 103
Third Course Italian
Review and development of basic language skills, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or ITALIAN 102, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW
HD Course

Italian (ITALIAN) 104
Fourth Course Italian
Review of language structure and interpretation of readings, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or ITALIAN 103, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW
IAI: H1 900 GE: Humanities HD Course

Japanese (JAPANES)

Japanese (JAPANES) 101
First Course Japanese
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: HW
HD Course

Japanese (JAPANES) 102
Second Course Japanese
Continuation of Japanese 101. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or JAPANES 101, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW
HD Course

Japanese (JAPANES) 103
Third Course Japanese
Review and development of basic language skills, conducted in Japanese. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or JAPANES 102, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW
HD Course

Japanese (JAPANES) 104
Fourth Course Japanese
Review of language structure and interpretation of readings, conducted in Japanese. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or JAPANES 103, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW
IAI: H1 900 GE: Humanities HD Course

Latin Courses (LATIN)

Latin Courses (LATIN) 101
First Course Latin
This course is the study of the Latin language that includes mastery of vocabulary and grammar, accidence, syntax, and etymology. The courses focuses on developing skills and strategies for acquiring new vocabulary and the understanding of sentences structure that increases the student's readiness to acquire other languages, related and non-related, and provides techniques that students can apply in many other fields. Students will analyze Latin roots of English words, parse and translate passages from Latin literature, recognize derivatives found in the Romance languages, and discuss the cultural content. (This course transfers to a the four-year state universities as electrie credit.) Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
4 Lecture hours. 4 Credit Hours.
Offered At: KK, WR

Latin Courses (LATIN) 102
Second Course Latin
This course is the study of more complex grammatical and syntactical constructions. The course will increase the student's Latin vocabulary and understanding of etymology. Students will analyze Latin roots and English words, parse and translate more difficult passages from actual works of Latin literature, and continue to recognize derivatives found in the Romance Languages. Writing assignments, as appropriate to the discipline, are part of the course.
LATIN 101 with a C grade or better or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: KK

Library & Information Science (LIS)

Library Information Science (LIS) 101
Information Literacy
This course is to help students gain the information literacy skills that enable them to find, retrieve, gather, analyze, and use information so they can prosper as a student, citizen and life-long learner. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, WR

Library Information Science (LIS) 105
Information Literacy Basics
Information is all around us, but sometimes that information is misleading, incomplete, or entirely fabricated. This course is designed to empower students to retrieve and evaluate information in order to accurately distinguish truth from fiction, falsehoods and propaganda. Along the way, we will develop strategies to evaluate sources, recognize bias, and give students the tools they need to prosper as lifelong learners. Writing assignments, as appropriate to the discipline, are part of the course.
Placement into ARC as determined by the CCC Placement Test, the RTW (Read to Write), successful completion of the course immediately preceding ARC in the course sequence based on departmental, faculty-approved assessment, or Consent of Department.
1 Lecture hours. 1 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Library Technology (LIB TEC)

Library Technology (LIB TEC) 101
Intro To Library Procedures
Vocabulary, tools, systems, organization and equipment of modern libraries. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Library Technology (LIB TEC) 102
Multi-Media Technologies
Clerical and supervisory duties in scheduling, circulation, maintaining, and operation of audio-visual and reproducing equipment. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Library Technology (LIB TEC) 125
Learning Resource/Library Practicum
Practice course in which students are placed in learning resource center/ library situations. 20 hours per week plus two hour seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in LIB TEC 101.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: WR

Library Technology (LIB TEC) 201
Library Public Service
Clerical and supervisory duties required in reference and circulation areas. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Library Technology (LIB TEC) 203
Materials Preparation Procedures
Clerical and supervisory duties required in catalog departments; familiarization with commercially produced card catalog sets, classification tables and indices, subject headings, filing, cross referencing, typing forms and records. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in LIB TEC 101.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Library Technology (LIB TEC) 250
Systms & Computr Technology of Libraries
Clerical informational and supervisory duties required in reference, circulation, ordering, receiving and verifying library materials. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Linguistics (LING)

Linguistics (LING) 101
Language And Culture
Examines the relationship between language and culture. Includes the language socialization of children, gender differences in language, standard varieties and dialects of language, the effects of language on thought, and the nature of language in personal relationships. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, TR

Linguistics (LING) 102
Introduction To Linguistics
A general introduction to the theory of language, this course will focus on language systems, with particular attention to phonology, morphology, syntax, semantics, and regional and social varieties of English. Examples of general linguistic principles will be drawn from English as well as other languages known to those who teach the course. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, TR

Linguistics (LING) 103
Instructional Media Second Language Teachers
Introduction to a variety of instructional media used in classrooms and learning centers. Includes creative and effective use, adaptive application of materials, selection and evaluation, use and maintenance, and special techniques and devices for class instruction. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (CIS 101 or CIS 120), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: TR

Literature (LIT)

Literature (LIT) 110
Introduction To Literature
Introduction to Literature Representative poetry and prose. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 900 GE: Humanities

Literature (LIT) 111
Poetry
Reading of representative poems from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 903 GE: Humanities

Literature (LIT) 112
Drama
Reading of representative plays from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 902 GE: Humanities

Literature (LIT) 113
Fiction
Reading of representative novels and short stories from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 901 GE: Humanities

Literature (LIT) 114
Ideas In Prose
Introduction to significant prose writing in major areas of thought. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX
IAI: H3 904 GE: Humanities

Literature (LIT) 115
Great Books Seminar/Topics Literature
This course focuses on the Great Books Foundations and Great Books texts and examines in-depth the global themes in the literature for enrichment, stimulation, pleasure and greater self-knowledge. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Course may be repeated up to three times and may count for a maximum of 12 credit hours. Consent of Department Chairperson required for repeatability.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: H3 907 GE: Humanities
Repeatable: Yes, up to 4 times

Literature (LIT) 116
American Literature from Colonial Days to Civil War
Early American social and political documents, novels, short stories and poems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR
IAI: H3 914 GE: Humanities

Literature (LIT) 117
American Literature from the Civil War to the 20th Century
American prose and poetry from 1865 to 1914. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: H3 915 GE: Humanities

Literature (LIT) 118
English Literature from its Beginnings to the Age of Johnson
Important writers and representative literary forms. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: H3 912 GE: Humanities

Literature (LIT) 119
English Literature from the Romantic Revival to the 20th Century
Important writers and representative literary forms. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR
IAI: H3 913 GE: Humanities

Literature (LIT) 120
Contemporary British & American Literature
Major British and American writers of fiction, poetry and drama of the 20th century. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Humanities

Literature (LIT) 121
Contemporary African American Literature
Survey of major African-American writers from the period of Harlem Renaissance to present day. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 910D GE: Humanities HD Course

Literature (LIT) 122
Perspectives in Black Literature
Sequence and scope of writing development by blacks in America; analysis and interpreting of major works of prose, poetry and drama. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, MX
IAI: H3 910D GE: Humanities HD Course

Literature (LIT) 123
Literature of the U.S. from the Civil War to the Present
Development of the literature of the United States from the Civil War to the present through the analysis of representative texts.
3 Lecture hours. 3 Credit Hours.
Offered At: OH
IAI: H3 915 GE: Humanities

Literature (LIT) 124
Experimental Literature
New directions in writing; experiments in poetry, prose, drama and exploratory writing. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Humanities

Literature (LIT) 125
Psychology in Black Literature
Analysis of books by African-American writers from a psychological point of view; begins with autobiography of Frederick Douglass, concludes with black experiences by contemporary writers Cleaver and Jones. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Humanities HD Course

Literature (LIT) 126
Contemporary American Literature
Major American writers of fiction, poetry, drama, and essays of the 20th Century. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR
IAI: H3 914,H3 915 GE: Humanities

Literature (LIT) 127
Contemporary British Literature
Major British, Irish and Scottish writers of fiction, poetry, drama and essays of the 20th century. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: WR
IAI: H3 913 GE: Humanities

Literature (LIT) 128
Latin American Literature
This course spans the centuries and the Western Hemisphere. It includes the pre-Columbian Mayan Indian authors of Popol Vuh and the world-renowned contemporary practitioners of magic realism. The course includes authors from Mexico, the Caribbean, Central America, and South America. Close attention will be paid to the historical and cultural context of the works. Readings, lectures, and course work will be in English. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, MX, TR, WR
IAI: H3 908N GE: Humanities HD Course

Literature (LIT) 129
U.S. Latino (a) Literature
This course explores the trends and movements of various periods of U.S. Latino(a) literature in relation to U.S. Latino(a) social and cultural history. As part of the literature of the United States, these works are distinct from, although sometimes influenced by, Latin American literature, which is written in Spanish or Portuguese by authors native to Latin American and Caribbean countries. The U.S. Latino(a) texts in this course -- poetry, fiction, drama, memoir, and chronicle -- depict various issues and themes pertinent to this ethnic segment of the United States, including Latino(a) writers' stylistic and thematic contributions to American mainstream literature. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, WR
IAI: H3 910D GE: Humanities HD Course

Literature (LIT) 130
Children's Literature
Survey of children's books, stories, magazines and related audio-visual material; criteria evaluated for building literature program within the classroom. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, TR
IAI: H3 918 GE: Humanities

Literature (LIT) 131
Survey Of Afro-American Poetry
Historical and critical survey of African-American poetry; minor emphasis on Harlem Renaissance and major emphasis on contemporary African-American arts movements. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Humanities HD Course

Literature (LIT) 132
Native American Literature
Emphasizing perceptions and perspectives, this introductory course will examine the construction of Native American identity by exploring the works of different Native American writers and filmmakers. It will carry out its pursuit by engaging with and interrogating the Eurocentric view of the Native Americans and the Native Americans' view of themselves. The course will emphasize the history, style, and content of the literature, situating it in a political, social, and cultural context. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
IAI: H3 910D GE: Humanities HD Course

Literature (LIT) 133
African American Fiction
Aesthetic values that determine quality of fiction written by African-Americans who profess a national consciousness; short fiction from anthologies, environment, style and social implications emphasized; critical and creative writings required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Humanities HD Course

Literature (LIT) 137
The Black Woman In Black Fiction
Exploration of images of the African-American woman in novels and short stories through lectures, discussion, and optional out-of-class group sessions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK
IAI: H3 911D GE: Humanities HD Course

Literature (LIT) 150
Women's Literature
Ideas and philosophy of women writers as represented in their works; problems of women and works portraying women characters in modern British and American works. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H3 911D GE: Humanities HD Course

Literature (LIT) 153
Gay and Lesbian Literature
Guided each year by a central sub-theme of the larger Queer culture, this course focuses on literary words by gay, lesbian, bisexual and transgendered individuals. Students will learn and combine principles of argumentation, making clear distinctions between emotion and rationality, in their responses (in both oral and written form) to course content. As historical and cultural content for those readings are provided, the course will examine the authors' theories (for instance, on topics related to class, race and gender) and the extent of their relevance in contemporary Queer Culture. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: H3 911D GE: Humanities HD Course

Literature (LIT) 155
Literature and Film
Analysis of literature in film; comparison of literary and film techniques, verbal and visual language, and film and modern literature. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: F2 905,F2 908,HF 908 GE: Fine Arts, Humanities

Literature (LIT) 156
Creative Non-fiction
A survey course of creative nonfiction in a variety of forms; personal narrative essays, true crime nonfiction novels, and first person cultural criticism. This course introduces students to a genre of literature, to practical approaches to the determination of literary meaning, and to the concerns of literature in general. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: WR
IAI: H3 904 GE: Humanities

Literature (LIT) 157
Graphic Novels
The world of graphic novels is a vast universe of stories ranging from the realistic and contemporary to the supernatural and historical. Students will read and discuss representative works with some attention to critical work and increase their enjoyment and appreciation of a variety of graphic novels, genres and creators while determining literary meaning, form, and value. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Literature (LIT) 211
Shakespeare
Critical reading and discussion of representative Shakespearean histories, tragedies, comedies and sonnets. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: H3 905 GE: Humanities

Literature (LIT) 220
World Literature
Survey of masterpieces in world literature: principal works and writers, literary periods, and traditions with selections from ancient times through present day. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
IAI: H3 906 GE: Humanities

Literature (LIT) 223
Intro To Literary Genres
Introduction to basic literary genres and their characteristics. Includes development of critical judgment and skill in analysis of literary works. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Humanities

Literature (LIT) 299
Science Fiction: Psychology & Prophecy
A survey of major writers of science fiction. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Humanities

Logistics/Transportation/Distr (330TRNS)

Logistics/Transportation/Distr (330TRNS) 111
Introduction to Diesel Technology
This course introduces the student to the fundamentals of basic, personal and shop safety industry requirements for Diesel Technology. In this course the student will learn to identify, use and care for hand and power tools commonly found in the diesel repair industry. Students will gain an understanding of the basic movement and parking procedures of vehicles and equipment. They will also learn about the history of the industry and explore career and employment opportunities in dealerships and independent shops, from maintenance to major overhaul. Additional topics of discussion include hazardous material handling and storage. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 112
Diesel Electrical Systems I
This course will include electrical safety practices; tool use; connecting and disconnecting techniques; direct current symbols, components, and schematics; principles of DC voltage and current; Ohm's Law; and troubleshooting, repairing and calibration of electrical/electronic systems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107. Grade of C or better in 330TRNS 111 and 330TRNS 113.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 113
Introduction to Diesel Engine Construction
In this course students will learn the fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, disassembly, repair and reassembly of the engine. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 114
Diesel Engine Construction I
This course will provide students with concepts and skills required for engine construction, tune-up and troubleshooting procedures of diesel engines. Students will gain an understanding of alphanumeric coding and the integration of additional foundational skills required to identify and repair diesel engines. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107. Grade of C or better in 330TRNS 111 and 330TRNS 113.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 115
Suspension and Steering
This course will introduce students to the basic fundamental skills, technology, and service of automotive suspension and steering systems. Areas of studies include; diagnosis and repair of steering systems, diagnosis and repair of front suspension systems, diagnosis and repair of rear suspension systems, miscellaneous suspension and steering systems, and diagnosis and adjustment of wheel alignment. Group and individual activities engage students in problem-solving techniques and manipulative skills while completing industry related activities. Safety instruction is integrated into all activities. Students will also learn to identify and describe various steering systems used on diesel- powered vehicles and have an opportunity to inspect, diagnose, and repair steering problems. They will make needed repairs on the suspension system and perform wheel alignments. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107. Grade of C or better in 330TRNS 111 and 330TRNS 113.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 116
Diesel Brakes
This course is designed to provide the student with an introduction to the basic principles of brake systems of diesel powered equipment. Emphasis is on maintenance, repairs and troubleshooting. The student will apply knowledge and understanding of the basic theory and operation of the brake systems, diagnose brake components for wear and usability, repair brake components by rebuilding or replacing parts, and adjust brake components. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 107. Grade of C or better in 330TRNS 111,112,113,114,115, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 209
Diesel Electrical Systems II
This course will include the study of DC resistance and conductors, principles of DC circuits, fundamentals of alternating current and semiconductors, basic electronic circuits, and digital electronics. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 211
Diesel Preventive Maintenance
This course introduces the student to the knowledge base and technical skills for all courses in the diesel preventative maintenance and inspection concentration. Areas of study include engine system maintenance, under hood and cab maintenance, electrical/electronic systems, frame and chassis maintenance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 213
Diesel Engine Construction II
This course will provide students with concepts and skills required for engine construction, advanced diagnostics of diesel engines, rebuilding and testing, repair of injection pumps and governors; troubleshooting engines and fuel system failures as well as the operation and adjustment of Cummins Pressure-Time System. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 214
Emission Controls
This course will provide students with in-depth study of how technology is used in the trucking industry. Current emissions control systems operations, troubleshooting and repair will be thoroughly addressed. Regulatory compliance, electronic vehicle management systems diagnostics, testing and adjustments will be discussed, along with hands on electronic diagnostic systems testing. Various OEM electronic fuel systems and diagnostic software will also be discussed and used. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 215
Diesel Engine Performance
This course will provide students with theoretical and practical applications needed for the operation, servicing, and troubleshooting of various types of diesel engines. It will include the study of diesel fuels, diesel fuel supply systems, mechanical and electronic injection systems, computerized engine controls, as well as soot particle reductions. Diagnostic tools usage and problem solving to enhance engine performance are also incorporated in to the class. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 216
Heavy Duty Drives I (Manual)
This course introduces students to power train systems used on medium/ heavy duty trucks. Topics include: introduction to power trains, clutches and flywheels, powertrain electronic systems, auto-shift mechanical transmissions, power take-offs, trucks drive lines, differentials and final drives, torque converters, and automatic transmissions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 217
Heavy Duty Drives II (Automatic)
This course will provide students with theoretical and practical applications of power train systems used on medium and heavy duty trucks. Areas of focus will include power take-offs, truck drive lines, introduction to power trains, clutches and flywheels, powertrain electronic systems, differentials and final drives, torque converters and automatic transmissions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 218
Heating and Air Conditioning
This course introduces systems used in medium/heavy duty trucks and heavy equipment. Classroom instruction on HVAC theory and operation along with local, state, and federal regulations are strongly emphasized. Topics include: HVAC safety, HVAC system theory and operation, A/C system component diagnosis and repair, HVAC system diagnosis and repair, HVAC operating systems and related controls, and refrigeration recovery, recycling, and handling procedures. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213, and PHY SCI 112.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 219
Hydraulic Systems
This course will provide students with theoretical and practical applications of hydraulic principles into mobile hydraulic circuits. Students will gain an enhanced learning of basic hydraulic components including assembly and disassembly of valves, pumps and cylinders; servicing, diagnosing, and preventive maintenance procedures will be performed on trucks and heavy equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213,214.215,216,218, and PHY SCI 112.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: OH

Logistics/Transportation/Distr (330TRNS) 220
Advanced Diagnostics
This course will challenge students and expand upon skills and knowledge learned in previous Diesel Technology-related courses. Students will perform diagnostic testing, and engage in problem-solving techniques and replicate real-world diesel maintenance and repair conditions. Topics include diagnosis and repair of emission systems, computerized engine performance systems, and advanced low and high-pressure fuel systems; proper use of advanced engine performance diagnostic equipment will be addressed. Prepares students for ASE A9 certification test. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 101 and Math 107. Grade of C or better in 330TRNS 111,112,113,114,115, 116,209,211,213,214,215,216,218 and PHY SCI 112.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: OH

Manufacturing Tech TC1 (340MFGT)

Manufacturing Tech TC1 (340MFGT) 104
Statistical Process Control
This course introduces the use of statistical process control (SPC) which ensures that production systems maintain quality through predictive control of variations. Various distribution curves and statistical control charts are introduced through specific production problems. The interpretation and use of process and product control data is presented through simulations of real scenarios. The course will also prepare students for the Manufacturing Skill Standards Council's Quality Practices and Measurement exam. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 139, and Grade of C or better or concurrent enrollment in MATH 125; or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 105
Introduction to Advanced Manufacturing I
This course presents the fundamentals of print reading, measuring skills needed to verify if produced parts meet print requirements and provide a general understanding of the materials and processes used in manufacturing. Visualization of 3D objects from orthographic views. The use of micrometers and dial calipers are stressed. The concepts of (GD&T) Geometric Dimensioning and Tolerancing, and quality tools are introduced. Computer-aided Design (CAD) will be introduced. The course also provides a general understanding of the behavior of the materials commonly used in manufacturing, the basic techniques used in processing them into useful products, the scientific theory underlying those processes, and the criteria for selecting particular tools, machines, and processes. Shop safety is discussed in detail. The course can lead to industry recognized certifications such as, Starrett PMI metrology, Lincoln Electric print reading, 3MSafety certificates, all NC3. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 106
Introduction to Advanced Manufacturing II
This course is an introduction to the fields of Advanced Manufacturing. Topics covered are the use of Computer Numerical Control in 3D printing, machining and robotics. Introductions to virtual welding and electricity will be covered. In the fluid power sections of the course topics included will be fluid power schematics, compressors, pumps, valves, and actuators. Students will design and build fluid power circuits using fluid power sources, valves, and actuators. In the industrial mechanisms section of the course, principals covered are drive trains, including gear, belt and chain drives, fastening devices. Torque and shaft speed measurements are covered. Students will also learn how to select the proper hand and power tools, including torque measuring tools. These studies can lead to industry-recognized certificates such as, Festo Industry 4.0 Fundamentals, Intro to Mechatronics , Snap-On meters, all NC3. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 107
Introduction to Advanced Manufacturing III
This class utilizes Computer Aided Drafting software such as AutoCAD, prototyping equipment, and small machines such as those found in a maker space to develop product design and prototyping skills. CAD software is taught to enable students to design a product with group input, and a class project will involve creating products with each of the available prototyping technologies. The class will conclude with a written and oral presentation of the products designed and issues taken into consideration while creating the designs, and discussing the next steps in the product design process. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 108
Robotics I
This course provides students with the basic operations of industrial robots, using the teach pendant. The course covers the tasks that the student needs to setup, record and/or troubleshoot programs. Students will be prepared to earn robotic operator certificates, such as Festo Robotics 1 NC3, Fanuc. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 109
Introduction to Manual Machining
This course is an introduction to machine tools and metal-cutting processes used in manufacturing. Students complete projects that require precision layout, set-up, machining, and inspection. These projects require students to perform various operations using horizontal and vertical band saws, drill presses, mills, and lathes. Students are also prepared to take industry recognized certification tests, such as NIMS Level 1 Measurement, Materials and Safety, Starrett metrology, 3M Safety NC3. Writing and math assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 110
CNC I Operations
The course introduces students to the CNC process, the operation of the CNC lathe and mill, and to their basic set-up, tooling, operation, and trouble-shooting of CNC machines. Topics include math for CNC, control functions, and the identification and use of various cutting tools. Students have the opportunity to obtain nationally recognized certifications, such as Hass, NIMS, Starrett metrology NC3. Writing and math assignments, as appropriate, are a part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 111
Machining Processes I
This course is an introduction to machine tools and metal-cutting processes used in manufacturing. Students complete projects that require precision layout, set-up, machining, and inspection. These projects require students to perform various operations on engine lathes, drill presses and power saws. Students are also prepared to take the NIMS Level 1 Measurement, Materials and Safety test, and the MSSC Safety test. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for READING 99 by COMPASS Reading (50-64), or Consent of Department Chairperson.
1 Lecture Hours. 4 Laboratory Hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 112
Machining Processes II
This course is an introduction to machine tools and metal-cutting processes used in manufacturing. Students complete projects that require precision layout, set up, machining, and inspection. These projects require students to perform various operations on vertical milling machines, power saws and surface grinders. Students also have the opportunity to earn one or more NIMS Level 1 machining credentials including "Measurement, Materials and Safety," or "Job Planning, Benchwork, and Layout." Students with machine shop experience may attempt to earn NIMS Machining Level 1 in "Milling," or "Drill Press," or "Surface Grinding." Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for READING 99 by COMPASS Reading (50-64), or Consent of Department Chairperson.
1 Lecture Hours. 4 Laboratory Hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 113
Multiple Spindle III
A study of theories and principles of multiple spindle practitioners utilizing practical lab applications. Study will include equipment operations such as tool grinding, electrical operations, tooling, and various service setting techniques. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 4 Lecture hours. 6 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 123
CNC Milling Operations & Programming
This course introduces the programming setup and operation of CNC machining center. Topics include programming formats, control functions, program editing, part production, and inspection. Various projects will strengthen the students' skills in the proper use, programming, troubleshooting of this equipment. Students will also earn the NIMS level 1 CNC Milling Program, Setup, and Operate credentials. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 140 and 340MFGT 112-1 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 137
CNC Turning Operations & Programming
This course introduces the programming, setup, and operation of Computer Numerical Control (CNC) turning centers. Topics include: programming formats, control functions, program editing, part production and inspection. Various projects will strengthen the students' skills in the proper use, programming and troubleshooting of this equipment. Students will also have the chance to earn the NIMS Level 1 CNC Turning Program, Setup, and Operate Credential. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 140 and 340MFGT 111-1 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 138
Intro to Solidworks
This course covers part modeling, detailing and assembly design using SolidWorks software. SolidWorks is a feature-based parametric solid modeler used for mechanical design and manufacturing. The topics include the basic functions needed to use SolidWorks to create parts, assemblies and production drawings. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 99 and Grade of C or better in 340MFGT 139 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 139
Print Requirements-Quality Assurance
This course focuses on the fundamentals of print reading and the measuring skills needed to verify print requirements. VisualIzation of 3D objects from orthographic views and the use of micrometers and dial calipers are stressed. The concepts of Geometric Dimensioning and Tolerancing, and quality tools (such as Pareto diagrams and fishbone charts) are introduced. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 140
CNC Fundamentals
This course introduces students to the CNC process, the operation of the CNC lathe and mill, and to the basic set up, tooling, operation, and trouble shooting of CNC Machining. Students will earn at least one NIMS Level 1 CNC Operator credential. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 99 and Grade of C or better in 340MFGT 111-1 or 340MFGT 112-1 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 141
Manufacturing Materials & Processes
The course will provides a general understanding of the behavior of the materials commonly used in manufacturing; the basic techniques used in processing them into useful products, the scientific theory underlying those processes, and the criteria for selecting particular tools, machines, and processes. Students will have the opportunity to earn the MSSC Manufacturing Processes and Production credential. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 142
Geometric Dimensioning and Tolerancing
This course expands upon the student's basic knowledge of mechanical drawings by adding form and feature controls in order to meet assembly requirements at the lowest cost. The differences between traditional dimensioning and geometric dimensioning will be stressed. This course prepares students for an ASME certification in GDT. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 139 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 143
Advanced Metrology
The course focuses on the use of the Coordinate Measuring Machine (CMM) and the optical comparator to inspect machine parts to the current ASME Y 14.5 Geometric Dimensioning and Tolerancing (GD&T) standards. Lab exercises will focus on the set up and operation of precision measuring tools, including the CMM and the optical comparator, to inspect complex parts. Bore gages, attribute gages, gage blocks and pins and their use in calibration will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better or Concurrent enrollment in 340MFGT 142 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 144
Wire Electrical Discharge Machining
The course covers operations and procedures for Wire Electrical Discharge Machining systems (Wire EDM). The course content includes an overview of the Wire EDM, EDM operating processes, EDM machine functions, EDM manual part programming, and EDM application in tool rooms and production. Students may also earn the NIMS Wire EDM credential. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 140 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 145
Computer Integrated Manufacturing (CIM)
Students will study aspects of automated assembly and process control, including programmable controllers, computer assisted part programming, CAD/CAM systems computerized instrumentation and robotics. This course stresses a systems approach and how hydraulic, pneumatic and electromechanical components function together as a system. Troubleshooting automation is a major activity of this course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 291 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 146
Team Dynamics in Manufacturing
This course provides an exploration into how employees work in groups for the completion of organizational objectives. Emphasis is placed on the growing dependency on self-directed work teams in a manufacturing environment. This course equips students with the ability to manage work teams, work in teams successfully, and to obtain the results via team dynamics. In addition, impacts upon customer satisfaction are explored. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 96 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 151
Introduction to Welding
This is a beginning welding course that teaches basic welding skills that lead to an American Welding Society qualification Gas Metal Arc Welding (GNAW or MIG). Topics include metallurgy, welding processes, welding safety, and steel designations. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 096 or Consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 152
Intermediate Welding
This is a second welding course that teaches basic welding skills that lead to an American Welding Society (AWS) qualification in Gas Tungsten Arc Welding (BTAW or TIG) and/or Shielded Metal Arc Welding (SMAW or Stick). In addition to teaching the theory and practice of GTAW and SMAW welding processes, the course including training in welding with a FANUC robot, resistance welding and torch work. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 151, or consent of Department Chairperson.
6 Laboratory hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 153
Welding I GMAW
This is a beginning welding course that teaches basic welding skills in Gas Metal Arc Welding (GMAW or MIG). Topics include metallurgy, welding processes, welding safety, and steel designations. Also discussed will be plasma cutting. Students will have the opportunity to train for and take nationally recognized certifications, such as Lincoln Electric NC3. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 154
Welding II GTAW
This is a second welding course that teaches basic welding skills that can lead to an industry certification, such as Lincoln Electric, Intro to GTAW, SMAW, and FCAW NC3 in Gas Tungsten Arc Welding (GTAW or TIG). In addition to teaching the theory and practice of GTAW, other processes will be discussed, i.e., Shielded Metal Arc Welding (SMAW), oxy-fuel, and plasma cutting. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 160
CNC II Operations and Programming
This course introduces programming, setup and 'hands-on' operations of Computer Numerical Control (CNC) machinery. Topics include programming formats, control functions, program editing, part production, inspection, and an intro to other CNC controlled machine tools. Various projects will strengthen the students' skills in the proper use, programming, and troubleshooting of CNC machinery. Students will have the opportunity to earn nationally recognized certifications, such as Starrett Metrology NC3, Hass, and NIMS. Writing and math assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 110 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 162
Industrial 2D/3D CAD
This course is designed for students who wish to be involved in the engineering design fields and for those interested in computer aided design. Students will be introduced to both traditional and computer aided drafting skills. The aim of CAD is to introduce students to basic information, skills, and concepts related to drafting and design. Special attention is given to: sketching, measurement, room planning, multi-view drawing, auxiliary views, working drawings, sectional views, orthographic drawings along with AutoCAD tools and commands. Current and future trends in the architectural and engineering fields will be examined. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 163
Programmable Logic Controls for Robotics
This course is designed for students who wish to be involved with the architectural and engineering design fields and for those interested in machine control programming. Students will be introduced to the Programmable Logic Controller (PLC) which is a device that is capable of being programmed to perform control functions. The first PLC was introduced in the late 1960s to replace relay logic controls in the automotive industry. Compared to relay logic controls, the PLC's advantages include easy programming and installation, high control speed, hardware and software security, network compatibility, troubleshooting and testing convenience, and high reliability. PLCs are currently used widely in industrial and commercial environments. They can be found in almost any manufacturing facility. There are several manufacturers of PLCs. While the instruction formats may not be the same for different brands, the hardware structures and programming concepts are very similar. This course covers PLC hardware structure, input/output modules, software, and programming. PLC operation and ladder logic programs are discussed.
Grade of C or better in 340MFGT 164
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 164
Industrial Control Systems
Students will be taught Control Systems Schemes that are used to maneuver industrial equipment. The students will utilize the CAD (learned in previous course) to create electrical, pneumatic and hydraulic control schematics. CAD lessons will also be extended by the use of Blocks and Templates to enhance drafting skill sets. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 162
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 165
Robotics Programming
This course is designed for students who intend to operate or maintain an R30iA or newer FANUC Robot and application technicians (or engineers) who need to design robotic work cells, perform cycle time, reach ability studies, or generate robot path.
Grade of C or better in 340MFGT 164
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 170
CAD I
This course covers part modeling, detailing and assembly design using software such as AutoCAD. The topics include the basic functions needed to use a CAD program to create parts, assemblies and production drawings. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 171
Automated Metrology-Quality Assurance
This course advances the knowledge and skills of metrology. The use of height gages, Optical Comparators, CMMs, and other tools used to inspect and measure manufactured parts will be taught. GD & T and SPC will be introduced. Hardness testing is covered. Provide preparation for nationally recognized certificate tests, such as Starrett Advanced Measurement Instruments (AMI), Zeiss certification prep. Writing assignments, as appropriate to the discipline, are part of this course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 172
Quality Systems I
This is a first course in quality systems and provides training in the use of quality systems and approaches to quality found in manufacturing. The course focuses on the planned and systematic activities implemented in a quality system so that quality requirements for a product or service fulfill the goals of the manufacturer and the customer. Students will learn the systematic measurement, comparison with a standard, monitoring of processes and an associated feedback loop that confers error prevention. Auditing, standard procedures, SPC, GD & T, ISO 9000 and quality improvement processes such as 6-Sigma will be introduced. Lean tools and problem resolution such as root cause analysis will also be introduced. Certification preparation for ASQ will be discussed. Writing and math assignments, as appropriate to the discipline, are part of this course.
Grade of C or better in of 340MFGT 171 Metrology 2 Beginning Quality Assurance, or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 188
Industrial Electricity I
This is the first course in DC and AC electricity as applied to industrial circuits. The topics include: electrical safety, fundamentals of electrical circuits including Ohms Law, current, voltage, resistance, and power, single and 3-phase power, troubleshooting electrical circuits, and the basics of programmable logic controllers (PLCs). Writing assignments, as appropriate to the discipline, are a part of the course. Prepare students for industry recognized certification tests, such as Festo Electricity 1, Snap-On meters, Greenlee certs NC3.
Eligibility for MATH 99 and ENGLISH 96 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 189
Industrial Electricity II - Motors
This course is a study of different types of electrical motors and controls as they are applied to industrial circuits. Topics include safety issues, instrumentation, and the interpretation of ladder or line diagrams. An overview of the different types of motor controls is also provided. The students will be able to troubleshoot and repair problems associated with different motor control applications of the industry. Programmable logic control (PLC) operations is introduced. Students will be prepared to test for industry-recognized certifications, such as Festo Electricity 2, Greenlee NC3. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 188 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 191
Industrial Electricity
A study of DC and AC electricity as applied to industrial circuits. The topics include: fundamentals of circuit analysis, single and three phase circuits; and parameters, safety issues in industrial electricity, such as current, voltage and power and troubleshooting methods using test equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 99 and ENGLISH 96 or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 195
Manual Machining II
This course is a continuation of the first course in manual machining, 'Intro to Manual Machining'. In this course, students will be taught more advanced skills in using standard manual machines, such as, lathes, mills, drill presses. Fixture design and fabrication techniques will be introduced. Students will be prepared to take nationally recognized certification tests, such as, Starrett NC3 Precision Measuring Instruments (PMI), Advanced Measuring Instruments (AMI) and NIMS. Written and math assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 109 , or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 207
Introduction to MASTERCAM
This course trains students to use Mastercam software to create programs that will drive computerized machine tools (CNC machines). These "g-code" programs are generated from part geometry created in Mastercam software or in a computer-aided- drawing (CAD) software such as Solidworks. Students will learn to create part geometry, generate toolpaths, assign appropriate tools to the toolpaths, and upload their program to a CNC machine, which will precisely cut the part from metal stock. Student projects will focus on 2-D milling operations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 140 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 208
ROBOTICS II - ROBOTC INTEGRATION
This course provides students the skills needed to program/setup, teach, test, and modify industrial robot programs and vision systems, and integrate with other equipment. Robotic material handling will be introduced. Students will be prepared to earn industry recognized certificates, such as Festo NC3, FANUC, NOCTI. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 108 Robotics 1 and 340MFGT 288 Industrial Electricity 3 Programmable Logic Controls (PLC's)
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 209
Computer Aided Manufacturing (CAM) I
This is the first course in computer-aided manufacturing (CAM). The basics of CAM software are studied in this course. Students will use CAM software to create instruction sets for CNC machines. This course will focus on 2D parts. Students will prepare for industry recognized certifications, such as MasterCam certs. Writing and math assignments, as appropriate to the discipline, are included.
Grade of C or better in 340MFGT 110 or consent of Department Chairperson
3 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 210
Automated Fabrication I
This course covers the basics of using automated fabrication tools such as; welding robots, CNC laser cutters, CNC brake, CNC punch, CNC pipe profiler, and CNC plasma table. Workflows and tool-chains will be discussed and examined. Project planning and part development will be discussed. Also, students will use skills they have learned throughout the program on a project utilizing fabrication equipment as directed by the instructor. Students will prepare for industry recognized certifications, such as Fabricators and Manufacturers Association (FMA) certifications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 108 and 340MFGT 153 or Consent of department chair.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 211
AUTOMATED FABRICATION II
This course focuses on advanced techniques on automated fabrication tools such as welding robots, CNC laser cutters, CNC brake, CNC punch, CNC pipe profiler, and CNC plasma table. Students will use skills learned throughout the program on a project using advanced fabrication techniques as directed by the instructor. Students will prepare for industry recognized certifications, such as Fabricators and Manufacturers Association (FMA) certifications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 210 Automated Fabrication 1.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 251
Welding III-Advanced Welding
This is an advanced course covering welding techniques such as robotic welding, pipe welding and flux core welding in which students will further develop welding skills learned in previous classes. Leads to industry recognized certifications, such as Lincoln Electric NC3. They will also build on their pipe welding skills by welding "out of position." Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 108 and 340MFGT 109 and 340MFGT 154 or Consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 252
Welding IV - Inspection
In this course, students are exposed to inspection principles in welding, including ultrasonic, visual, and destructive methods. Students will learn to design welding fixtures. This course will prepare students for industry recognized certifications, such as an American Welding Society (AWS) Certified Welding Inspector (CWI) certification and Lincoln Electric NC3.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 253
Pneumatics
Study of the basic principles of pneumatics with emphasis on schematics, valves, actuators, compressors, instrumentation, applications, and troubleshooting. Course also includes the use of supplier catalogs and technical manuals. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 255
Industrial Hydraulics
This course is a study of basic principles of hydraulics. The topics in this course include schematic interpretation, valves, actuators, compressors, line sizing, fluid viscosity and reservoir capacity. This course will also includes the use of supplier catalogs and technical manuals. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 260
CNC III - Advanced Operations
This is the 3rd course in CNC. It advances knowledge in CNC machining, such as, the use of "live tooling," linear and circular interpolation, and multi-axis machines. FANUC controls will be studied in this course. Students will use CNC machines to fabricate multiples of the same part to study tool wear and tolerance measurement. Students will prepare for industry recognized certifications, such as Hass, NIMS advanced certifications. Writing and math assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 110 and 340MFGT 160 or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 270
CAD II Detailing
This is the second class in computer aided drafting and develops skills in applying the proper symbols, tolerance communication and design requirements intended to manufacture or produce the design intent of the drawing package. Drawing details related to welding, piping, threads, fasteners and plant layout are described and practiced through projects and presentations. The design review process is described and consideration is given to product or design manufacturability and maintainability. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 170.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 272
QUALITY SYSTEMS II
This is the second class in Quality Systems as related to manufacturing and production utilized by various industries. Students will be introduced to quality standards such as ISO and IATF and approaches to quality and quality improvement such as Six Sigma and Lean Manufacturing. The tools of quality improvement utilized in analyzing and resolving complex manufacturing issues will be practiced including root cause analysis, Pareto charting and process flow charting. Analysis tools such as Gauge Repeatability and Reproducibility (GRR) and Process Capability will be studied. Other quality tools such as Failure Modes and Effect Analysis and Standard Process Documentation will also be part of this course. Students will prepare for industry recognized certifications, such as ASQ quality cert. Students will work on projects to apply the tools. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MFGT340 172 Quality Systems 1
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 274
Materials II - Testing and Analysis
This second course in materials will focus on materials testing and analysis, including methods such as microscopy, ultrasonic, tensile and impact testing in a lab environment. Destructive testing will include methods such as tensile and impact testing. Non-destructive (ND) testing will include methods such as microscopy, scanning electron microscope, ultrasonic testing, dye penetration testing, and hardness testing. Microscopy is a broad subject so much time will be devoted to it. In addition to the various kinds of testing, students will be introduced to failure analysis. Thermal treatment of materials will be discussed. Identification of process gasses using a mass spectrometer will be introduced. Students will prepare for industry recognized certification tests, such as, Starrett Advanced Measurement Instruments (AMI) NC3, American Welding Society (AWS) Non-Destructive (ND) testing. Writing and math assignments as appropriate to the discipline are a part of this course.
Grade of C or better in 340MFGT 105 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, WR

Manufacturing Tech TC1 (340MFGT) 287
Maintenance Technologies I
Maintenance technicians need to be able to determine causes of problems and perform functions that prevent and eliminate machine downtime and interruptions to production. Failure analysis will be covered. In this class students will learn the methods in which maintenance departments track, monitor, and manage how maintenance work is efficiently performed, such as 5S. Maintenance management systems using preventive and predictive technologies will be studied. Vibration analysis, infrared thermography, shaft alignment, pumps, and piping will also be studied. Group activities in troubleshooting and utilization of preventive techniques will require written documentation and hands-on demonstration of correct operation of monitoring equipment as appropriate. This course will prepare students for industry recognized certifications such as Snap-On torque measurement and NIMS. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for MATH 98 and ENGLISH 96, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 288
Industrial Electricity III - PLC's I
This course covers the basic concepts and skills needed to program and use Programmable Logic Controllers (PLCs) in automated systems in industry. The topics include an overview of basic terminology, ladder logic programming, memory structure, and processing. Students will learn to use PLCs to control electro-mechanical devices, pneumatic actuators, and other industrial components, and will be introduced to sensors. Writing assignments, as appropriate to the discipline, are part of the course. Prepares students for nationally recognized certifications, such as Festo PLC's 1 and sensors NC3.
Grade of C or better in 340MFGT 188 and 340MFGT 189 or consent of Department Chairperson
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 289
INDUSTRIAL ELECTRICITY IV - PLC'S II
This is the second class in PLC programming and control systems, and students will build on prior knowledge gained in motors and controls and PLC 1 courses. Building on the previous class, students will gain hands-on knowledge of how to program, modify programs, add to existing programs, and troubleshoot existing PLC control systems. Utilizing PLC systems of increasing complexity, students will learn the components and programming of industrial equipment. Programming touch screen displays, and PLC interface with various types of external equipment such as conveyors, scales, metal detectors and sensors are discussed and demonstrated. Students will modify existing programs in a manufacturing cell or system to correct issues or add functionality. Students will prepare for industry recognized certification tests, such as Festo PLC2, Sensors NC3. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 288 Programmatic Logic Controllers (PLC) or consent of department chair.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 290
Process Technology I
This is an introductory class on process control technology. Students will focus on major parameters used in industry to measure the status of a process--emperature, pressure, level and flow, and Ph analysis. The class defines the parameters and how they are used and controlled, and the system components in those control systems. Students will learn about their application in manufacturing, and the instrumentation used to measure them. Thermocouples, pressure, level, and flow sensors will be introduced and used to measure parameters. proportional/Integral/ Derivative (P. I. D.) computer control is introduced. Physical principles governing the parameters will be introduced, such as the gas laws. Writing and math assignments as appropriate to the discipline are a part of this course. Course can lead to NIMS Certification.
Eligibility for Math 98 Beginning Algebra with Geometry and English 96 Aligned Reading and Composition, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 291
Programmable Logic Controllers
This course covers the basic concepts and skills needed to program and use programmable logic controllers (PLC's) in automated systems in industry. The topics include an overview of basic terminology, ladder logic programming, memory structure, and processing. Students will use PLC's to control electro-mechanical devices, pneumatic actuators, and other industrial components. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 191 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 292
Principles of Mechanisms
This course covers the basic principles of industrial mechanisms. The motion characteristics of drive mechanisms, bearings, lubricants, cams, gears, pulleys are covered in the context of manufacturing processes and factory automation. Troubleshooting and maintenance procedures used in industrial settings are stressed throughout. Students completing the course will be prepared to earn the Manufacturing Skill Standard Council's Maintenance Awareness module of the Certified Production Technician credential. Writing assignments, as appropriate to the discipline are part of the course.
Eligibility for Math 99 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 295
Electrical Motor Controls
A study of different types of electrical motor controls as they are applied to industrial circuits. The topics include safety issues, instrumentation, and the interpretation of line diagrams. An overview of different types of motor controls is also provided. The student will be able to troubleshoot and repair problems associated with different motor control applications of the industry. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 191 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Manufacturing Tech TC1 (340MFGT) 297
Advanced Mechanical Systems
This course builds on the concepts elaborated in 340MFGT 292-Principles of Mechanisms. Topics include: Mechanical Drive Systems, Basic & Key Fasteners, Power Transmission Systems, V-Belt Drives, Chain Drives, Heavy Duty V-Belt Drives, V-Belt Selection and Maintenance, Lubrication Concepts, and Torque and Power Measurement. Students will also learn how to select the proper hand and power tools, ratchets, torque, wrenches, and torque settings for equipment assembly. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340MFGT 292 or Consent of Department Chairperson.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Mathematics (MATH)

Mathematics (MATH) 7
Algebraic Literacy with Geometry Continuation Course
This course is a continuation of Math 97 Algebraic Literacy with Geometry.
Completion of Math 97 with a grade of TMP
1 Lecture hours. 1 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Mathematics (MATH) 18
Co-Curricular for Math 118
This course is designed to supplement General Education Math by providing foundational math skills necessary to be successful in Gen. Ed. Math. Topics may include: operations with algebraic expressions, basic geometry, order of operations involving fractions, two dimensional graphs, plotting points, equations, and using technology to enhance algebraic concepts. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in linked MATH 118, eligibility for MATH 99 or equivalent and eligibility for ENGLISH 96 or equivalent or consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 3 times

Mathematics (MATH) 24
Co-Curricular for Math 124
This course is designed to supplement Critical Mathematics (Math 124) by providing foundational math skills necessary to be successful in the course. Topics may include: equivalent fractions, percentages, ratios, absolute value, order of operations, evaluating algebraic expressions, set theory, basic geometry, linear equations and inequalities, the coordinate plane, slope, variation, graphing linear functions, and using technology to analyze data. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in Math 124, eligibility for Math 99 or equivalent and eligibility for English 96 or equivalent or consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: OH
Repeatable: Yes, up to 3 times

Mathematics (MATH) 25
Co-Curricular for Math 125
This course is designed to supplement Introductory Statistics by providing foundational math skills necessary to be successful in statistics. Topics may include: equivalent fractions, percentages, ratios, absolute value, order of operations, evaluating algebraic expressions, set theory, basic geometry, linear equations and inequalities, the coordinate plane, slope, variation, graphing linear functions, and using technology to analyze data. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in linked MATH 125, eligibility for MATH 99 or equivalent and eligibility for ENGLISH 96 or equivalent or consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 3 times

Mathematics (MATH) 40
Co-Curricular for Math 140 and 143
This course is designed to supplement College Algebra by providing foundational math skills necessary to be successful in college algebra. Topics may include: operations with algebraic expressions, set theory, basic geometry, linear equations and inequalities, absolute value equations, the coordinate plane, slope, variation, graphing linear and quadratic functions, complex numbers, and using technology to enhance algebraic concepts. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in linked Math 140 or Math 143; completion of Math 097 or higher with a C or better; or eligibility for Math 118, 121 and eligibility for ENGLISH 96; or appropriate score on Placement Test; or consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Mathematics (MATH) 90
Mathematical Literacy
Mathematical Literacy is designed to enable students to develop conceptual understanding and problem solving competence as preparation for quantitative and statistical reasoning level math. This course integrates numeracy; proportional, algebraic & statistical reasoning; functions and modeling and focuses on developing mathematical maturity through problem solving, critical thinking, data analysis, and the writing and communications of mathematics. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. Emphasis is placed on modeling and problem solving, with techniques and manipulations covered in context. Throughout the course, Math success content will be integrated with mathematical topics. Credit earned does not count toward any degree, nor does it transfer.
Completion of FS MATH 3001,3002 with a grade of S, or ALEKS math score of 20+, or GED MATH score of 145+, or HiSET MATH score of 8+ and Eligibility for ENGLISH 96, or consent of dept.
6 Lecture hours. 6 Credit Hours.
Offered At: MX, OH, TR, WR

Mathematics (MATH) 97
Algebraic Literacy with Geometry
This course prepares students to make the transition from arithmetical knowledge to algebraic thinking. Topics include but are not limited to: algebraic expressions; linear equations in one and two variables; systems of linear equations in two variables; linear inequalities in one variable; polynomials; factoring; rational and radical expressions; quadratic equations; and introduction to functions. Geometry topics for this course include perimeter, area, and volume. Real-world scenarios and applications of problem-solving skills are emphasized throughout the course. Students must be exposed to graphing technology and/or computer algebra systems. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of FS MATH 3000 with a grade of S, or ALEKS math score of 20+, GED 150, HiSet 10
6 Lecture hours. 6 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Mathematics (MATH) 98
Beginning Algebra with Geometry
Course Description: Algebra of real numbers, integer exponents, polynomial operations, factoring, rational and complex expressions, linear equations, word problems, quadratic equations and graphical and algebraic solutions of simultaneous linear equations. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of FS MATH 3001,3002 with a grade of S, or ALEKS math score of 20+ or GED MATH of 145+, or HiSET MATH of 8+, or consent of dept.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR

Mathematics (MATH) 99
Intermediate Algebra with Geometry
Algebraic operations involving rational exponents, including scientific notation. Algebraic expressions, including radical and rational expressions. Solutions of quadratic, quadratic in form, rational, radical, and absolute value equations. Solutions of compound linear inequalities. Solutions and manipulations of literal equations of literal equations. Graphical and algebraic solutions of systems of linear equations in two and three variables; graphical solutions to systems of linear inequalities. Graphs of linear and quadratic equations. Geometry topics: perimeter, are of geometric figures, triangles, rectangles, and circles; volume of sphere, cylinder and pyramid. Pythagorean Theorem and distance formula. Similarity and proportions. Applications of problem-solving skills are emphasized throughout the course. Students should be exposed to graphing calculator technology and/or computer algebra systems. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 98 with a C or better, or completion of FS MATH 3003,3004 with grade of S, or ALEKS score of 30+, or GED MATH of 150+, or HiSET MATH of 10+, or Consent of dept.
5 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Mathematics (MATH) 100
Introduction to College Mathematics
This course will provide students with an introduction to college mathematics in two distinct ways. First, students will be exposed to foundational mathematical content that will put them in a position to be successful in their future mathematics courses. The four main topics of the course are numerical literacy, algebraic literacy, math modeling/functions, and graphing. Second, the course will provide students with a space to examine their perceptions, habits, and past experiences in mathematics in an effort to positively influence their future college math coursework and their mathematical identities. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of FS MATH 3000 with a grade of S, or ALEKS math score of 20+, GED 150, HiSet 10
6 Lecture hours. 6 Credit Hours.
Offered At: HW

Mathematics (MATH) 107
Math for Technicians I
Designed to provide mathematical tools for students in terminal technical curricula. Emphasis is on practical aspects of mathematics and less upon the theoretical. Topics include elementary algebra operations, simultaneous and quadratic equations, exponents and radicals, logarithms, introduction to trigonometry, vectors, and use of calculator. Writing assignments, as appropriate to the discipline, are part of the course.
1-5 Lecture Hours. 1-5 Credit Hours.
Offered At: KK, MX, OH

Mathematics (MATH) 108
Math For Technicians II
Continuation of Mathematics 107. Topics include trigonometric functions, solution of oblique triangles, vectors, Cartesian and polar coordinate systems, graphs of functions and basics of differential and integral calculus. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 107 or Placement Test, or Consent of Department Chairperson.
3-5 Lecture Hours. 3-5 Credit Hours.
Offered At: KK

Mathematics (MATH) 118
General Education Math
This course is designed to fulfill general education requirements. It is not designed as a prerequisite for any other college mathematics course. This course focuses on mathematical reasoning and solving of real-life problems. Three or four topics are to be studied in depth, with at least three chosen from the following list: counting techniques and probability, game theory, geometry, graph theory, linear programming, logic and set theory, mathematical modeling, mathematics of finance, and statistics. Applications involving problem-solving skills are emphasized throughout the course. Technology is an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
A minimum grade of 'C' in one of the following courses: MATH 90, MATH 97, MATH 99, or MATH 100; or a minimum grade of C in MATH 98 and concurrent or successful completion of MATH 18; or appropriate score on Placement Test; or Consent of Department Chair.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 904 GE: Mathematics

Mathematics (MATH) 121
Math For Elementary Teachers I
This course focuses on mathematical reasoning and problem solving. Topics include operations with rational and irrational numbers, sets, functions, logic, numeration systems and number theory, and solution of linear equations in one variable. Applications are included throughout the course. Problem-solving with the use of calculators and computers is emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course.
A minimum grade of 'C' in MATH 97 or MATH 99; or appropriate score on Placement Test; or Consent of Department Chair.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
GE: Mathematics

Mathematics (MATH) 122
Math For Elementary Teachers II
This course is a continuation of Mathematics 121. Topics include probability and statistics, lines, angles, polygons, Pythagorean Theorem, circles, solids, areas, volume, and measurements. Applications are included throughout the course. Problem-solving with the use of computes is emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 121, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: M1 903 GE: Mathematics

Mathematics (MATH) 124
Critical Mathematics
This course focuses on using mathematics to explore issues of social, political, and economic justice. This course is designed to fulfill general education requirements. It is not designed as a prerequisite for any other college mathematics course. This course focuses on mathematical reasoning applied to the lived experiences of the learners and their communities. At least four topics are to be studied, the multicultural history of mathematics, plus at least three of the following: geometry of neighborhood mapping; unit analysis, ratios, and the disproportion of opportunity; financial mathematics and the distribution of capital; statistics, data, correlations and contradictions; and the probability of injustice. Technology and mathematical modeling are an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
A minimum grade of 'C' in one of the following: MATH 90, MATH 97, MATH 99, or MATH 100; or a minimum grade of 'C' in MATH 98 and concurrent or successful completion of MATH 24; or appropriate score on Placement Test; or Consent of Department Chair.
4 Lecture hours. 4 Credit Hours.
Offered At: OH
IAI: M1 904 GE: Mathematics HD Course

Mathematics (MATH) 125
Introductory Statistics
This course focuses on mathematical reasoning and the solving of real-life problems. Topics addressed include: descriptive statistics (measures of center, variation, and position, and frequency distributions); basic probability theory (counting techniques, sample spaces, probability laws); probability distributions (normal and binomial); statistical inference, which includes estimation, hypothesis testing (z-test, t-test, and chi-square test), errors, and correlation/regression. Tools such as graphing calculators or computers are an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
A min grade of 'C' in one of the following courses: MATH 90 or MATH 97 or MATH 99 or MATH 100; or a minimum grade of C in MATH 98 and concurrent or successful completion of MATH 025; or appropriate score on Placement Test; or Consent of Department Chair.
4 Lecture Hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: BUS 901,M1 902 GE: Mathematics

Mathematics (MATH) 126
Algebra for Middle School Teachers
This course focuses on the concept of functions in college algebra. It is designed to meet the needs of middle school teachers in accordance to the National Council of Teachers of Mathematics Standards for Teaching Mathematics. Topics include basic definition of different functions and their properties. The following algebraic concepts will be explored: linear functions, systems of linear equations, quadratic functions, non-linear data, combinatorics, probability, exponential functions, log functions, square root functions, absolute value, and trigonometry as periodic functions. Problem solving using calculators, CBLs, and computers is emphasized throughout the course. Writing assignments as appropriate to the discipline are part of the course.
Grade of C or better in MATH 121 and MATH 122.
4 Lecture hours. 4 Credit Hours.
Offered At: TR, WR

Mathematics (MATH) 127
Geometry/Trigonometry for Middle School Teachers
This course focuses on the concepts of plane and solid geometry and trigonometry. It is designed to meet the needs of a middle school teacher in accordance with the National Council of Teachers of Mathematics Standard and the Professional Standards for Teaching Mathematics. Topics include basic definitions and properties of plane and solid figures, congruence, similarity, constructions, Pythagorean Theorem, measurements, transformations, the unit circle and right triangle trigonometry. Problem solving with the use of calculators and computers is emphasized throughout the course. Writing assignments as appropriate to the discipline are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: TR, WR
GE: Mathematics

Mathematics (MATH) 140
College Algebra
The focus of this course is on the concept of functions and their characteristics. These consist of polynomial, rational, radical, exponential and logarithmic functions, inverse functions, theory of equations and solving inequalities. The course also includes equations of circles, systems of linear equations, systems of non-linear equations, and matrices useful in solving linear systems. Applications involving problem-solving skills are emphasized throughout the course. Technology is an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 99 or higher with a C or better, or Completion of MATH 97 and Concurrent Enrollment in MATH 40; or appropriate score on Placement Test; or Consent of Department Chair.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
GE: Mathematics

Mathematics (MATH) 141
Plane Trigonometry
Definition of trigonometric functions, graphs of trigonometric functions and their universes. Applications to triangles, law of sines and cosines, trigonometric identities, equations, vectors and applications. Complex numbers in trigonometric form and DeMoivres Theorem. Calculators will be used. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 140 with a C or better, or ALEKS math score of 61+, or ACT Math 24+, or SAT Math 580+, or Consent of department.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
GE: Mathematics

Mathematics (MATH) 143
Pre Calculus
Pre-calculus emphasizes the notion of function as a unifying concepts for the topics of college algebra and an extension of the topics of trigonometry. The following families of functions and their characteristics are examined within this course: polynomial functions; rational functions; exponential and logarithmic functions; and trigonometric functions. Writing assignments, as appropriate to the discipline, are part of the course. Applications involving problem-solving skills will be emphasized throughout the course.
Completion of MATH 99 or higher with a C or better, or Completion of MATH 97 and Concurrent Enrollment in MATH 40; or appropriate score on Placement Test; or Consent of Department Chair.
6 Lecture hours. 6 Credit Hours.
Offered At: DA, KK, MX, OH, TR, WR

Mathematics (MATH) 144
Finite Mathematics
Logic, sets, partitions, counting, probability rules and Bayes Theorem, vectors and matrices, and linear programming. Includes applications to behavioral sciences and to business and administration problems. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 140 with a C or better, or ALEKS math score of 61+, or ACT Math 24+, or SAT Math 580+, or Consent of department.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 906 GE: Mathematics

Mathematics (MATH) 146
Discrete Mathematics
Introduction to mathematical analysis of finite collections and mathematical foundations of sequential machines, digital logic circuits, data structures, and algorithms. Includes sets, counting, recursion, graph theory, nets, automata, and formal grammars and languages. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 140 with a C or better, or ALEKS math score of 61+, or ACT Math 24+, or SAT Math 580+, or Consent of department.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: CS 915,M1 905 GE: Mathematics

Mathematics (MATH) 202
Number Concepts/Mid-School Teaching
This course has been designed keeping in mind both the Illinois Professional Content Standards for Teaching (Mathematics) and the content necessary to prepare students to be middle school mathematics and science teachers. A wide range of topics across number of theory and measurement will give the students a grasp of the depth and breadth of mathematics outside of the traditional course structure. Problem solving, estimation, measurements, and construction of simple theories of numbers will be treated with and without the use of technology. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (MATH 113, or MATH 126, or MATH 140, or MATH 143).
4 Lecture hours. 4 Credit Hours.
Offered At: TR, WR

Mathematics (MATH) 204
Calculus For Business & Social Sciences
This course provides an introduction to differential and integral calculus with specific applications to business and social science. The use of technology (e.g., graphing calculator, an algebraic system, etc.) and writing as appropriate to the discipline will be emphasized in this course.
Completion of MATH 140 with a C or better, or ALEKS math score of 61+, or ACT Math 24+, or SAT Math 580+, or Consent of department.
4-5 Lecture Hours. 4-5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 900-B GE: Mathematics

Mathematics (MATH) 207
Calculus & Analytic Geometry I
Topics include (but are not limited to) the following: limits and continuity of functions; definition of derivative, rate of change, slope; derivatives of polynomial, rational, trigonometric functions, inverse trigonometric functions, exponential, and logarithmic functions; the chain rule; implicit differentiation; applications of the derivative; indeterminate forms and L'Hôpital's rules; approximation by differentials; higher-order derivatives; Rolle's Theorem and mean value theorem; antiderivatives and the definite integral including the substitution method; the fundamental theorem of calculus. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of MATH 140, 141 with a C or better, or completion of MATH 143 with a C or better, or ALEKS score of 76+, or ACT Math 24+, or SAT Math 580+
5 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 900-1,MTH 901 GE: Mathematics

Mathematics (MATH) 208
Calculus & Analytic Geometry II
Topics include (but are not limited to) the following: applications of the integral; area, physics applications, a rigorous analytic approach to the definitions and properties of logarithmic, exponential functions, and introduction of hyperbolic functions; techniques of integration, including numerical methods, integration by parts, trigonometric substitution, and partial fractions; improper integrals; sequences and series, convergence tests, Taylor and Maclaurin series; parametric equations; polar coordinates and equations of curves, Cartesian, and polar equations of conic sections. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 207, or Consent of Department Chairperson.
5 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 900-2,MTH 902 GE: Mathematics

Mathematics (MATH) 209
Calculus & Analytic Geometry III
Topics include (but are not limited to) the following: geometry of the three-dimensional space; equations and graphs of quadratic surfaces; vectors in 2 and 3 dimensions, vector operations; lines and planes in space; calculus of vector valued functions, curvature of curves, Frenet frame vectors, planes, and lines; functions of more than one variable, partial derivatives; the differential, directional derivatives, gradients; extreme values and saddle points of functions of two variables; double and triple integrals, evaluation and applications; using substitution methods that include cylindrical, spherical coordinates, as well as more general transformations. Evaluation of double, and triple integration; line integrals, and their applications; fundamental theorem of line integrals; Green's theorem; surface integrals, and their applications; Stokes' theorem; divergence theorem. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 208, or Consent of Department Chairperson.
5 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: M1 900-3,MTH 903 GE: Mathematics

Mathematics (MATH) 210
Differential Equations
A first course in ordinary differential equations: solutions of first order and first degree differential equations, linear differential equations with constant co-efficients. Linear differential equations of higher order, special differential equations of second order and differential equations of first order but not of first degree. Numerical methods, series solutions and applications included. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 208, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: MTH 911,MTH 912

Mathematics (MATH) 212
Linear Algebra
Introduction to linear algebra for students who have studied some calculus; computations with vectors and matrices will be emphasized, proofs also will be examined; major topics include systems of linear equations and matrices, determinants, vectors in Euclidean space, abstract vector spaces, linear mappings, computation of eigenvalues and eigenvectors. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 208, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: MTH 911

Mathematics (MATH) 216
Statistics For Business Majors
The basic concepts of statistical analysis used in business decision-making, including probability and how uncertainty is dealt with in real life. The student will analyze and work out simple problems and should be able to recognize applications of different statistical techniques, interpret the results of analysis and recognize instances in which statistical techniques have been misused. The following concepts and statistical techniques are included: measure of central tendency and variability, random variable and probability distributions, estimation, tests of hypotheses, chi square tests, linear regression and correlations and one-way analysis of variance. Applications are included throughout the course. Problem solving with the use of calculators and computers is emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 140, Placement Test or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, TR
IAI: BUS 901

Mathematics (MATH) 299
Special Topics Mathematics
Special Topics in Mathematics will be discussed along with appropriate computer and calculator activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Each special topic course will have a sub-title. Students can take courses with different sub-titles and receive credit for each. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-6 Lecture Hours. 1-6 Credit Hours.
Offered At: DA, HW, KK, OH, WR
Repeatable: Yes, up to 4 times

Media Communication (MEDIACM)

Media Communication (MEDIACM) 102
Announcing
Develops the ability to transform written copy or script into voice performance emphasizing copy preparation, breath control, pronunciation, articulation, use of full dynamic range, microphone techniques, and hand signals. A variety of copy, including commercials, news and public service announcements will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, WR
IAI: MC 918

Media Communication (MEDIACM) 145
Intro To Media Communication
A survey of the history, technology, structure and operation of the telecommunications industry. Topics include advertising, audience measurement, network television, radio station operations, cable television, broadcast regulations and licensure, satellite communications, pod casting, and careers in media communications. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
IAI: MC 911

Media Communication (MEDIACM) 190
Language, Culture and Media
Television, radio, print and film reflect and transmit culture through language and images. Using these media as a context, this course will examine a variety of depictions of culture and language and will evaluate perceptions about language and culture within various segments of society. Students will be encouraged to think critically about language choices and to analyze the impact of culture and media on those choices. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 203
Media Writing
Creation and preparation of scripts for radio and television programs and segments which include news copy, commercial copy, public service announcements. Special attention will be paid to correct format and form. Word processing skills will be utilized in this course. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
IAI: MC 917

Media Communication (MEDIACM) 221
Radio Production I
This course is designed as an introduction to the audio control system and training in the operation of related equipment. Emphasis will be placed on how the various components integrate into a system. Demonstration of expertise through class exercises and laboratory projects is required. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK
IAI: MC 915

Media Communication (MEDIACM) 222
Radio Production II
Review the audio control system and its various equipment components. Emphasis will be placed upon creating, producing, and directing service announcements, news and drama which may be utilized by Kennedy-King's own WKKC-FM. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 221, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 223
Advanced Broadcast Writing
As a direct continuation of course MEDIACM 203-Media Writing. This class provides experience in writing longer scripts, for various types of media outlets such as television, radio, and the Internet. With an emphasis on content, clarity and flow. Basic script formats, terminology, and writing techniques for documentaries, commercials, public service announcements, promos, as well as entertainment and fictional programs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 203 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 231
TV Production I
Introduction to the television production system and training in the operation of the video and audio equipment necessary to produce programming. Emphasis will be how the various components integrate into a system. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK
IAI: MC 916

Media Communication (MEDIACM) 232
TV Production II
Continuation in the development of expertise in the use of various audio and video components. Television production projects will require creating treatments, storyboards, and scripts, for the production of a final program. Emphasis on integration of equipment, production personnel, and script to create finished television production. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 231, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 234
Producing for Television
An examination of the vital role of the television producer, focusing on the three areas of production: pre-production, production, and post production. Emphasis on the importance of planning, show creation, budgeting, scheduling, management, team building, field producing, and delivery. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 223 and MEDIACM 231 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 240
Minicam & Videotape Editing
Evaluate, set-up, light, mike, and properly record in a single-camera remote environment for desired production results. Learn to log and electronically computer edit recorded footage into professional programs and program segments. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 245
Advanced Production Workshop
Learn the steps necessary to develop a program concept or idea into a completed radio and/or television program. Emphasis is placed upon the coordinating of technical, budgetary, personnel, scheduling, and equipment aspects of achieving effective productions. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 222 or MEDIACM 232 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 250
Mini-Cam & Video Editing II
As a direct continuation of Media Communications 240, this class provides instruction in advanced video camera recording and digital editing techniques. Students are introduced to multiple industry standard editing software programs, as well as motion graphics. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 240 or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 252
Audio Engineering I
This course is designed to introduce students to basic audio engineering practices for film, video production, sound broadcasting, advertising, and live events. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 222 or MEDIACM 232 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 265
Digital Media Entrepreneurship
This course introduces students to the fundamentals of entrepreneurship and changing media industry business models. Students are exposed to best practices for developing viable concepts, financial management and controlling the organization. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MEDIACM 145 or Consent of Department Chairperson.
2.5 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 271
Intro to Interactive Media
A practical introduction to interactive media, otherwise known as the Internet. While in this course, students will become better acquainted with new technologies and methods for creating participatory media, while making it available through nontraditional outlets. Students will develop new ideas for assisting in this tradition, with both the Internet, as well as the traditional broadcast space. Class topics will also cover the technologies that go hand in hand with both the creation and utilization of interactive "new" media. This course will emphasize group projects. Students will be introduced to the unique issues encountered while producing for interactive media, such as streaming, bandwidth, compression, memory allocation, and optimization. Various distribution media will be examined including CD-ROM, DVD, and the Internet. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and Grade of C or better in (MEDIACM 145 and CIS 120), or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 280
Advanced Editing, Graphics, and Animation
A direct continuation of Media Communications 250, this course introduces students to motion graphics, visual effects, and animation using industry standard software for film and video projects.
Grade of C or better in MEDIACM 250 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Media Communication (MEDIACM) 295
Practicum Internship
Planned and supervised training which allows the application of theory to actual practice prepares a student for working independently toward specific career objectives. The internship/practicum generally occurs after the student has completed eighteen MEDIACM credit hours. It takes place at a regular worksite and instruction/supervision is provided by an employee at the worksite. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Media Communication (MEDIACM) 298
Audio, Video or Internet Capstone
After satisfactory completion of all Media Communications courses, this course is intended to provide students with the opportunity to integrate their television, radio, and internet skills by preparing an actual portfolio suitable for employment in the media industry. With an emphasis on quality, the Capstone portfolio will feature a variety of product projects to showcase specific, industry related skills obtained while enrolled in the Media Communications program at Kennedy-King College. In addition, students will create a marketing package for themselves, including a resume, business cards, interactive website, and audition/resume disk. Student must obtain consent of Program Director to take this course concurrently with their internship course, MEDIACM 250. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Medical Assisting (MEDASST)

Medical Assisting (MEDASST) 102
Medical Law & Ethics
This course considers the standards of ethical conduct toward patients, colleagues and other members of the medical team. Legal responsibility, professional liability, licensing, contracts and other applications of law in medicine will be included. This course discusses what medical career students should know to give competent, compassionate care to patients that is within acceptable legal and ethical boundaries. It can also serve as a guide to help the students resolve the many legal and ethical questions that they may find to expect. Pertinent legal cases, anecdotes, and sidebars related to health careers are presented in this course as well as how legislation affects health care. Writing assignments, as appropriate to discipline, are in part of the course.
Acceptance into the Medical Assisting program.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 103
Medical Assisting Clinical Procedures I
This course is designed to introduce students to basic clinical procedures in the medical office assisting field. Students will learn to perform basic skills and assist with procedures common to the medical office. Instruction will include classroom and laboratory as learning experience. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Medical Assisting Program.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 104
Medical Assisting Clinical Procedures II
This course is designed to build upon the knowledge and skills developed in Clinical I. Students will learn to perform clinical skills and assist with procedures common to the medical office. Instruction will include classroom and laboratory learning experiences. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Medical Assisting Program.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 105
Medical Careers Professional Development
This course explores professional issues that affect the medical assistant. Current trends in education, certification, and employment will be discussed and their impact on the practicing medical assistant will be emphasized. Communication skills that will enhance the performance of the medical assistant will also be reviewed. Employment seeking techniques such as resume preparation and interviewing skills will be included. Writing assignments, as appropriate to the discipline are part of the course.
Acceptance into the Medical Assisting program.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 106
Administrative Procedures
This course will explore administrative and front office responsibilities in the physician's practice or clinical setting. Emphasis is placed on clerical functions, including verbal and written communication, patient reception, and records management. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Medical Assisting program.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 107
Pharmacology
This course introduces the students to the basic skills that are performed by the medical assistant in the medical office. The course will emphasis the principles of pharmacology as they relate to medication administration in the medical office and clinical settings. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Medical Assisting Program.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 108
Fundamentals of Ambulatory Billing and Coding
This course covers performance of coding procedures; application of third party and managed care policies, procedures, and guidelines, including obtaining referrals and pre-certifications; billing for services, including insurance claim forms and use of a physician's fee schedule. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Medical Assisting Program.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Medical Assisting (MEDASST) 109
Medical Assisting Practicum
This course requires medical assisting students to integrate and apply knowledge and skills from all previous medical assisting courses in an actual ambulatory health care setting. Students will be assigned to the clinical sites. Writing assignments, as appropriate to the discipline, are part of the course.
Current CPR certification and completion of all coursework in the Medical Assisting Program including , MEDASST 102, 103,104,105, 106,107 and 108.
15 Laboratory hours. 3 Credit Hours.
Offered At: MX

Mental Health (MENHLTH)

Mental Health (MENHLTH) 223
Intro To Addictions Studies
Includes treatment strategies, perspectives and understanding of the addiction process and its effects upon the individual, the family, employers, and society. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, WR

Mental Health (MENHLTH) 224
Principles and Practices of Addiction Studies
Basic clinical skills in alcoholism and substance abuse field; strategies in working with denial and resistance; diagnostic and assessment skills; history-taking; individual, family and group treatment modalities utilized with the alcoholic and/or substance abuser; termination process; aftercare and referral process. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MENHLTH 223, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR

Mental Health (MENHLTH) 228
Principles of Mental Health Practices
Mental health, the settings in which mental health problems are treated, and common types of mental health problems; review of treatment strategies and methods of intervention. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, MENHLTH 223, 224, 230,231, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Mental Health (MENHLTH) 229
Practicum In Addictions Treatment
Students work 20 hours per week in a mental health setting in the community under supervision of mental health professionals and participate in a two-hour seminar once a week, relating field experiences to mental health theory. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MENHLTH 223, 224, 230, 231 or Consent of Department Chairperson. Must attend a mandatory orientation and prior acceptance of program and secure an approved practicum site before the first day of class.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: HW, KK, WR

Mental Health (MENHLTH) 230
Addictions & Family Treatment
Study of affects of alcoholism and substance abuse of the family; how spouse, children and extended family react to problematic drinking or drug abuse; examination of treatment including self-help groups. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (MENHLTH 223 and MENHLTH 224), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR

Mental Health (MENHLTH) 231
Addictions Treatment of Special Populations
Application of needs of special treatment populations, diagnosis and treatment of adolescent and elderly clients, sexual issues; patient education, prevention strategies, spirituality, relapse prevention and employee assistance programming, AIDS and eating disorders. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (MENHLTH 223 and MENHLTH 224 and MENHLTH 230), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR

Mental Health (MENHLTH) 232
CADC Examination Review
Basic clinical skills in alcoholism and substance abuse; strategies in test taking, overview of core functions and competencies and overview and practice of State examination. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MENHLTH 230 and 231 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Microbiology (MCROBIO)

Microbiology (MCROBIO) 233
General Microbiology
Morphology, physiology, classification and culture of bacteria and related organisms. The role of bacteria related to human welfare and to plants and animals. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated eight credit hours will be counted towards graduation.
Grade of C or better in BIOLOGY 121.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Microbiology (MCROBIO) 234
Applied Microbiology
A sequence course to a second semester fundamentals course in microbiology. This course is designed for students majoring in biotechnology. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MCROBIO 233.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: TR

Microbiology (MCROBIO) 236
Applied & Environmental Microbiology
The goal of this course is to learn about the use of microogranisms (bacteria, archaebacteria, protists, fungi, and viruses) in the population of pharmaceuticals, foods, and industrial chemicals, as well as in applications such as bioremediation. Specifically, genetic engineering and biotechnology will be discussed. Secondly, interaction of microrganisms with other organisms and the physical environmental will be explored. In particular, microbial ecology, biogeochemical cycles, and public health microbiology will be addressed. Field sampling methods and analytical techniques (including molecular biology methods) will be utilized. Writing assignments, as appopriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 121.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: OH

Mortuary Science (MOR SCI)

Mortuary Science (MOR SCI) 102
Microbiology For Embalmers
The basic principles of microbiology related to the principles of funeral service education, especially as they pertain to embalming sanitation, morgue disinfection, public health, and embalming practice. The development and use of personal, professional and community hygiene and sanitation is discussed. The methods of transmission of infectious diseases, control procedures of these diseases with special emphasis on protection to the embalmer are described to differentiate between indigenous microorganisms and pathogens and/or opportunists causing diseases commonly associated with the human host and dead human remains. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 120, BIOLOGY 121 and HLH SCI 102.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 104
Pathology For Embalmers
This course in Pathology is designed to study the pathological conditions of the human body in its postmortem state and how those pathological conditions affect various parts of the body, with particular emphasis on those conditions which relate to or affect the embalming or restorative art process. Pathological conditions discussed will dictate the embalming procedures, methods and chemicals for preservation required by the embalmer. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in BIOLOGY 120, BIOLOGY 121 and HLH SCI 102.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 108
Accounting In Funeral Service
An introduction to basic principles of accounting theory. Applications to funeral home operations are made throughout financial statements and their analysis, worksheets, journalizing, receivables, payables, deferrals and accruals. Inventory cost models for funeral merchandise, is covered along with depreciation models and payroll accounting. Accounting proficiencies will enable the understanding of funeral service records and the funeral directors guidelines of funeral arrangements as prescribed by Federal Trade Commission Regulations rule on funeral industry practices. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Mortuary Science program/plan 257.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 109
Sociology For Funeral Service
Sociology studies family structures, social structures, and the factors of change within those groups. This course relates those factors of change to the impacts of death and the relationship of the role of the funeral director in providing closure through funeral rites, ceremonies, customs, religion and rituals. Emphasis is placed on the cultural requirements and diversities of each family the funeral director is privileged to serve and an awareness of the changing social factors, which affect American Funeral Rites and the families served. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into the Mortuary Science program/plan 257.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 117
History of Funeral Service
A survey of the history of funeral service with emphasis on the individuals, events, and forces that have influenced contemporary funeral principles and practices as well as the progression of associations and education within funeral service. Computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in ENGLISH 101, SPEECH 101, MATH 118 or higher General Education Math Course, BIOLOGY 116 (or both BIOLOGY 226 & BIOLOGY 227), and BIOLOGY 120, or consent of the Program Director.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 118
Microbiology & Pathology for Embalmers
This course is designed to study the disease processes and their impact on the human body, with emphasis on those conditions which relate to or affect the handling of human remains. The course covers the basic principles of microbiology, as it relates these principles to Funeral Service Education especially as they pertain to sanitation, disinfection, public health, and embalming practice. The development and use of personal, professional and community hygiene and sanitation are discussed. Computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in English 101, Speech 101, Math 118 or higher General Education Math Course, Biology 116 (or both BIOLOGY 226 & BIOLOGY 227), and Biology 120, or consent of the Program Director.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 119
Chemistry For Embalmers
This course is a survey of the basic principles of chemistry as they relate to funeral service. Emphasis is on the chemical principles and precautions involved in the preservation and disinfection of the dead human body. Computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in ENGLISH 101, SPEECH 101, MATH 118 or higher General Education Math Course, BIOLOGY 116 (or both BIOLOGY 226 & BIOLOGY 227), and BIOLOGY 120, or consent of the Program Director.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 120
Social Science for Funeral Service
This course covers the basic principles of sociology as they relate to funeral service. Emphasis is placed on family structures, social structures, and the factors of change that relate to funeral practices. Covered in the course are the basic principles of psychology and counseling as they relate to funeral service. Especially stressed are the psychological concepts in the areas of grief, bereavement, mourning, aftercare, and crisis intervention with emphasis on the role of the funeral practitioner.
Grade C or better in English 101, Speech 101, Math 118 or higher General Education Math Course, Biology 116 (or both BIOLOGY 226 & BIOLOGY 227), and Biology 120, or consent of the Program Director.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 121
Restorative Art
A survey of the basic principles of Restorative Art as they relate to Funeral Service. Stressed are the techniques of restoring and recreating an acceptable physical appearance of the deceased. Computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MOR SCI 117, MOR SCI 118, MOR SCI 119, MOR SCI 120
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 122
Embalming Theory I
This course is a survey of the process of chemically treating human remains to reduce the presence and growth of microorganisms to temporarily inhibit organic decomposition, and to restore an acceptable physical appearance. The subject includes the study of death of the human body, government regulations applicable to the embalming process, embalming analysis and reports, instrumentation, and various conditions encountered with human remains. Computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MOR SCI 117, MOR SCI 118, MOR SCI 119, MOR SCI 120
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 123
Funeral Directing & Cremation
This course focuses on the basic duties, responsibilities, and expectations of those practicing funeral service. This includes notification of death, transfer of remains, conduct of the arrangement conference, prefunded/preplanned funerals, religious practices, fraternal funerals and military honors, shipment of remains, final disposition, aftercare, and regulatory and legislative compliance. The Cremation Curriculum is intended to give the student an overview of cremation topics including proper procedures, legal considerations, services, merchandise, trends, and the history of cremation. The curriculum is not crematory operator training. Writing assignments, as appropriate to the discipline, are part of the course. Computer and computer skills required.
Grade of C or better in MOR SCI 117, MOR SCI 118, MOR SCI 119, MOR SCI 120
3 Lecture hours. 3 Credit Hours.
Offered At: MX
HD Course

Mortuary Science (MOR SCI) 124
Anatomy for Embalmers
The study of the human body with particular emphasis on those systems providing the foundation for embalming, pathology, public health, and restorative art. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MOR SCI 117, MOR SCI 118, MOR SCI 119, and MOR SCI 120
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 209
Funeral Management & Merchandise
This course covers the construction and features caskets, outer burial containers, and other funeral related products such as cemetery headstones and markers. Merchandising examines methods of purchasing, pricing, display, and sale of funeral merchandise as well as services. Emphasis are placed on the component parts of funeral merchandise, including materials used, component part styles, finishes, dimensions/functions and pricing methods. General management techniques and theory as they relate to specific funeral home operational procedures and practices are emphasized. Management examines specific areas of funeral service practice and the managerial guidelines for the contemporary concepts of funeral service management as they relate to client families and community, staff personnel, and professional associates and associations/agencies. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
MOR SCI 203.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 211
Psychology Of Funeral Service
The underlying value and relevance of this course for preparing the funeral director is that the symbolic and ritualistic aspects of the funeral have a significant impact upon the emotional experience of the bereaved. Emphasis on the grief process and its variations across individuals as influenced by psychological factors aids the funeral director in becoming a facilitating agent for effective mourning through personal interactions as well as the design and implementation of the funeral service. This course will also prepare the funeral director to know when to make a referral for mental health services. Issues relating to children and death and particular theories/theorist are also stressed. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Acceptance into program/plan 257 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 217
Business Communication
Computer and computer skills required. This course outlines the basic principles of effective communication skills as they relate to funeral service. Topics include: the communication process; language; nonverbal, verbal and written communication; listening; self-concept; public speaking; interpersonal, group, and business communication with an emphasis on soft skills; etiquette and the use of technology in funeral service practice. The course also covers the Federal Trade Commission and the Trade Regulation Rule on Funeral Industry Practices. The Funeral Rule requires that funeral providers disclose detailed information about prices and legal requirements to persons arranging funerals. The Rule also requires disclosure of specific itemized price information and prohibits specific unfair practices and misrepresentations. This course covers professional ethics and their relation to funeral service. Proper training in ethics increases awareness of the need to build trust and rapport. This knowledge will help funeral practitioners do what is proper and in the best interest of those they serve while maintaining the public trust. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 121, MOR SCI 122, MOR SCI 123, and MOR SCI 124 or consent of the Program Director.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 218
Mortuary And Business Law
The subject area guidelines for Funeral Service Law are designed to introduce the student to rights, duties, and responsibilities of the funeral service practitioner and funeral establishment; including but not limited to: state and federal laws, regulations and administrative agency law pertaining to funeral service including preneed; torts involving the dead human body and the funeral service practitioner; wills, estates, probate and related matters; cemeteries, crematories and issues related to final disposition; sources of law; the legal status of the dead human body; the right to control funeral arrangements and final disposition and liability for funeral expenses; and the legal aspects of being licensed to practice in funeral service (funeral director, embalmer, etc.). This course is a survey of the basic principles of business law as they relate to funeral service. Included are the bodies of law and the judicial system found in the United States of America, contracts, sales, consumer protection, bailments, employment, agency, business organizations, and insurance. Computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 121, MOR SCI 122, MOR SCI 123, MOR SCI 124 or consent of Program Director
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 219
Restorative Art Laboratory
Applied experience in restoring damaged human remains to achieve a normal life appearance of the deceased. Study of techniques employed to bring about restoration of a deceased human being to as near a normal appearance as possible. The subject area for restorative art is designed to introduce the techniques and importance of creating an acceptable appearance of the deceased for the benefit of the surviving family members. A computer and computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 121, MOR SCI 122, MOR SCI 123, MOR SCI 124 or consent of Program Director
1 Laboratory hours. 3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 220
Embalming Theory II
This course is a survey of the process of chemically treating human remains to reduce the presence and growth of microorganisms to temporarily inhibit organic decomposition, and to restore an acceptable physical appearance. The subject includes the study of death of the human body, government regulations applicable to the embalming process, embalming analysis and reports, instrumentation, and various conditions encountered with human remains. A computer and computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 121, MOR SCI 122, MOR SCI 123, MOR SCI 124 or consent of Program Director
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 221
Funeral Management with Accounting
This is a broad overview of the basic principles of funeral service management. General management theory is applied to funeral service practice with a focus on concepts, functions and areas of management. In addition, trends in funeral service and disaster preparedness are explored. An exploration of small business management, its benefits and risks. Emphasis is given to business formation, development, management, and marketing. Human resources, accounting, trends, and the use of technology are also analyzed. Computer skills required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 217, MOR SCI 218, MOR SCI 219, MOR SCI 220
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 222
Embalming Laboratory
This course is a survey of the process of chemically treating human remains to reduce the presence and growth of microorganisms to temporarily inhibit organic decomposition, and to restore an acceptable physical appearance. The subject includes the study of death of the human body, government regulations applicable to the embalming process, embalming analysis and reports, instrumentation, and various conditions encountered with human remains. A computer and computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better in MOR SCI 217, MOR SCI 218, MOR SCI 219, MOR SCI 220 or consent of Program Director
6 Laboratory hours. 2 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 223
Funeral Merchandising
The curriculum guideline for Funeral Merchandising is designed to introduce the funeral service student to the basics of merchandising as they apply to the funeral profession. Funeral providers as defined by the FTC in 1984 offer both service and merchandise. This outline considers both service and merchandise as the products provided by funeral service practitioners. The curriculum is divided into two main sections. The first covers construction and features of caskets, outer burial containers, and other funeral and cemetery products. The second section of the curriculum guideline examines methods of purchasing, pricing, display, and sale of funeral and cemetery merchandise as well as funeral and cemetery services. Computer skills are required. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MOR SCI 217, MOR SCI 218, MOR SCI 219, and MOR SCI 220
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Mortuary Science (MOR SCI) 224
Advanced Mortuary Practice Capstone
This capstone course includes a survey of topics providing an overview of various tasks and subjects a funeral director/embalmer will encounter in the role of a practitioner. Legal, compliance, and ethical topics are covered. An overview of the curriculum and the practical application of theory as it relates to the ethical practice of funeral service is included. Writing assignments, as appropriate to the discipline, are a part of the course.
Grade of C or better in MOR SCI 217, MOR SCI 218, MOR SCI 219 and MOR SCI 220
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Music (MUSIC)

Music (MUSIC) 101
Fundamentals of Music Theory
Introduction to music theory and application: rhythm, meter, scales, intervals, triads and musical terminology; development of aural and keyboard skills. Writing assignments, as appropriate to the discipline, are part of the course. No credit toward graduation for music majors.
Eligibility for MATH 99 or Higher or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Music (MUSIC) 102
Music Theory I
Realization of figured and unfigured bases and harmonization of melodies. Triads and inversions. Harmonic analysis. Keyboard application. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 101, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR, WR

Music (MUSIC) 103
Music Theory II
Realization of figured and unfigured bass and harmonization of melodies. Chords of the seventh and ninth sequences, diatonic modulation. Harmonic analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 102, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 105
Group Piano I
Class instruction in beginning piano techniques through study in small groups. Writing assignments, as appropriate to the discipline, are part of the course. 1 lecture and 2 lab hours per week.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Music (MUSIC) 106
Group Piano II
Continuation of Music 105. Minimum of six hours practice per week required for credit. Students majoring in music are required to take two semesters of study with a private instructor following this course. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 105, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: DA, HW, KK, MX, OH, WR

Music (MUSIC) 107
Jazz Improvisation Pt I
Fundamentals of improvisation; performing improvised solos, both on standard chord changes and original compositions. Topics covered include: ear training, II-V-I progressions, substitutes of the Ii-V-I progression, simple blues, bebop scales, intervals and random chord exercises which lead to altered dominants and more contemporary concepts. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 101 and concurrent enrollment in MUSIC 135, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 108
Jazz Improvisation Pt II
Further study of improvisation: performing improvised solos on standard chord changes and original compositions. The covered topics include altered dominant seventh chords, the 12 tone row, advanced blues, rhythm changes, turnarounds, learning tunes by ear, and improvising on them, extensions, substitute chords, modal harmony, free improvisation, note positions and other scales. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 107 and concurrent enrollment in MUSIC 135, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 109
Jazz/Pop Ensemble
Rehearsal and performance of songs from jazz and popular music repertoires. In addition, the course will cover the skills needed as a professional musician. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 110
Jazz/Pop Ensemble: Blues Emphasis
Rehearsal and performance of songs in the blues genre. In addition, the course will cover the skills needed to succeed as a professional musician. Repeatable for credit up to four credit hours. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK, WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 111
Aural & Keyboard Skills I
Sight singing, ear training and rhythmic dictation with keyboard application. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 101, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, OH, WR

Music (MUSIC) 112
Aural & Keyboard Skills II
Continuation of Music 111. Advanced ear training and sight singing, melodic dictation and more complex harmonic structures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 111, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, OH, WR

Music (MUSIC) 113
String Class
Class instruction in fundamentals of violin, viola, violoncello and string bass; principles of bow control and elementary left hand technique; each student required to demonstrate techniques and develop performing technique; readings to be assigned. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: WR

Music (MUSIC) 114
Guitar Class
Programmed, audio-visual music course, emphasizes the development of guitar playing skills. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 119
Percussion Class
Class instruction in percussion instruments; each student required to demonstrate techniques and develop performing ability; readings to be assigned. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 120
Introduction to Music Business
Overview of the music business including recording, publishing, management, marketing and other related topics. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, MX

Music (MUSIC) 121
Introduction To Music
Elements, structure, listening, literature, aesthetic perspective; concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: F1 900 GE: Fine Arts

Music (MUSIC) 122
Perspectives In Jazz
Introduction to jazz, its historical background and its development in the United States. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH

Music (MUSIC) 124
Trends In Mod Amer Music
Exploration of what has been happening in this century in American music; includes review of social conditions that have nourished these trends and discussion of folk, blues, jazz, country and western, rock, musical theater, and classical music. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: F1 904 GE: Fine Arts

Music (MUSIC) 131
Chorus
This course trains students in vocal performance, familiarizes them with choral literature, and provides opportunities for public performances and musical performances for college functions. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated six credit hours will be counted towards graduation.
1 Lecture Hours. 0.5-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: HW, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 133
Concert Band
Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted towards graduation.
Consent of Department Chairperson.
0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 134
Orchestra
Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted towards graduation.
Consent of Department Chairperson.
0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 135
Instrumental Ensembles
String quartets, brass ensembles, jazz workshops, stage band. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted towards graduation.
Consent of Department Chairperson.
0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: HW, WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 136
Vocal Ensembles
Madrigal groups, trios, quartets, etc. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted towards graduation.
Consent of Department Chairperson.
0.5 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: HW, TR, WR
Repeatable: Yes, up to 4 times

Music (MUSIC) 150
Class Voice I
Group instruction in fundamentals of singing, voice production, breathing, diction, vocalizing, and technical exercises; elementary song literature as student progresses. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, OH, WR

Music (MUSIC) 151
Class Voice II
Continued development of proper use of the voice; greater attention to literature; songs in English, Italian, German. Writing assignments, as appropriate to the discipline, are part of the course. Juried examination for credit.
Grade of C or better in MUSIC 150, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 180
Applied Music-Elective Level
Individual instruction in applied music to prepare students for Music 181. Includes private lesson (minimum of one hour). Writing assignments, as appropriate to the discipline, are part of the course.
Students must own (or have access to) the instrument they plan on studying.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 1 times

Music (MUSIC) 181
Applied Music-Freshman Level I
Individual instruction in applied music. Includes weekly private lesson (minimum of one hour). First of a four-course sequence of private music lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 182
Applied Music-Freshman Level II
Continuation of the process initiated in Music 181. Individual instruction in applied music. Includes weekly private lessons (minimum of one hour). Second of a four-course sequence of private music lessons required of students in Associate in Fine Arts Music curriculum. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 181, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 183
World Music
A study of representative music of the non-Western world, with an emphasis on its function within the culture of which it is a part. Elements, structure, listening, aesthetic perspectives; concert attendance. Students need no prior formal training or education in music to take this course. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: F1 903N GE: Fine Arts HD Course

Music (MUSIC) 200
Black Music Workshop
Contributions of African-American musicians to development of classical music, American style; study of work of contemporary artists, use of Afro-Cuban instruments. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: MX, OH
HD Course

Music (MUSIC) 201
Music Theory III
Written harmonization of melodies with strict style figuration. Eleventh and thirteenth chords, modal and chromatic alterations, chromatic modulation. Harmonic analysis. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 103, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 202
Music Theory IV
Extended tonality, chromatic harmonies, contemporary harmonic trends, inharmonic modulation. Harmonic analysis. Keyboard application. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 201, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 204
Commercial Music Workshop I
Composition, arrangement, and performance of commercial music. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK

Music (MUSIC) 205
Commercial Music Workshop II
Continuation of Music 204. Extended original composition; use of microphone and recording techniques; their influence upon orchestration. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 204, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK

Music (MUSIC) 211
Aural and Keyboard Skills III
Continuation of Music 112. Further development of aural perception (melodic, rhythmic, and harmonic dictation) and abilities in sight-singing (single melodies and duets). Application of harmonic concepts at the keyboard. This course is the third in a four-semester sequence of courses in which music majors need to enroll each term of the freshman and sophomore year. The course may be offered separately or with one or more topics combined. Aural skills include sequential development of ear training, sight singing, and dictation and may also include computer-assisted instruction and/or other applications. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 112, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 212
Aural and Keyboard Skill IV
Continuation of Music 211. Further development of aural perception (melodic, rhythmic, and harmonic dictation) and abilities in sight-singing (single melodies and duets). Application of harmonic concepts at the keyboard. This course is the fourth in a four-semester sequence of courses in which music majors need to enroll each term of the freshman and sophomore year. The course may be offered separately or with one or more topics combined. Aural skills include sequential development of ear training, sight singing, and dictation, and may also include computer-assisted instruction and/or other applications. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in MUSIC 211, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 221
Music Literature & History
Introduction to the standard concert repertory through intensive guided listening. Representative works by major composers are chosen to illustrate the principal styles, forms and techniques of vocal and instrumental music. Assumes a fundamental knowledge and understanding of the elements of music. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR
IAI: F1 900,F1 901 GE: Fine Arts

Music (MUSIC) 225
Individual Project
Individual project as determined with the instructor. Students would also be required to complete an internship as chosen through a discussion with the instructor. Eligibility for course repetition for additional credit hours determined by the instructor. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated four credit hours will be counted towards graduation.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW
Repeatable: Yes, up to 2 times

Music (MUSIC) 281
Applied Music-Sophomore Level I
Individual instruction in applied music. Includes weekly private lesson (minimum of one hour). Third course in a four-course sequence of private music lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 182, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Music (MUSIC) 282
Appl Music-Soph Lvl II
Individual instruction in applied music. Includes weekly private lesson (minimum of one hour). Last course in a four-course sequence of private music lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MUSIC 281, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, WR

Networking Technologies (NET TEC)

Networking Technologies (NET TEC) 101
Client-Server Database I
This course introduces client-server Relational Database Management Systems (RDBMS) that are commonly used to design scalable databases. Topics include relational database terminology and concepts, database design using Normalization, Data Modeling and Entity-Relationship (ER) models, schemas, using Structured Query Language (SQL) for database construction and application processing, and additional data-base-related concepts. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Networking Technologies (NET TEC) 111
Intro to Computer Electronics
Introduction to concepts and principles used in modern computers and computer circuits; basic computer numbers systems; computer architecture; exposure to computer languages; digital logic. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 116, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, TR

Networking Technologies (NET TEC) 119
Intro To Networking
Covers the basics of networking from the component hardware to the topology and theoretical foundation of networks. Emphasis will be placed on learning current networking theoretical models and on supporting and maintaining a network. Various types of networks and various topologies will be covered. This course is ideal for the individual that wants to obtain a solid foundation in the principles of Networking. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 116, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, TR

Networking Technologies (NET TEC) 121
Internetworking I
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation in networking technologies. Writing assignments, as appropriate to the discipline, are part of the course. NOTE: CIS 101 or CIS 116 or COMPSFI 101 recommended prior to enrolling in this course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Networking Technologies (NET TEC) 122
Internetworking II
This course describes the architecture, components, and operations and routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality, and the essential routing protocols and virtual LAN operation in both IPv4 and IPv6 networks. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NET TEC 121, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Networking Technologies (NET TEC) 201
Client-Server Database II
In this course, the students shall learn of the how to manage a client-server database - serve as database management administrator (DBA), learn techniques to create initial database, configure storage space, add/delete/modify users, and security issues for a database. Network configuration and performance tuning will be covered in more advance courses. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Networking Technologies (NET TEC) 202
Client-Server Database III
In this course, the students shall learn of the how to manage a client-server database - serve as database management administrator (DBA), learn procedures necessary to recover a database failure, and ensure network accessibility for a client-server database. Student will learn both command-line and GUI interfaces to perform these procedures. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Networking Technologies (NET TEC) 203
Client-Server Database IV
In this course, the students will learn how to tune a client-server database and serve as database management administrator (DBA): learn tuning concepts, diagnose and prevent lock contention, discuss difference between dedicated and shared servers, prevent performance degradation as well as use tools to diagnose, troubleshoot and optimize database productivity. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA

Networking Technologies (NET TEC) 221
Internetworking III
This course describes the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality, resolve common issues in both IPv4 and IPv6 networks, and implement a WLAN in a small-to-medium network. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NET TEC 122, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, OH, TR, WR

Networking Technologies (NET TEC) 222
Internetworking IV
This course discusses the WAN technologies and network services required by converged applications in a complex network. In a complex hierarchical networks, students will learn the selection criteria of network devices and WAN technologies to meet network requirements, configure and troubleshoot network devices, resolve common issues with data link protocols, and develop the knowledge and skills needed to implement virtual private network (VPN) operations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NET TEC 221, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, OH, TR, WR

Networking Technologies (NET TEC) 240
Operating Systems/Server I
This course introduces the concepts and components of a domain server to manage and serve the resources available in a network environment. The fundamentals of a domain controller including domain services, network name resolution, resource containers, directory management, and network accessibility are discussed with hands on learning experience. The processes of serve installation, configuration, and maintenance will establish the necessary knowledge for planning and implementing advanced services. Writing assignment, as appropriate to the discipline are part of the course. Allowed repeatable course: course may be repeated up to three times and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability.
Grade of C or better in CIS 116 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, OH, TR, WR
Repeatable: Yes, up to 4 times

Networking Technologies (NET TEC) 245
Cloud Computing and Services
Cloud services are commonly adopted in current business operational infrastructure that on-demand services as shared recourses to be accessed by users through private or public network connections. This course presents the essential technologies for cloud deployments that include system requirements, service evaluations, secure network access, and automation and orchestration for cloud service management. Students will perform hands-on projects for cloud deployments using services appropriate to the profession. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CIS 116, and NET TEC 121 -OR- COMPSFI 101, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, OH, TR, WR

Networking Technologies (NET TEC) 260
Microcomputers
Introduction to microcomputer architecture, peripheral and input/output devices. Testing, troubleshooting, upgrading and repair of microcomputer systems. Writing assignments, as appropriate to the discipline, are part of the course
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, TR

Networking Technologies (NET TEC) 270
Local Area Networks
Selection and installation of network hardware and software. Management and maintenance of networks. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Courses may be repeated up to three times and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability.
Grade of C or better in (CIS 116 or NET TEC 240), or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, TR
Repeatable: Yes, up to 4 times

Networking Technologies (NET TEC) 299
Special Topics Networking Systems Technologies
Special topics in networking systems and technology will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K12 education and industry. Writing assignments, as appropriate to the discipline re part of the course.
Consent of Department Chairperson.
1-4 Lecture Hours. 1-4 Credit Hours.
Offered At: DA, OH, TR, WR
Repeatable: Yes, up to 4 times

Nursing (NURSING)

Nursing (NURSING) 101
Fundamentals of Nursing
This course is an introduction to the nursing profession and patient-centered care. Emphasis is placed on the knowledge and skills needed to provide quality care to culturally diverse communities. Concepts of focus are communication, safety and professionalism. The theoretical foundation for health assessment and nursing skills is presented and the student is given an opportunity to demonstrate these skills in a laboratory setting. An introduction to the nursing process provides a decision-making framework to assist students in developing effective decision-making skills. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of the course.
Successful completion of ENGLISH 101, BIOLOGY 121, CHEM 121 or higher-level chemistry, MATH 118 or higher General Education Math, and Admission to the City Colleges of Chicago School of Nursing Associate's Degree in Nursing Program.
6 Clinical hours. 2 Laboratory hours. 3 Lecture hours. 7 Credit Hours.
Offered At: MX

Nursing (NURSING) 102
Introduction to Medical-Surgical
This course focuses on the care of adult patients with one primary comorbidity that requires medical and / or surgical intervention. Emphasis is placed on the care of patient and their families. Concepts of patient-centered care, communication, professionalism, cultural sensitivity, safe practice, teamwork and collaboration and informatics are integrated throughout the course. More complex health assessment and nursing skills are presented and students practice and demonstrate theses skills in the laboratory and clinical settings. Clinical experiences provide students an opportunity to apply theoretical concepts and implement safe patient care to adults in acute care settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of this course.
Admission to the City Colleges of Chicago Nursing Program and successful completion of NURSING 101 with a C or better. LPN licensure for students admitted through the bridge cohort.
6 Clinical hours. 2 Laboratory hours. 3 Lecture hours. 7 Credit Hours.
Offered At: MX

Nursing (NURSING) 150
Nursing Fundamentals I
The concepts of holism, nursing practice, multicultural society and communication are studied for purposes of assisting persons to meet their basic needs. The role of the practical nurse in the use of the nursing process is studied and practiced in classroom, laboratory and long-term settings specifically in relation to protection against infection and providing for safety, mobility, comfort, hygiene, elimination and nutrition needs. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part if the course.
Admission into Practical Nursing Program 240.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Nursing (NURSING) 151
Nursing Fundamentals II
Students learn to administer medications and to use the nursing process to care for persons having surgery. The nursing process is also used to assist persons with oxygen, wound care, fluid and electrolyte, and rest and sleep needs and to assist persons who need relief from pain. Learning in classroom, lab and clinical settings foster professional growth. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Practical Nursing Program.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX
Repeatable: Yes, up to 1 times

Nursing (NURSING) 152
Nursing Perspectives
The course introduces students to the philosophy, conceptual framework, outcomes and competencies of the program. Nursing practice, nursing process and the therapeutic relationship are studied along with the ethical and legal aspects of nursing from the perspective of nursing practice in today's society. Contemporary health care delivery issues are also discussed. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into Practical Nursing Program 240.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Nursing (NURSING) 153
Nursing Thru Life Span 1
This course focuses on the care of clients throughout the life span experiencing common disorders interfering with oxygenation, nutrition, elimination, hormonal balance, and protection from infection. The student integrates previous knowledge relating to the concepts of holism, nursing practice, nursing process, multicultural society, and communication. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NURSING 151 and NURSING 152 and BIOLOGY 226.
4 Laboratory hours. 3 Lecture hours. 5 Credit Hours.
Offered At: MX

Nursing (NURSING) 158
Nursing Thru Life Span II
This course focuses on meeting the basic physiological, psychosocial, cultural developmental needs of the maternal and newborn. Course content includes antepartum, intrapartum, and postpartum care, complications of pregnancy, newborn care and complication alterations. Nutrition, pharmacology, cultural diversity, use of technology, and communication are addressed. Preventive, supportive and therapeutic care is learned in class, lab and clinical settings. Students are expected to demonstrate professional growth and to function within the provisions of the most current Illinois Nurse Practice Act. Theoretical concepts are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NURSING 151, NURSING 152, and BIOLOGY 226.
2 Laboratory hours. 1.5 Lecture hours. 2.5 Credit Hours.
Offered At: MX

Nursing (NURSING) 159
Nursing Thru Life Span III
This course focuses on meeting the basic needs of children and their families. The students will care for the family with children as a unit, considering life cycle, genetic, cultural and environmental factors. The student integrates previous learning relating to the concepts of holism, nursing practice, nursing process, multicultural society and communication. Preventive, supportive and therapeutic care is learned in class, lab and clinical settings. Students are expected to demonstrate professional growth and to function within the provisions of the most current Illinois Nurse Practice Act. Theoretical concepts are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NURSING 151, NURSING 152, NURSING 158, and BIOLOGY 226.
2 Laboratory hours. 1.5 Lecture hours. 2.5 Credit Hours.
Offered At: MX

Nursing (NURSING) 160
Nursing Thru Life Span IV
This course focuses on the care of persons throughout the life span experiencing the most common disorders interfering with sexuality, mobility, and safety (including mental health disorders). Cancer is also studied because of its interferences with all basic needs. Students integrate previous related learning and are expected to demonstrate professional growth and to function within the provisions of the Illinois Nurse Practice Act. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NURSING 158, NURSING 159, and BIOLOGY 227.
7 Laboratory hours. 3 Lecture hours. 6 Credit Hours.
Offered At: MX

Nursing (NURSING) 208
Maternal-Newborn Nursing
This course focuses on the childbearing family and the integrative, family-centered approach to the care of mothers and newborns is promoted. Emphasis is placed on normal and high-risk pregnancies, normal growth and development, family dynamics and the promotion of healthy behaviors in the patients. The community as a site for care and support services is addressed. More complex and health assessment and nursing skills continue to be presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experiences provide the student with the opportunity to apply theoretical concepts and implement safe, quality, evidence-based patient care in selected settings. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in NURSING 102, BIOLOGY 227, MCROBIO 233; for LPN bridge students NURSING 140.
3 Laboratory hours. 1.5 Lecture hours. 3 Credit Hours.
Offered At: MX

Nursing (NURSING) 209
Mental Health Nursing
This course focuses on clients, families and groups who are experiencing cognitive, mental and behavioral disorders. Emphasis is placed on family dynamics and the promotion of health behaviors in the patients. In relation to patients, families and groups who are experiencing cognitive, mental and behavioral disorders emphasis is placed on management of those facing physical and psychological stressors as well as promoting and maintaining the mental health of individuals and families. Concepts of crisis intervention, therapeutic communication, anger management and coping skills are integrated throughout the course. The community as a site for care and support services is addressed. Health assessment and nursing skills continue to be presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experiences provide students with the opportunity to apply theoretical concepts and implement safe, quality, evidence-based patient care in selected settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Written assignments, as appropriate to the discipline are a part of this course.
Grade of C or better in NURSING 102, BIOLOGY 227, MCROBIO 233; for LPN bridge students NURSING 140.
3 Laboratory hours. 1.5 Lecture hours. 3 Credit Hours.
Offered At: MX

Nursing (NURSING) 210
Intermediate Medical-Surgical Nursing
This course focuses on the care of adult patients with multiple comorbidities who require medical and/or surgical interventions. Emphasis is placed on helping patients, their families, and groups cope with alterations in body functions. Concepts focused upon in previous courses continue to be emphasized along with teamwork and collaboration, informatics, evidence-based practice and quality improvement. More complex health assessment and nursing skills are presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experiences provide the student with an opportunity to apply theoretical concepts and implement safe care to one or two clients and selected groups in a variety of settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of the course.
Grade of C or better in NURSING 102, BIOLOGY 227, MCROBIO 233; for LPN Bridge Students NURSING 140.
6 Laboratory hours. 3 Lecture hours. 6 Credit Hours.
Offered At: MX

Nursing (NURSING) 213
Advanced Medical Surgical
This course focuses on advanced concepts of nursing care as they relate to adult patients with acute, complex, and multiple comorbidities. Previously learned concepts continue to be emphasized along with evidence-based practice, quality improvement, and leadership. Implementation of priority setting, clinical judgment and tenets of legal and ethical practice are integrated throughout the course. More complex health assessment and nursing skills continue to be presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experiences provide the student with an opportunity to apply theoretical concept and implement safe, quality, evidenced-based care to patients, families and groups in a variety of settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Written assignments as appropriate to the discipline are a part of this course.
Grade of C or better in NURSING 208, NURSING 209 and NURSING 210.
6 Laboratory hours. 3 Lecture hours. 6 Credit Hours.
Offered At: MX

Nursing (NURSING) 214
Gerontologic Nursing
This course focuses on older adult patients, families, and groups who are experiencing age related changes. Emphasis is placed on normal growth and development, family dynamics, and the promotion of healthy behaviors in patients. For the care of older adults, the focus is on addressing their unique physiological and psychosocial needs in addition to the complex, multiple comorbidities. Emphasis is placed on collaborating with the interprofessional healthcare team to retain functional ability within home and residential settings. More complex health assessment and nursing skills continue to be presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experience provides the student with the opportunity to apply theoretical concepts and implement safe, quality, evidence based patient care in clinical settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of this course.
Grade of C or better in NURSING 208, NURSING 209 and NURSING 210.
3 Laboratory hours. 1.5 Lecture hours. 3 Credit Hours.
Offered At: MX

Nursing (NURSING) 215
Pediatric Nursing
This course focuses on the clinical area of the childrearing family. In relation to the childrearing family an integrative, family-centered approach is promoted in the care of children. Emphasis is placed on normal growth and development, family dynamics, common pediatric disorders and the promotion of healthy behaviors in patients. Emphasis is placed on collaborating with the inter-professional healthcare team to retain functional ability within home and residential settings. More complex health assessment and nursing skills continue to be presented and students practice and demonstrate these skills in the laboratory and clinical settings. Clinical experience provides the student with opportunity to apply theoretical concepts and implement safe, quality, evidence-based patient care in clinical settings. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340. Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of this course.
Grade of C or better in NURSING 208 and NURSING 209
3 Laboratory hours. 1.5 Lecture hours. 3 Credit Hours.
Offered At: MX

Nursing (NURSING) 216
Nursing Leadership
This course facilitates the transition of the student into the role of a professional nurse. Previously learned concepts continue to be emphasized along with evidence-based practice, quality improvement, and leadership. Emphasis is placed on contemporary issues, appreciation of human diversity, cultural competence and management concepts. Principles of delegation and conflict management will be emphasized. Strategies to guide personal and professional development will guide short term and long term career goals. Legal and ethical issues are discussed with a focus on personal accountability and responsibilities. Standards of practice and the significance of functioning according to the state regulations and statutes are analyzed. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed from the State of Illinois as stated in the Nurse Practice Act, IL 1300.340 Approval of Programs sub section F Curriculum and instruction. Writing assignments as appropriate to the discipline are a part of this course.
Grade of C or better in NURSING 208, NURSING 209 and NURSING 210.
3 Lecture hours. 3 Credit Hours.
Offered At: MX
HD Course

Occupational Therapy Assistant (OTA)

Occupational Therapy Assistant (OTA) 106
Foundations of Human Occupation
This course explores the meaning of human occupation and its relationships to health, illness and disability. The historical roots of occupational therapy are explored and linked to the roles of contemporary occupational therapy practitioners. Students will experience a variety of learning strategies and activities as a means to gaining understanding of occupation, the occupational therapy process and the skills needed by a healthcare professional. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 107
Occupations Of Childhood
The first in a sequence of courses addressing the emergence of occupational behaviors, skills and life roles in humans throughout the life span. This course presents occupational and developmental frameworks for understanding the occupational nature of infants and children through 12 years of age, their families and caregivers. Means of applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions and circumstances affecting this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 108
Practice Skills of OT Assistant I
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process with infants, children through twelve years of age and their families in a variety of settings. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 109
Occupations of Adolescence Early Adulthood
The second in a sequence of courses addressing the emergence of occupational behaviors, skills and life roles in humans throughout the life span. This course presents theoretical frameworks and models for understanding the occupational nature of adolescents and young adults at home, at school and in the community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions and circumstances affecting this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 110
Practice Skills of OT Assistant II
Structured experiential learning will provide opportunities for the student to solidify knowledge develop and practice professional skills and behaviors utilized in the occupational therapy process in a variety of settings with adolescents and young adults. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 209
Occupation of Middle Adulthood
The third in a sequence of courses addressing the emergence of occupational behaviors, skills and life roles in humans throughout the life span. This course presents theoretical frameworks and models for understanding the occupational nature of the middle adulthood years in home settings, work environments, and in multiple levels of community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studies within the contexts of a variety of disorders, conditions and circumstances affecting this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 210
Practice Skills of OT Assistant III
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process in a variety of settings with middle-aged adults. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 211
Special Topics for OT I
The first of a two course sequence designed to develop knowledge and skills needed for the provision of occupational therapy services to special populations. Students will explore the role of the occupational therapy assistant in a variety of service delivery contexts. A variety of strategies used to engage in collaborative occupational therapy supervisory relationships in settings without occupational therapists will be addressed. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 2 Laboratory Hours. 3 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 212
Occupations of Later Adulthood
The fourth in a sequence of courses addressing the emergence of occupational behaviors, skills and life roles in humans throughout the life span. This course presents theoretical frameworks and models for understanding the occupational nature of later adulthood in multiple living settings, work-related environments, and in community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions and circumstances occurring during this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 4 Lecture hours. 5 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 213
Practice Skills of OT Assistant IV
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process in a variety of settings with elders. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 214
Special Topics for OTA II
The second of a two course sequence designed to develop knowledge and skills needed for the provision of occupational therapy services to special populations. Students will explore the role of the occupational therapy assistant in a variety of service delivery contexts. A variety of strategies used to engage in collaborative occupational therapy supervisory relationships in settings without occupational therapists will be addressed. A special populations independent study incorporating fundamentals of entrepreneurship and marketing is included. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 2 Laboratory Hours. 3 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 215
Fieldwork Level II
Students will apply and synthesize the knowledge base skills and attitudes of an occupational therapy assistant in a supervised health care fieldwork experience. Fieldwork placements in a community settings or institutions will afford students opportunities to engage in occupation-based practice with individuals across the lifespan and who may experience a variety of disorders and conditions. The course includes a campus-based student seminar to support the process of professional skills acquisition. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Lecture Hours. 20 Laboratory Hours. 6 Credit Hours.
Offered At: WR

Occupational Therapy Assistant (OTA) 216
Fieldwork Level B
Students will apply and synthesize the knowledge base, skills and attitudes of an occupational therapy assistant in a supervised health care fieldwork experience. Fieldwork placements in community settings or institutions will afford students opportunities to engage in occupation-based practice with individuals across the lifespan and who may experience a variety of disorders and conditions. The course includes a campus-based student seminar to support the process of professional skills acquisition. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
2 Lecture Hours. 20 Laboratory Hours. 6 Credit Hours.
Offered At: WR

Oceanography (OCEAN)

Oceanography (OCEAN) 101
Intro To Oceanography
Third dimension of the ocean, its depth, and as new frontier awaiting exploration; interdisciplinary study of ocean and interphase between air and water and how it affects the physical environment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH, TR
IAI: P1 905 GE: Physical Sciences

Oceanography (OCEAN) 201
Marine Sciences
This course includes a wide-ranging study of Earth's marine environment, emphasizing both the biotic and abiotic aspects of the ocean and the synchronous ways in which they interact. A strong emphasis is placed on understanding the challenges posed by abiotic conditions in the marine realm and the adaptations observed in marine organisms that allow them to survive despite these challenges. We will focus on the analysis of abiotic data sets (temperature, currents, sea topography, tidal cycles, etc.) and biotic data (fish populations, distribution and abundance of marine communities). Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: TR
IAI: P1 905 GE: Physical Sciences

Paralegal (PARALEG)

Paralegal (PARALEG) 147
Intro to Paralegal Studies
This course is the first of the required courses in the Paralegal AAS program/plan 304. It provides an overview of the American legal system. It explores essential knowledge in the paralegal field, including the basic skills, concepts, and reasoning processes for success in a paralegal career. This course explores basic paralegal roles and responsibilities and specific limitations as they relate to the legal system and the law office environment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 148
Civil Litigation
This course is one of the requirements of the Paralegal AAS program/ plan 304. It introduces the student to procedural concepts of the civil litigation process in state and federal courts with an emphasis on Illinois and federal civil codes. It examines the role of the paralegal from the initial phases of the pre-trial investigation and discovery through the appeals process while emphasizing legal theory and practical skills. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 149
Family Law
This course is one of the requirements of the Paralegal AAS program/ plan 304. It is an overview of the basic principles of family law and domestic relations, with an emphasis on Illinois law. It examines the areas of marital contracts, divorce, annulment, issues affecting children, and other legal matters relating to domestic relations. It also covers client interviews, the drafting of necessary pleadings and supporting documents, and the performance of basic research relating to family law and domestic relations as well as the role of the paralegal in family law. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 150
Legal Research and Writing I
This course provides an overview of the fundamentals of legal research and writing. It covers the use of primary and secondary source materials to research legal questions. It examines different types of legal documents and provides training in legal analysis. The course also includes principles and techniques of legal writing and their application to legal correspondence and documents as well as the role of the paralegal in legal research and writing. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of PARALEG 147, PARALEG 148 and ENGLISH 101 with a grade of "C" or better, or consent of the Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 219
Real Estate Law for the Paralegal
This course is one of the requirements of the Paralegal AAS program. It introduces the fundamentals of real estate law, with the emphasis on Illinois law, and provides a basic understanding of the elements of the real estate industry. The course covers real property law, categories of ownership, legal descriptions, contracts, financial aspects, and special issues in real estate law. It examines the real estate transaction from the beginning of the process to the closing. It emphasizes the drafting of legal descriptions of property, preparing closing documentation and performing a title search. It also examines the role of the paralegal in a law office, financial institution, or title company. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 220
Criminal Law for the Paralegal
This course explores the Illinois and federal court systems as well as defines the categories of crime and the types of legal defenses. It introduces the concepts involved in criminal proceedings and explores the stages of criminal litigation from the arrest through post-trial procedures. It enables the student to understand all procedural aspects of criminal cases and the role of the paralegal in aiding an attorney in trial preparation, the trial itself, and post-trial procedures and appeals. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 222
Contract Law for the Paralegal
This course provides the student with an in-depth analysis of the law pertaining to contract formation, resolution of contract disputes and the impact of the Uniform Commercial Code on traditional contract theory. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 223
Tort Law
This course is one of the requirements of the Paralegal AAS program/ plan 304. It examines the fundamental elements of tort law and the principles of tort litigation. It introduces the different categories of torts and focuses on the role of the paralegal in tort litigation from the point of view of both the plaintiff and the defendant. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 224
Wills, Trusts and Probate
This course covers both the theoretical and practical knowledge needed in the estate planning and probate processes. It covers wills, trusts, and estate administration. The course emphasizes the role of the paralegal in the drafting of estate planning documents and carrying out probate procedures. Emphasis is placed on applicable Illinois law and Federal tax laws. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 225
Legal Research and Writing
This course is one of the requirements of the Paralegal AAS program. It provides an overview of the fundamentals of legal research and writing. This course covers the use of primary and secondary source materials to research legal questions. It examines different types of legal documents and provides training in legal analysis. The course also includes principles and techniques of legal writing and their application to legal correspondence and documents as well as the role of the paralegal in legal research and writing. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 102, PARALEG 147, 148, 149, 223 and PARALEG 238 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 226
Internship for the Paralegal
This course is designed to enable students to combine classroom training with practical paralegal work experience through supervised on-the-job training in a public or private legal setting. Periodic discussions of experiences, concerns, and topical questions enhance the student learning. Students are required to keep records of their internship hours and tasks. A minimum number of hours of on-site time are required for this course. Internship placement must be approved by the Program Coordinator. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
3 Lecture Hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 227
Elder Law
This course is an overview of legal issues that are increasingly relevant as the older population increases. It covers a variety of legal documents and the many legal situations which affect the elderly. It also covers topics such as asset management, estate planning, health care, personal planning and protection, resources of both public and private agencies and organizations, and the court systems. It examines the role of the paralegal in interacting with elderly clients as well as in using the various resources available in elder law. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 228
Environmental Law for the Paralegal
This course examines the fundamental concepts of environmental law. It emphasizes both state and federal laws and regulations enacted to preserve and protect the environment. It covers the specific areas of air quality control, water quality control, toxic substance control, waste management, and hazardous releases. It also covers energy policy, natural resources, international environmental law, and current environmental issues. It focuses on the role of the paralegal in environmental law. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 229
Immigration Law
This course provides an overview of the federal immigration system and the concepts and procedures of immigration law for the paralegal. It examines immigration law and regulations as well as practical applications in immigration law including the naturalization process, visa procedures, and the right and obligations of aliens in the United States. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 238
Legal Ethics for the Paralegal
This course provides the student with an overview of ethical considerations arising in the paralegal profession. This course discusses the regulation and discipline of attorneys and paralegals, issues related to confidentiality and conflicts of interest, unauthorized practice of law and other ethical issues that pertain particularly to paralegals. Students will discuss general ethical considerations and will work directly with the Illinois Rules of Professional Conduct. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 239
Business Organizations & Agency Law
This course is an elective in the Paralegal AAS program/plan 304. It provides the student with an overview of the formation and operation of business enterprises, exposes the student to types of business organizations and to the law surrounding principal/agent relationships. Student will learn about sole proprietorships, general and limited partnerships, limited liability companies and corporations. The role of a corporate paralegal is covered as it relates to the benefits and disadvantages of each type of entity as well as the formation, dissolution and recordkeeping for each of these entities. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Paralegal (PARALEG) 240
Computers in the Law Office
This course is an elective in the Paralegal AAS program/plan 304 and can be taken in lieu of the internship requirement. A general introduction to the use of computer software programs in the modern law office. Office organization, legal terminology, fees and billing procedures, e-filing, scheduling and calendaring, preparation and maintenance of case files, preparation of law office forms, and an introduction and survey of a variety of legal specific software and legal web resources are involved in this course. Students will develop a greater appreciation for computers by learning how computers can help paralegals complete tasks and assignments. This course includes hands on computer exercise using professional software programs and web resources used in the law office by paralegals. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of ENGLISH 101, PARALEG 147 and PARALEG 148 with a grade of C or better or consent of program director.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Pharmacy Technology (PHAR TC)

Pharmacy Technology (PHAR TC) 100
IV Preparation
This course provi8des basic understanding and training of intravenous preparations of sterile products, clothing, equipment, calculations and documentation. Writing assignments, as appropriate to the discipline, are part of the course.
Current Licensed and Certified Pharmacy Technician
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 105
Prescription Compounding
This course provides a basic understanding and training of compound preparations of products, equipment, calculations and documentation. Writing and reading assignments, as appropriate to the discipline, are part of the course.
Current Licensed and Certified Pharmacy Technician
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 131
Pharmacology I
Fundamental biological and biochemical principles as applied to allied health personnel. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 132
Pharmacology II
Principles and characteristics of drugs, including physical and chemical properties, dosage calculations, effects and reactions, toxicity, emergency procedures and methods of administration. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 133
Pharmacology Lab
Fundamental biological and biochemical principles as applied to allied health personnel. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Laboratory hours. 1 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 134
Pharmacy Practice
This course introduces the student to the field of pharmacy technology. Included is an overview of the Pharmacy Technician certificate program, definition of the pharmacy technician's role, and a review of opportunities open to the pharmacy technician. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 135
Pharmacy Calculations
Designed to provide mathematical tools for students enrolled in the pharmacy technology program. Emphasis is on practical aspects of mathematics and less upon the theoretical. Topics include, but are not limited to: fundamentals of measurement and calculation; interpretation of prescription or medication order; the metric system; calculation of doses; reducing and enlarging formulas; and percentage and ratio calculation. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 136
Prescription Processing
Provides basic understanding of the person / pharmacy computer prescription processing software and the development of keyboarding skills. Learn to produce all requisite documentation for the pharmacy. Writing assignments, as appropriate to the discipline, and part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Laboratory hours. 1 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 137
Pharmacy Communication
Provides basic communication skills and pharmacy practice including verbal, nonverbal communication. Communication barriers, listening/empathic responding, assertiveness, interviewing assessment, patient outcomes, communications with special patients/children about medications are explored in this profession. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 138
Intro To Pharmacy Law
Overview of legal aspects of the pharmacy practice, including a review of the Federal Controlled Substances Act and Illinois statues, rules and regulations. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Pharmacy Technology AC or Outpatient Pharmacy Technology BC.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 141
Sterile Processing
Fundamentals and specifics of drug distribution in hospital and retail pharmacies, including bulk compounding, packaging, quality control, inventory control, drug storage and a variety of drug delivery systems. Mathematical calculations for basic pharmacy operations. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Pharmacy Technology program/plan 254.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 142
Non-Sterile Processing
Fundamentals and specifics of drug distribution in hospital and retail pharmacies, including bulk compounding, packaging, quality control, inventory control, drug storage and a variety of drug delivery systems. Mathematical calculations for basic pharmacy operations. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Pharmacy Technology program/plan 254.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 143
Advanced Practice
This course continues to expose students to advanced topics in the field of pharmacy technology. Included is an overview of the Pharmacy Technician certificate program, definition of the pharmacy technician's role, and a review of opportunities open to the pharmacy technician. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Pharmacy Technology program/plan 254.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 204
Retail/Outpatient Clinical
This course is designed to provide employment skills as a concurrent and integral part of a student's educational program in pharmacy technology. Supervised work experience in ambulatory care pharmacy practice is provided by applying the knowledge and training learned in related pharmacy technology courses. Training also involves progression from role of observer to assistant, then to relative independence under the direct supervision of a registered pharmacist and clinical coordinator. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or better or concurrent enrollment in PHAR TC 131, 134, 135, 136, 137 and 138
10 Clinical hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Pharmacy Technology (PHAR TC) 205
Inpatient Clinical
This course is designed to provide employment skills as a concurrent and integral part of a student's educational program in pharmacy technology. Supervised work experience in ambulatory care pharmacy practice is provided by applying the knowledge and training learned in related pharmacy technology courses. Training also involves progression from role of observer to assistant, then to relative independence under the direct supervision of a registered pharmacist and clinical coordinator. Writing assignments, as appropriate to the discipline, are part of the course.
Grade C or higher or concurrent enrollment in PHAR TC 141, PHAR TC 142, and PHAR TC 143.
12 Clinical hours. 4 Credit Hours.
Offered At: MX

Phi Theta Kappa (PTKAPPA)

Phi Theta Kappa (PTKAPPA) 101
Phi Theta Kappa Leadership Development
Development of leadership abilities through the study of classic examples in The Great Books and through experiential exercises. Includes topics on leadership and group dynamics, moral and ethical responsibilities of leadership, delegation of authority. Conflict resolution, essential leadership skills, and productive leadership behavior. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, WR

Philosophy (PHIL)

Philosophy (PHIL) 105
Logic
This course introduces students to methods of reasoning, inference and argument. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H4 906 GE: Humanities

Philosophy (PHIL) 106
Introduction To Philosophy
Introduction to philosophical methods of inquiry through analysis and evaluation of influential philosophical ideas. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H4 900 GE: Humanities

Philosophy (PHIL) 107
Ethics
Introduction to representative ethical systems; approaches to problems of values and conduct. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H4 904 GE: Humanities

Philosophy (PHIL) 108
Philosophy Of Religion
Introduction to major religious traditions, analyzing various conceptions of God, values, reason, and faith. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: H4 905 GE: Humanities

Philosophy (PHIL) 110
Social/Political Philosophy
Discussion of readings in philosophy covering issues such as justice, authority, obligation, rights, power, freedom and well-being. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, WR
IAI: H4 907,PLS 913 GE: Humanities

Philosophy (PHIL) 151
Bioethics
This course will prepare students to develop and apply explicit, coherent reasoning and judgement to important issues in the ethics of healthcare and to address the philosophical issues of human personhood, life, death, and suffering. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Philosophy (PHIL) 201
Greek Philo To Renaissance
A study of major philosophers and schools of thought, including social, political and religious contexts within which each developed, from the pre-Socratic thinkers to the Renaissance. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, WR
IAI: H4 901 GE: Humanities

Philosophy (PHIL) 202
Enlightenment To Present
This course covers major philosophers and schools of thought from the 17th century to the present. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, WR
IAI: H4 902 GE: Humanities

Philosophy (PHIL) 215
Problems In Philosophy
Philosophical problems from such fields as ethics, metaphysics, aesthetics, and philosophy of science. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, TR
IAI: H4 900 GE: Humanities

Philosophy (PHIL) 216
Critical Thinking
Introduction to the development of cognitive skills to evaluate claims and arguments in order to make sound judgments about beliefs and actions. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA
IAI: H4 906 GE: Humanities

Philosophy (PHIL) 225
Philosophy Of Art
Basic artistic concepts, including artistic creation, the aesthetic experiences; focus on values and meaning in the arts. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Humanities

Phlebotomy (PHLEB)

Phlebotomy (PHLEB) 108
Phlebotomy Seminar I
Introduction to Phlebotomy. Medical terminology, anatomy and physiology, communications, interpersonal relations, professional behavior, safety requirements in the healthcare institution will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 96 or higher. Admission into the Phlebotomy Program.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Phlebotomy (PHLEB) 109
Phlebotomy Practicum and Seminar I
This course provides principles of phlebotomy techniques and examines the phlebotomist's role as a member of the healthcare delivery team. The students will perform simulated phlebotomy procedures on campus and actual procedures in a clinical setting. Medical terminology, anatomy and physiology, communications, interpersonal relations, professional behavior, safety requirements in the healthcare institution, venipuncture and capillary puncture techniques will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 96 or higher. Admission into the Phlebotomy Program.
9 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: MX

Phlebotomy (PHLEB) 110
Phlebotomy Practicum
Introduction to Phlebotomy. The students will perform simulated phlebotomy procedures on campus to prepare students in a clinical setting. Students will learn the principles and procedures of performing venipuncture, syringe and butterfly techniques will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for English 96 or higher. Admission into the Phlebotomy Program.
9 Laboratory hours. 3 Credit Hours.
Offered At: MX

Phlebotomy (PHLEB) 208
Phlebotomy Seminar II
Topics such as stress management quality assurance and quality control, capillary puncture, continuation of medical terminology legal aspects of phlebotomy, data entry, and cardio-pulmonary resuscitation (CPR), will be discussed. Students will learn about specimen processing. As well as learn about non-blood phlebotomy skills, and point of care. The student will also learn about the basic 12-lead electrocardiogram (ECG). Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Phlebotomy program.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Phlebotomy (PHLEB) 209
Phlebotomy Practicum and Seminar II
This course provides the student with hands-on experience in both venous and capillary blood drawing in a clinical setting (i.e. hospital and ambulatory health care environment) and in the phlebotomy laboratory during clinical practicum. A minimum of 100 successful unsupervised venipuncture using standard equipment is required for the completion of this course. The students will perform simulated venipunctures and capillary punctures on campus to prepare students for clinical settings. Topics such as stress management, quality assurance and quality control, capillary puncture, continuation of medical terminology legal aspects of phlebotomy, data entry, and cardio-pulmonary resuscitation (CPR) will be discussed. The student will also be trained on how to perform a basic 12-lead electrocardiogram (ECG). Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Phlebotomy program.
13 Clinical hours. 3 Laboratory hours. 3 Lecture hours. 8 Credit Hours.
Offered At: MX

Phlebotomy (PHLEB) 210
Phlebotomy Clinical
This course provides the student with hands-on experience in both venous and capillary blood drawing in a clinical setting (i.e. hospital and ambulatory health care environment) and in the phlebotomy laboratory during clinical practicum. A minimum of 100 successful unsupervised venipuncture using standard equipment is required for the completion of this course. The students will perform simulated capillary punctures on campus to prepare students in a clinical setting. The student will also be trained on how to perform a basic 12-lead electrocardiogram (ECG). Writing Assignments, as appropriate to the discipline, will be part of the course.
Admission into the Phlebotomy program.
16 Clinical hours. 3 Laboratory hours. 5 Credit Hours.
Offered At: MX

Physical Education (PHYS ED)

Physical Education (PHYS ED) 110
Fitness
Concepts, techniques, methods of personal fitness, stressing effects of exercise, relaxation and weight control; fitness programs directed to individual improvement. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 112
Gymnastics And Tumbling
General calisthenics and fundamentals of combinations of simple tumbling, gymnastics, stunts and/or modern gymnastics and practice; competitive aspects and scoring. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 114
Jogging
Running techniques to improve organic fitness through individualized programs. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 116
Self Def & Combatives
Elements of self-defense; understanding of combatives; conditioning, offensive and defensive tactics, rules and strategy for competition. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 118
Weight Training
Development of physical fitness through weight training devices; lifting techniques, circuit training, competitive lifting procedures. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 120
Team Sports
Combination of one or more seasonal sports such as basketball, floor hockey, soccer, softball, touch football and volleyball; theory and practice of fundamental skills, rules of the game and strategy; competition and tournaments within classes. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 122
Individual Sports
One or more lifetime sports such as archery, badminton, bowling, fencing, golf, skating, skiing, tennis, and track and field; theory and practice of individual skills, rules of the game, techniques of game strategy; competitive tournaments within class. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 130
Fundamentals of Swimming
For beginning and intermediate swimmers; breathing techniques, basic strokes, diving and water safety skills. American Red Cross card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 132
Advanced Swim & Water Games
Instruction in all strokes to improve efficiency and speed; diving from pool side, springboard, rescue skills and surface dives; preparation for lifesaving course; individual and team competition in such games as water basketball and water polo. American Red Cross Card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 134
Aquatic Skills & Synchronized Swimming
Development of skills for participation in synchronized swimming activities; stunts and combinations of strokes for simple rhythmic routine composition; advanced diving and underwater skills. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 140
Dance Survey
Introduction to dance techniques such as square, folk, tap, contemporary, social and ballet. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 142
Square & Folk Dance
Fundamentals and practice in basic steps and figures of American and foreign folk dance. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 144
Ethnic Dance
Rhythms, dance and cultures of Africa and their interrelationships with Latin American dance and calypso movements. Writing assignments, as appropriate to the discipline, are part of the course. .5 or 1 lecture and 1 or 2 lab hours per week.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 146
Contemporary Dance I
Contemporary dance including warm-ups, technique, dance patterns, analysis of rhythm and creative experience in improvisations and simple movement studies. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 148
Contemporary Dance II
Advanced technique, training and principles of movement perception, introduction to fundamentals of dance composition with emphasis on design, form and production. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX, OH, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 150
Ballet
Form, style and performance of basic ballet movements and practice of beginning dances; fundamentals of music related to dance. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, WR
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 152
Tap
Techniques of tap dance; practice and experience in creating simple routines. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 160
Adaptive Physical Education
For students restricted by health limitations; activity programs to meet specific needs of the individual.
0.5-1 Lecture Hours. 1-2 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK, MX
Repeatable: Yes, up to 2 times

Physical Education (PHYS ED) 200
Intro to Physical Education
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 201
Dance Fundamentals
Rhythm as related to movement and dance; skill practice with emphasis on correct performance, interpretation of dance patterns, opportunities for student teaching. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 202
Ballet
Principles of classical ballet, terminology and methods of teaching elementary composition. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 1 Lecture hours. 1 Credit Hours.
Offered At: WR

Physical Education (PHYS ED) 203
Contemporary & Modern Jazz Dance
Analysis through movement, exploration of dance forms, their similarities and differences; skill practice and teaching experience in each area. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK, OH, WR

Physical Education (PHYS ED) 204
Wrestling
Analysis, instruction and theories of coaching, officiating and match strategy. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK, WR

Physical Education (PHYS ED) 206
Football
Analysis, instruction, demonstration of fundamental skills; theory of coaching and officiating, styles of play and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 207
Introduction to Personal Training
This course is designed to prepare students to sit for the personal trainer's exam. The course bridges the gap between exercise science related course work and the practical application skills of personal training. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: WR

Physical Education (PHYS ED) 212
Volleyball
Instruction, demonstration and practice of skills; coaching and officiating, styles of play and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 216
Track
Skills and teaching techniques of track and field events; rules of competition, strategy and team organization of the sport. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 218
Basketball
Fundamentals of basketball and techniques of team organization; skills of each position, offensive and defensive skills, team play, strategy and officiating. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 219
Sports Officiating
Rules and mechanics of officiating of various team and individual sports; responsibilities and qualifications of an official. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 221
Play & Rhythmic Activities of Early Childhood
Methods and materials for teaching simple rhythmic games, singing games and other movement experiences for pre-school child; analysis of play situations appropriate to their needs and abilities. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 224
Tumbling And Gymnastics
Instruction and practice in teaching fundamental exercises; correct execution, development of skills, methods of giving gymnastic commands, tumbling and pyramid building; instruction and theories of coaching, officiating and competitive needs. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 226
Swim & Senior Life Saving
Skills of fundamental strokes to improve efficiency and speed; diving from pool side and springboard, rescue skills and surface dives; introduction to coaching of competitive swimming; safety, accident prevention; defense methods, rescue techniques. American Red Cross card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 229
Water Safety Instructor
Swimming skills and techniques in all strokes, skills and techniques of life saving, water safety; practice in class management and teaching progressions; requirements meet those of American Red Cross Water Safety Instructors training program; American Red Cross Water Safety Instructors certificate issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 230
Baseball And Softball
Basic skills, coaching and officiating styles of play, teaching techniques and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 234
Soccer
History, basic skills, playing tactics, officiating and teaching methods. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 236
Fitness Programs
Individual physical development; methods and teaching techniques of various fitness programs; introduction to physiology of exercise. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK, MX

Physical Education (PHYS ED) 237
Body Mechanics
Principles of fitness, including exercise, nutrition, diet, self-analysis, relaxation, posture, movement and sport activity analysis. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK, MX

Physical Education (PHYS ED) 244
Tennis
Basic skills, strategy and playing techniques and teaching methods of tennis; rules, history and court etiquette. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Education (PHYS ED) 246
Golf
Basic practices and teaching of grip, stance and swing; rules, strategy, course layout, etiquette. Writing assignments, as appropriate to the discipline, are part of the course.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: KK

Physical Science (PHY SCI)

Physical Science (PHY SCI) 101
General Course Physical Science
Introduction to the scientific method, astronomy, geology, meteorology. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: P1 905,P9 900 GE: Physical Sciences

Physical Science (PHY SCI) 102
General Course Physical Science
Introduction to physics and chemistry; the relationship of matter and energy to physical and chemical changes. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR
IAI: P9 900 GE: Physical Sciences

Physical Science (PHY SCI) 107
Current Public Issues in Physical Science
Interdisciplinary approach to physical sciences; current public issues serve as framework for course that covers earth sciences (conservation, pollution, space exploration) as well as other branches of science and social and humanistic aspects; integrates significant aspects of physical science with students other studies as well as daily living. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR
IAI: P9 900 GE: Physical Sciences

Physical Science (PHY SCI) 111
General Course I Physical Science
Introduction to the scientific method, astronomy, geology, oceanography, and meteorology. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 99 or Higher or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: P1 905L,P9 900L GE: Physical Sciences

Physical Science (PHY SCI) 112
General Course II Physical Science
Introduction to physics and chemistry; the relationship of matter and energy to physical and chemical changes. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 99 or Higher or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, OH, TR, WR
IAI: P9 900L GE: Physical Sciences

Physical Science (PHY SCI) 118
Introduction to Meteorology
An introductory course examining the physical properties of the atmosphere, radiation heating and cooling, precipitation, clouds, weather disturbances, climate controls, map reading, and application of the scientific method in analyses of the weather elements. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 99 or Higher or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: HW
IAI: P1 905L GE: Physical Sciences

Physical Science (PHY SCI) 295
Independent Research in Physical Science
This course emphasizes independent, student-driven research under the close supervision of a faculty member. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Eligibility for course repetition for additional credit hours is determined by the instructor. No more than an accumulated 12 credit hours will be counted towards graduation.
Eligibility for ENGLISH 101 and MATH 140 or higher or Consent of Department Chairperson.
1 Lecture Hours. 1-6 Laboratory Hours. 1.5-4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
Repeatable: Yes, up to 4 times

Physical Therapist Assistant (PTA)

Physical Therapist Assistant (PTA) 110
Introduction to Physical Therapy
This course introduces the field of physical therapy (PT) and foundational knowledge of topics threaded throughout the technical portion of the physical therapist assistant curriculum. These topics include, but are not limited to, the history of the profession, PT practice settings, roles and responsibilities of the physical therapist assistant (PTA), the PT/PTA relationship and other interprofessional relationships, ethical and legal considerations in PT, communication skills, cultural competence and diversity in health care related to age, race, ethnicity, socioeconomic status and disability, pharmacology medical terminology, documentation, basic patient safety, patient privacy/comfort, architectural barriers, recognizing and responding to emergency situations, and research and evidence based practice. Upon completion, students should be able to expand upon this foundational knowledge in subsequent courses as it pertains specifically to patient care and conditions/body systems studied. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX
HD Course

Physical Therapist Assistant (PTA) 140
Health Promotion & Wellness I
This course introduces the physical therapist assistant student to health promotion and wellness beginning with a reflection of self as an individual and student, as member of the interprofessional healthcare team, and subsequently the community at large. Students will identify strategies for successful navigation of the physical therapist assistant program including identifying personal strengths and weaknesses, self-reflection on health beliefs, and skills to maintain a healthy school-life balance. The second portion of the course will shift beyond self to health promotion and wellness as a member of the community and interprofessional healthcare team. Students will identify, design, and implement an interprofessional initiative to promote the health and wellness of the members of our college community. Upon completion, students should be able to implement skills to maintain a school-life balance to maintain academic success and complete a needs assessment of their environment and implement feasible initiatives aimed at promoting the health and wellness of that community. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of PTA 110, 150 and 160.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 150
Therapeutic Procedures I
This course introduces assessment and measurement techniques and mobility training commonly performed by the physical therapist assistant. In this course, students will learn the applicable foundational knowledge and clinical skills to complete anthropometric, joint ROM, muscle length, muscle strength, sensory, and balance/coordination tests and measurements. Additionally, this course will build upon foundational coursework emphasizing the underlying clinical decision making skills and technical skills for functional patient mobility including assistive device fitting, bed mobility, transfer training, gait training, stair navigation, and wheelchair mobility. Upon completion, students should be able to safely, correctly, and effectively apply and document these techniques and procedures within the plan of care and scope of practice of the physical therapist assistant under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 160
Orthopedic Practice & Exercise
This course introduces commonly encountered orthopedic conditions in physical therapy and effective interventions for physical therapy management. As each joint of the human body is explored, emphasis is placed on foundational principles of tissue healing, pain management, and recovery of meaningful function for the patient. Using evidence based practice as a guide, clinical decision making skills stress progression and modification of interventions. Upon completion, students should be able to safely, correctly, and effectively apply and document tests, measurements, and interventions in clinical practice based on knowledge of orthopedic conditions as experienced by patients within in the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
6 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 170
Therapeutic Procedures II
This course covers the theory and application of therapeutic modalities used in physical therapy practice. Modalities covered in this course include: superficial thermal agents (therapeutic heat and cold), ultrasound and phonophoresis, diathermy, lasers, ultraviolet, electrotherapeutics for pain management, muscle contraction, drug delivery, and tissue repair, EMG/biofeedback, traction, massage, compression therapies, aquatics and hydrotherapy. Emphasis is placed on foundational principles and mechanics from physics, physiological effects, indications, contraindications, precautions, skilled application of the modality, clinical decision making, evidence-based practice, and documentation procedures Upon completion, students should be able to safely, correctly, and effectively apply these techniques and procedures within the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 171
Cardiopulmonary & Vascular Practice
This course introduces commonly encountered cardiopulmonary and vascular conditions in physical therapy. In this course, students will learn the applicable knowledge and clinical skills to complete tests and measurements related to a patient's cardiopulmonary and vascular status. Additionally, this course will further previous and foundational coursework emphasizing clinical decision making skills, proficiency with cardiopulmonary and vascular risk factor assessments, effective resistive and aerobic exercise progressions and modifications, response to emergent conditions, and wellness and prevention initiatives in the cardiopulmonary and vascular patient populations. Lymphatic and integumentary conditions, tests, measurements, and interventions are introduced as related to the cardiopulmonary and vascular systems. Upon completion, students should be able to safely, correctly, and effectively apply and document tests, measurements, and interventions in clinical practice based on knowledge of cardiopulmonary, vascular, and related lymphatic and integumentary conditions as experienced by patients within in the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 190
Therapeutic Procedures III
This course introduces treatment and measurement techniques and discusses treatment programs for neuromusculoskeletal dysfunction and injury. Topics include soft tissue and joint dysfunction; assessment of girth, volume, length, sensation, pain, and muscle strength; and selected exercise programs. Upon completion, students should be able to measure strength and joint motion and identify methods to assess sensation, pain, volume, girth, length, and gait abnormalities. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PTA 110, 150, 160 and MAS 110, or Consent of Department Chairperson.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 200
Pathophysiology & Complex Systems
This course introduces the remaining body systems and conditions encountered in physical therapy: integumentary, endocrine, immune, hematological, gastrointestinal, genitourinary, and metabolic. For each system and its related conditions, the student will explore etiology, pathology, manifestation, medical and physical therapy treatment, and prognosis. Realistic complex patient care and multi-system involvement is explored through an integration with orthopedic, cardiopulmonary, and neurologic conditions routinely treated by the physical therapist assistant as the patient progresses through the acute care, inpatient rehab and/or SNF, home care, and outpatient physical therapy settings. Upon completion, students should be able to safely, correctly, and effectively apply and document tests, measurements, and interventions in clinical practice related to conditions involving complex system interactions within in the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 201
Neuromuscular Rehabilitation
This course introduces commonly encountered adolescent and adult neurological conditions in physical therapy. In this course, students will learn the applicable foundational knowledge and clinical skills to complete assessment and measurements of sensation, cranial nerve and reflex integrity, cognitive functioning, hypo/hypertonicity, ROM, MMT, spasticity, coordination, and balance. Additionally, this course will further previous and foundational coursework emphasizing clinical decision making skills, proficiency with risk factor assessments, effective exercise progressions and modifications, response to emergent conditions, and wellness and prevention initiatives in neurological patient populations. Upon completion, students should be able to safely, correctly, and effectively apply and document tests, measurements, and interventions in clinical practice based on knowledge of neurological conditions as experienced by patients within in the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of PTA 110, 150 and 160.
3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 211
PTA Clinical Education I
This full time clinical education experience (40 hours per week for 8 weeks) offers students the opportunity to gain exposure to a variety of medical and physical therapy diagnoses, develop patient care skills under the supervision of a clinical instructor (physical therapist assistant and/or physical therapist), and become an active participant in the health care team. Students will be placed in inpatient and outpatient physical therapy settings. Writing assignments, as appropriate to the discipline, are part of this course.
Admittance into the Physical Therapy Assistant Program.
20 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 220
Physical Therapy Across the Lifespan
This course introduces foundations for human development and movement and explores developmental changes across the lifespan. At each developmental stage, this course expands upon physical, cognitive, emotional, psychosocial, and sociocultural changes experienced by individuals and how these differences impact effective physical therapy treatment. Commonly encountered conditions will be introduced along with effective interventions. Upon completion, students should be able to safely, correctly, and effectively apply and document tests, measurements, and interventions in clinical practice based on knowledge of patient conditions experienced across the lifespan within the plan of care and scope of practice of the physical therapist assistant (PTA) under the supervision of a physical therapist. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 221
PTA Clinical Education II
This course provides a short-term affiliation for planned learning experiences and practice under supervision. Emphasis is placed on basic skills including patient transfers, elementary exercise programs and other learned skills. Upon completion, students should be able to demonstrate satisfactory performance as an introductory-level physical therapy assistant student. Writing assignments, as appropriate to the discipline, are part of the course.
First year completion of the Physical Therapy Assistant program with a minimum grade point average of 2.0, or consent of Department Chairperson.
6 Laboratory hours. 2 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 230
Therapeutic Procedures IV
This course covers normal development, adult and pediatric/CNS dysfunction, spinal cord injuries, amputee rehabilitation techniques, and cardiopulmonary rehabilitation. Topics include neurology review, selected rehabilitation techniques, ADL and functional training, prosthetic and orthotic training, and environmental access. Upon completion, students should be able to demonstrate safe and correct application of selected rehabilitation techniques for neurological dysfunction, cardiopulmonary conditions, and amputations. Writing assignments, as appropriate to the discipline, are part of the course.
First year completion of Physical Therapy Assistant program with a minimum grade point average of 2.0, or consent of Department Chairperson.
6 Laboratory hours. 3 Lecture hours. 5 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 240
Health Promotion & Wellness II
This course builds upon content of Health Promotion and Wellness I expanding upon cultural competence, service learning in a broader context as part of the interprofessional team, and continuing professional development as students prepare for the National Physical Therapist Assistant Exam (NPTAE) and employment. The course will integrate classroom and clinical knowledge from throughout the course of study in the physical therapist assistant (PTA) program culminating in a health promotion and wellness initiative aimed at the improving upon the health of the immediate community. Upon completion, students as part of an interprofessional team should be able to complete a needs assessment and implement feasible initiatives aimed at promoting the health and wellness of a culturally diverse community. In addition, students will gain the knowledge and tools to successfully seek licensure and employment. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Physical Therapy Assistant Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 260
Advanced PTA Clinical Education
This terminal full time clinical education experience (40 hours per week for 8 weeks) offers students the opportunity to gain exposure to a variety of medical and physical therapy diagnoses, develop entry-level patient care skills under the supervision of a clinical instructor (physical therapist assistant and/or physical therapist), and become an active participant in the health care team. Students will be placed in inpatient and outpatient physical therapy settings. Writing assignments, as appropriate to the discipline, are part of this course.
Admittance into the Physical Therapy Assistant Program.
20 Laboratory hours. 2 Lecture hours. 7 Credit Hours.
Offered At: MX

Physical Therapist Assistant (PTA) 280
Physical Therapy Assistant Topics
This course covers the physical therapist assistant profession in preparation for the state licensure exam. Topics include developing time management skills and practicing for the competence examinations. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PTA 260 and Consent of Department Chairperson.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Physics (PHYSICS)

Physics (PHYSICS) 115
Physics of Energy and Climate
A study of the influence of physics on society through the lens of energy, thermodynamics, energy sources and energy carriers, and the impact of energy on the environment via global climate change. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 and MATH 99 or Higher or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, WR
IAI: P1 901 GE: Physical Sciences

Physics (PHYSICS) 131
Mechanics And Power
A limited number of principles are covered with emphasis placed on applications. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR
GE: Physical Sciences

Physics (PHYSICS) 132
Electricity Heat And Light
Continuation of Physics 131. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 131, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA

Physics (PHYSICS) 215
Statics
Rigid bodies, fluid statics, friction, moments of inertia, centroids, and virtual work. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235 and MATH 208, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: EGR 942

Physics (PHYSICS) 216
Dynamics
Problems in kinematics, dynamics of a particle and a system of particles, dynamics of a rigid body, work, energy, small oscillations, and general plane motion. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 215 and MATH 208 or consent of the Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: EGR 943

Physics (PHYSICS) 217
Mechanics Of Materials
Study of elastic and inelastic relationships of external forces acting on deformable bodies. Includes stresses and deformations produced by tension and compression, torsion and bending, combined stresses, buckling, repeated loads, impact, and influence of properties of materials. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 215, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, TR, WR
IAI: EGR 945

Physics (PHYSICS) 220
Physics Calculations & Practice
Detailed practice in problems and application of theory for better understanding of physics; application of ideas of physics such as conservation laws, wave motion, invariance and trigonometry, analytic geometry, vector analysis, probability and statistics. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in (PHYSICS 221 or PHYSICS 231), or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK
GE: Physical Sciences

Physics (PHYSICS) 221
Mechanics, Waves, and Heat
Foundations and concepts in Physics, including elementary problems in mechanics wave motion and heat. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 141 or higher or concurrent enrollment in MATH 141 or MATH 143, and Eligibility for ENGLISH 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: P1 900L GE: Physical Sciences

Physics (PHYSICS) 222
Electricity, Light and Modern Physics
Continuation of Physics 221. Exploration of Electromagnetism, Light and Modern Physics using an algebra based approach. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 221, and MATH 141 and Eligibility for ENGLISH 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR

Physics (PHYSICS) 224
Physics Calculations & Practice
For students majoring in engineering or physical sciences. Detailed practice in problems and application of theory involving calculus to provide better understanding of physics. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235, or Consent of Department Chairperson.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK

Physics (PHYSICS) 231
General Physics I: Mechanics & Wave Motion
Statics and dynamics of a particle and a rigid body; oscillatory and wave motion with application to sound. Primarily for liberal arts students and those in pre-medical curricula. Writing assignments, as appropriate to the discipline, are part of the course.
Concurrent enrollment in PHYSICS 220 and Grade of C or better or concurrent enrollment in MATH 141 or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, KK
IAI: P1 900 GE: Physical Sciences

Physics (PHYSICS) 232
General Physics II: Electricity & Magnetism
Electrostatics, magneto statics, laws of DC and AC circuits, electromagnetic radiations and elementary electronics. Primarily for liberal arts students and those in pre-medical curricula. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (PHYSICS 231, or PHYSICS 235), or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA, KK

Physics (PHYSICS) 233
General Physics III: Heat light & Modern Physics
Introductory thermodynamics, geometrical and physical optics, atomic and nuclear radiations and associated elementary quantum aspects. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (PHYSICS 231,or PHYSICS 232), or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA

Physics (PHYSICS) 235
Engineering Physics I: Mechanics & Wave Motion
Exploration of the laws of mechanics and wave motion using calculus to analyze practical and theoretical problems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 207, or concurrent enrollment in MATH 207 and Eligibility for ENGLISH 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: P2 900L,PHY 911 GE: Physical Sciences

Physics (PHYSICS) 236
Engineering Physics II: Electricity & Magnetism
Exploration of electricity and magnetism as they relate to fields, forces and energy using calculus to analyze theoretical and practical problems in lecture and laboratory. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235, and MATH 207 and Eligibility for ENGLISH 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: PHY 912

Physics (PHYSICS) 237
Engineering Physics III: Heat light and Modern Physics
Exploration of the laws of heat, light, and modern physics and analysis of practical and theoretical problems through the use of calculus. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235, and MATH 207 and Eligibility for ENGLISH 101 or Consent of Department Chairperson.
6 Laboratory hours. 2 Lecture hours. 5 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: PHY 913,PHY 915A

Physics (PHYSICS) 238
Introduction to Thermal Physics and Waves
Exploration of thermal physics and waves using calculus. Topics include the concept of temperature, first and second laws of thermodynamics, entropy, ideal gases, thermal properties and the kinetic theory of gases. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 235 (Engineering Physics I) and credit or concurrent registration in MATH 209 (Calculus and Analytical Geometry), or consent of Department Chairperson.
1 Laboratory hours. 2.5 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: PHY 915B

Physics (PHYSICS) 239
Introduction to Quantum Physics and Optics
Calculus-based introduction to optics, quantum physics and applications to nuclei, atoms molecules and solids. Practice laboratory skills by carrying out modern physics labs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PHYSICS 236 (Engineering Physics II) and credit or concurrent registration in MATH 209 (Calculus and Analytical Geometry III) or Consent of Department Chairperson.
0.5 Laboratory hours. 2.5 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: PHY 915C

Physics (PHYSICS) 295
Independent Research in Physics
This course emphasizes independent, student-driven research under the close supervision of a faculty member. Eligibility for course repetition for additional credit hours is determined by the instructor. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Eligibility for course repetition for additional credit hours is determined by the instructor. No more than an accumulated 12 credit hours will be counted towards graduation.
Eligibility for ENGLISH 101 and MATH 140 or higher or Consent of Department Chairperson.
1 Lecture Hours. 1-6 Laboratory Hours. 1.5-4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
Repeatable: Yes, up to 4 times

Polish (POLISH)

Polish (POLISH) 101
First Course Polish
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: WR
HD Course

Polish (POLISH) 102
Second Course Polish
Continuation of Polish 101. Writing assignments, as appropriate to the discipline, are part of the course.
Placement test, or POLISH 101.
4 Lecture hours. 4 Credit Hours.
Offered At: WR
HD Course

Polish (POLISH) 103
Third Course Polish
Review and development of basic language skills, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course.
ACTFL Writing Proficiency Test (Score 3.00), or Placement test, or POLISH 102.
4 Lecture hours. 4 Credit Hours.
Offered At: WR
HD Course

Polish (POLISH) 104
Fourth Course Polish
Review of language structure and interpretation of readings, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course.
ACTFL Writing Proficiency Test (Score 4.00), or Placement test, or POLISH 103.
4 Lecture hours. 4 Credit Hours.
Offered At: WR
IAI: H1 900 GE: Humanities HD Course

Political Science (POL SCI)

Political Science (POL SCI) 200
Principles of Political Science
Basic principles of political science. History, theories, and various traditional and modern approaches to the study of political institutions and ideas. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
IAI: S5 903 GE: Social & Behavioral Sciences

Political Science (POL SCI) 201
The National Government
Development, organization, and functioning of the American national government; origin, growth, and interpretation of the Constitution; and legislative, executive, and judicial processes; administrative development, controls, organization and activities. Successful completion of this course may be used to fulfill the graduation requirement to pass the United States Constitution examination. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S5 900 GE: Social & Behavioral Sciences

Political Science (POL SCI) 202
Urban Government & Politics
Development, forms, functions, powers and problems of urban government in the United States. Emphasis on metropolitan areas, such as Chicago, and intergovernmental relations; examination of local politics and pressure group activity, administrative organization and fiscal responsibilities. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK
GE: Social & Behavioral Sciences

Political Science (POL SCI) 203
Comparative Government
Principles of comparative study of political systems; political culture, governmental structures and institutions, political parties, groups, and ideology; understanding of political systems other than American. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, WR
IAI: S5 905 GE: Social & Behavioral Sciences

Political Science (POL SCI) 204
International Relations
Study of international relations, analysis of international behavior; role of nation-state and international organizations; factors underlying the development, character and, application of foreign policy; war and peace; major social and political forces at work in the contemporary world system. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: S5 904 GE: Social & Behavioral Sciences HD Course

Political Science (POL SCI) 205
Public Administration
Introduction to principles of public administration including the role of administration in modern government and administrative responsibility; organization, personnel management, fiscal operations, budgeting, purchasing, and planning. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK
GE: Social & Behavioral Sciences

Political Science (POL SCI) 206
American Foreign Policy
Examination of conduct and control of American foreign policy in today's complex world; analysis of development of American traditions in foreign policy, machinery which exists for conduct of American foreign relations, factors influencing foreign policy of the United States, and policies and problems relating to countries and regions of the world. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK
GE: Social & Behavioral Sciences HD Course

Political Science (POL SCI) 207
U.S. State & Local Government
Study of state and local political jurisdictions and systems, including their powers, organization, functions, development and contemporary problems. This course will examine the American federal system with special emphasis directed to the governmental structures and public policies of Illinois. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK
IAI: S5 902 GE: Social & Behavioral Sciences

Political Science (POL SCI) 211
Analysis Of White Racism
Nature of white racism: political, economic, social, psychological effects on blacks and whites. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH
GE: Social & Behavioral Sciences HD Course

Political Science (POL SCI) 215
Politics Of Community Organization
Analysis of voting trends; discussion with community spokesmen and politicians; class participation in community politics such as voter registration and political education; how Chicago is governed; role of Republican and Democratic parties and independents. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences

Process Technology (340PRTE)

Process Technology (340PRTE) 116
Process Instrumentation I
This course provides an introduction to the instrumentation used in process industries. Student will develop knowledge of instruments and instrument systems used to monitor and control variables in production processes, especially in the petrochemical industry. Terminology, process variables, symbology, control loops and basic troubleshooting will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 124, and Eligibility for MATH 98, or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 117
Process Instrumentation II
This course is to provide an overview into the field of instrumentation as it relates to operations within the process industries. In this course, students draw upon their knowledge of equipment, systems and instrumentation, to understand the operation of the entire unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds and abnormal situations as well as the Process technician's role in performing the task associated with these concepts within an operating unit. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 116
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 118
Process Technology Equipment
This course provides an overview and introduction into some of the equipment and vessels, and their operations, within the Process Industry. Students will be introduced to process industry equipment fundamentals, such as purpose, terminology, components, operation, and Process Technician's role for operating and troubleshooting the equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 116 and 124.
4 Laboratory hours. 4 Lecture hours. 6 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 202
Quality Control
Introduces many process industry-related quality concepts including operating consistency, continuous improvement, plant economics, team skills, and statistical process control (SPC). Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 118.
3 Lecture hours. 3 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 203
Unit Systems
Introduces the concept of system and plant economics; studies the interrelation of process systems by arranging process equipment into basic systems; explain how factors affecting process systems are controlled under normal conditions; and recognizes abnormal process conditions. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 125.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 204
Operations
Students are Introduced to the operation of process manufacturing including material handling of bulk liquids and solids, and the physics of process technology. The special problems of unit shutdown and startup of chemical plants and refineries is explained as both a business and an environmental problem. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 124 and 203.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 205
Process Troubleshooting
This course integrates the application of process control with the use of computer-simulated exercises. The use of process control simulations challenges the student to exercise logical troubleshooting techniques to solve operational problems. The course utililizes "what if drills" to enhance troubleshooting skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 340PRTE 118 and 203, and Grade of C or better -OR- Concurrent enrollment in CIS 120.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: DA

Process Technology (340PRTE) 206
Process Technology Internship
Participating students work in their area of study under the supervision of college personnel and the participating employer. Internship objectives are developed by the student and his/her faculty adviser, with approval of the participating employer, to provide an appropriate and meaningful work-based learning experience. Writing assignments, as appropriate to the discipline, are part of the course.
15 Laboratory hours. 3 Credit Hours.
Offered At: DA

Psychiatric Rehabilitation (PS REHB)

Psychiatric Rehabilitation (PS REHB) 101
Survey Of Psychiatric Rehabilitation
This course is the first in the series for the Psychiatric Rehabilitation certificate. Courses in the series focus on a rehabilitative approach to servicing individuals with severe mental illness. This approach is based on the premise that consumers set the goals for the rehabilitation team. The survey course has four major themes: understanding psychiatric disability and current approaches to treatment, the mental health system and surrounding legal issues, psychiatric rehabilitation through vocational and skills training, and family and community support systems. The orientation of the course is more practical than theoretical and there is considerable opportunity to observe and practice relevant skill. Consumers serve as guest speakers to highlight issues of empowerment and stigma and to increase understanding of consumer experiences with the mental health system. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Psychiatric Rehabilitation (PS REHB) 102
Psychiatric Rehabilitation Skills
This course is the second in the series for the Psychiatric Rehabilitation Certificate. The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Students learn basic techniques for conducting interviews for use in assessment, treatment planning, and therapeutic interactions with consumers. Students learn to conduct skills training groups and apply behavioral techniques for implementing programs that promote desired skills. Techniques for intervening in crisis situations and preventing and managing aggression are presented. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Course may be repeated up to three times and may count for a maximum of six credit hours. Consent of Department Chairperson required for repeatability.
Grade of C or better in PS REHB 101.
3 Lecture hours. 3 Credit Hours.
Offered At: MX
Repeatable: Yes, up to 4 times

Psychiatric Rehabilitation (PS REHB) 103
Health Skills Psychiatric Rehab
This course examines three-dimensions of wellness: physical, emotional and environmental. Students will learn the fundamentals of physical wellness, including diet, nutrition, exercise, sanitation, disease prevention and control, and special health considerations for persons with severe mental illness. The emotional dimension of wellness includes social support, physical and sensory accommodations, and geriatric and developmental disabilities. Students will learn the essentials of environmental safety, including use of safety equipment and proper body mechanics. Students will develop and practice skills for determining vital signs and documenting their observations. Writing assignments, as appropriate to the discipline, are part of the course.
PS REHB 101
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Psychiatric Rehabilitation (PS REHB) 104
Vocational & Common Living Skills
This course emphasizes the practical applications of vocational and community living skills development for individuals with severe mental illness. Students will observe and practice the fundamentals of vocational rehabilitation, including the duties and tasks commonly required in vocational settings and the development of employment sites. Practical application of current policies affecting employment sites is presented. Networking skills, common state and federal benefit programs and community-based service provision are presented. Writing assignments, as appropriate to the discipline, are part of the course.
PS REHB 101.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Psychiatric Rehabilitation (PS REHB) 105
PRCP Internship
This internship requires a minimum of 240 clock hours of field experience by the student. Experiences are a combination of observation and participation/interaction with consumers of mental health services. The first half (or a minimum of 38 hours) will include five of the following areas: 1) inpatient milieu and general activities; 2) case management activities; 3) vocational training activities; 4) skills training activities; and 5) consumer led activities. The second half of the internship (a minimum of 38 hours) includes interviewing skills and leading skills training groups, and at least one of the following: behavior definition and task analysis, aggression management, assessment and treatment planning, or crisis intervention. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff and/or supervision by field placement director is also required. Writing assignments, as appropriate to the discipline, are part of the course.
Successful completion of (PS REHB 101, PS REHB 102, PS REHB 103, and PS REHB 104).
15 Laboratory hours. 3 Credit Hours.
Offered At: MX

Psychology (PSYCH)

Psychology (PSYCH) 201
General Psychology
Historical survey of psychology and a study of the sensory and perceptual processes: learning, thinking, remembering, emotional behavior, motivation, mechanism of adjustment, and the total personality. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S6 900 GE: Social & Behavioral Sciences

Psychology (PSYCH) 203
The Psychology of Women
An application of the general principals of psychological scholarship and research to the subject of gender and women. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Social & Behavioral Sciences

Psychology (PSYCH) 205
Applied Psychology
Applications of principles of psychology in industry, business, the professions, social welfare, and personal adjustment; career selection, industrial efficiency, advertising, sales, the arts; and detection and treatment of delinquents and criminals. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Social & Behavioral Sciences

Psychology (PSYCH) 206
Business & Industrial Psychology
Psychological principles and techniques applied to activities and problems in business and industry; selling, advertising, market research, personnel work, employee selection and training, supervision, and morale. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, TR, WR
GE: Social & Behavioral Sciences

Psychology (PSYCH) 207
Child Psychology
Development, adjustment, and psychological problems of the child from birth through adolescence; relationship of scientific psychological findings to practical methods of child guidance and training by parents, teachers, and others. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S6 903 GE: Social & Behavioral Sciences

Psychology (PSYCH) 208
Psychology of Exceptional Children
Considers children who do not respond to usual classroom teaching procedures. Includes problems of identification, diagnosis and potential assessment; surveys appropriate instruction and remedial teaching of mentally retarded, physically handicapped, gifted, culturally deprived and maladjusted children. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 207 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW
GE: Social & Behavioral Sciences

Psychology (PSYCH) 209
Black Psychology
Relationship of psychology to colonized situation; understanding colonial experience in psychological terms, emphasis on effects for black and white persons in America of status of blacks during and after legalized slavery. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH
GE: Social & Behavioral Sciences HD Course

Psychology (PSYCH) 210
Principles of Supervisory Psychology
Psychological principles applied to problems with employees, both from the standpoint of management and of employees. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture Hours. 3 Credit Hours.
Offered At: DA, HW, KK

Psychology (PSYCH) 211
Social Psychology
Analyzes development of personality structures and patterns: cultural environment, social roles and status, attitude formation, personality types and measurement of personality. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: S8 900 GE: Social & Behavioral Sciences HD Course

Psychology (PSYCH) 213
Abnormal Psychology
Abnormal behavior and its social significance; symptoms and dynamics of psychological disorders; neuroses and psychosomatic reactions, sociopathic psychoses; consideration of therapies and theories of prevention. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: PSY 905

Psychology (PSYCH) 214
Adolescent Psychology
Continuation of Psychology 207. Physical, intellectual, educational, personality, and social development of adolescents in contemporary society; emphasis on problems of the adolescents adjustment to personal and social environment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 207 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, WR
IAI: S6 904 GE: Social & Behavioral Sciences

Psychology (PSYCH) 215
Psychology Of Personality
Major personality theories to familiarize the student with systems concerned with comprehensively and dynamically interrelating developmental, motivational, and adaptive aspects of behavior; methods of personality assessment and experimental evidence relevant to the theories will also be considered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR

Psychology (PSYCH) 222
Adult Development And Aging
Introduction to psychological problems, issues, facts, and theories relating to later adulthood and old age; societal values and institutions, socio-economic variables, biological and psychological changes, perception, cognition, psychosocial development, personality factors, sexuality and relationships, work and skill issues, adjustment and coping, psychopathology, and therapeutic intervention. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR
IAI: S6 905 GE: Social & Behavioral Sciences

Psychology (PSYCH) 223
Death, Dying & Bereavement
This course will introduce students to psychological problems, issues, facts, theories, opinions, and controversies pertaining to death or loss, the dying process, and bereavement as a response to loss. It will deal with societal values, institutions, psychological variables, the nature of dying and bereavement, the effects of loss on the surviving individual, adjustment and coping problems, relevant behavioral and emotional reactions, and alternatives to societal institutions surrounding death. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: WR

Psychology (PSYCH) 224
Life Span Developmental Psychology
Life Span Developmental Psychology is an introductory course in developmental psychology covering fundamental biological, cognitive, and psychological factors as they apply to the whole span of development. Theories, research design and findings, facts, and principles, as they apply to each age level, will be examined. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S6 902 GE: Social & Behavioral Sciences

Psychology (PSYCH) 240
Research and Statistical Methods in the Behavioral Sciences
Study of methods used in the systematic study of psychology, including psychometric concepts, understanding and application of statistical operations (computer-based), and critique of scholarly empirical reports. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK, TR

Psychology (PSYCH) 299
Special Topics in Psychology
Special topics in Psychology will be discussed along with appropriate lab and/or field trip activities. New developments in the field will be emphasized .Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Course may be repeated up to three times when topics are different, and may count for a maximum of six variable credits. Consent of Department Chairperson required for repeatability.
Grade of C or better in PSYCH 201 or consent of Department Chairperson.
6 Lecture hours. 6 Credit Hours.
Offered At: DA, HW, KK
Repeatable: Yes, up to 4 times

Radiography (RADIOGR)

Radiography (RADIOGR) 101
Intro To Radiation Sciences
Fundamental concepts of medical imaging and the radiation sciences; includes origins of the profession, common terminology and chemicals; technical factors influencing development of the radiograph and technical factors which produce the image. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Radiography program/plan 246.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 102
Attitudes In Patient Care
Skills needed for proper patient care; includes physical and psychological skills necessary to cope with various situations. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Radiography program/plan 246.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 105
Imaging Physics
Structure of matter, electric circuitry, especially the x-ray circuit, interactions between ionizing radiation and matter and principles necessary for production of radiographic image. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 115
Basic Prins Of Image Produc
Analysis of various technical factors and accessories which affect radiographic image; includes basic qualitative factors of image production, and laboratory experiments. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Radiologic Program
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 124
Intro To Patient Care
Proper positioning and basic nursing procedures necessary for patient care; includes proper placement and manipulation of patient and equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Admission into the Radiography program/plan 246.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 128
Image Evaluation
Analysis of image and quality of radiographs images submitted for interpretation; covers patients size, cooperation and pathological condition relative to and influencing accuracy and quality of resultant image. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 131
Radiographic Procedures I
Proper positioning of patient for demonstration of suspect pathology of abdomen and its contents, correlated with course in anatomy and physiology, and routine and contrast media procedures. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 140
Intro To Clinical Education
Physical and technical skills needed to apply ionizing radiation to human beings; clinical orientation and assessment to determine professional preparedness. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
20 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 141
Radiography Clinical Education I
Orientation and initial skills development in basic radiographic procedures; visualization of abdomen and its contents stressed to prepare student for further study in major area of specialization; includes communication, operation of equipment, patient care and technical skills development. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
20 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 200
Pathology
Covers disease process with radiographic manifestations; laboratory sessions include use of radiographs and images from other modalities to visualize various types of pathologic conditions. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 202
Radiology Management
Administration, purchasing and personnel control; practical experience in department administration. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 205
Applied Radiographic Techniques
Practical applications of previously learned concepts; effects of technical factor selection, use of accessories and changes in patient type and condition. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 206
Imaging
The components of radiological imaging system chains; imaging systems will be explored, including current systems and new and emerging modalities. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 208
Radiobiology
Effects of radiation on cells, organs, and organisms and implications on present and future populations, use of ionizing radiation in internal and external treatment of benign and malignant disease. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 232
Radiographic Procedures II
Positioning and patient-care skills applied to additional body systems and correlated with clinical study; proper positioning of patient for demonstration of suspect pathology correlated with previous procedures; includes skeletal and urinary systems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 233
Radiographic Procedures III
Study of additional body systems; includes procedures less frequently performed and those requiring special skills or equipment; procedures covered will not normally require invasive techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 234
Special Radiographic Procedure
Procedures frequently performed in modern department but which employ surgical or other invasive techniques and injection of contrast media into circulatory system; covers emergency procedures and pertinent aspects of some pharmaceuticals. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 242
Radiography Clinical Ed II
Application of concepts learned in related radiography classes; emphasis on progression from role of observer to assistant, then to relative independence under supervision of qualified clinical instructors, radiographers and faculty. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
30 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 243
Radiography Clinical Education III
Progression from role of assistant to greater independence under supervision of qualified clinical instructors. Quality and related aspects of special consent will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
30 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 244
Radiography Clinical Education IV
Progression of student to full clinical independence, upon demonstrating clinical competency. Student can refine skills through independent practice. Includes field experiences in elective specialization. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RADIOGR 101.
30 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 252
Cross Section Anatomy I
This course is the first part of sectional anatomy. Content begins with a review of gross anatomy of the entire body. Detailed study of gross anatomical structures will be conducted systematically for location, relationship to other structures and function. Gross anatomical structures are located and identified in axial (transverse), sagittal, coronal and orthogonal (oblique) planes. Illustrations and anatomy images will be compared with MR and CT images in the same imaging planes and at the same level when applicable. The characteristic appearance of each anatomical structure as it appears on CT and MR will be stressed. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Computed Tomography BC Program
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 253
Cross Section Anatomy II
This course is the second part of sectional anatomy Content begins with a review of gross anatomy of the entire body. Detailed study of gross anatomical structures will be conducted systematically for location, relationship to other structures and function. Gross anatomical structures are located and identified in axial (transverse), sagittal, coronal and orthogonal (oblique) planes. Illustrations and anatomy images will be compared with MR and CT images in the same imaging planes and at the same level when applicable. The characteristic appearance of each anatomical structure as it appears on CT and MR will be stressed. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of RADIOGR 252 with a C or higher.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 254
CT Principles I
This course is the first part of Computed Tomography principles. Content is designed to impart an understanding of the physical principles and instrumentation involved in computed tomography. The historical development and evolution of computed tomography is reviewed. Physics topics covered include the characteristics of x-radiation, CT beam attenuation, linear attenuation coefficients, tissue characteristics and Hounsfield numbers application. Data acquisition and manipulation techniques, image reconstruction algorithms such as filtered back-projection and Fourier transform will be explained. Computed tomography systems and operations will be explored with full coverage of radiographic tube configuration, collimator design and function, detector type, characteristics and functions and the CT computer and array processor. CT image processing and display will be examined from data acquisition through post processing and archiving and patient factors related to other elements affecting image quality will be explained, as well as artifact production and reduction. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Computed Tomography BC Program
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 255
CT Principles II
This course is the second part of Computed Tomography principles. Content is designed to impart an understanding of the physical principles and instrumentation involved in computed tomography. The historical development and evolution of computed tomography is reviewed. Physics topics covered include the characteristics of x-radiation, CT beam attenuation, linear attenuation coefficients, tissue characteristics and Hounsfield numbers application. Data acquisition and manipulation techniques, image reconstruction algorithms such as filtered back-projection and Fourier transform will be explained. Computed tomography systems and operations will be explored with full coverage of radiographic tube configuration, collimator design and function, detector type, characteristics and functions and the CT computer and array processor. CT image processing and display will be examined from data acquisition through post processing and archiving and patient factors related to other elements affecting image quality will be explained, as well as artifact production and reduction. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of RADIOGR 254 with a C or higher.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 256
Computed Tomography Clinical Education I
Orientation and initial skills development in basic computed tomography procedures; through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice, and professional development are discussed and evaluated. Physical and technical skills utilizing ionizing radiation are applied to procedures performed on patients at the clinical setting. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Computed Tomography BC Program
12 Clinical hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 257
Computed Tomography Clinical Education II
A continuation of RADIOGR 256, the development in computed tomography procedures; through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice, and professional development are discussed and evaluated. Physical and technical skills utilizing ionizing radiation are applied to procedures performed on patients at the clinical setting. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of RADIOGR 256 with a C or higher.
12 Clinical hours. 1 Lecture hours. 4 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 258
CT Patient Care & Radiation Safety
This course provides the basic concepts of patient care as well as ethical and legal considerations, radiation protection and the responsibilities for protecting patients, public, and personnel, including physical and psychological needs of the patient and family. Basic understanding of the operation of Computed Tomography, routine and emergency care procedures are described. Students review basic concepts of venipuncture, administration of contrast and agents and discuss the appropriate delivery of patient care during contrast procedures. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Computed Tomography BC Program
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 261
Patient Care and Pathology
This course is designed to provide requisite theories and processes related to mammographic manifestations; proper positioning and basic procedures necessary for patient care; includes proper placement and manipulation of patient and equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Mammography Advanced Program.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 262
Anatomy, Physiology and Procedures
Proper positioning of patient for demonstration of suspect pathology of breast, correlated with course in anatomy and physiology, and routine procedures. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Mammography Advanced Program.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 263
Imaging Production and QA
Analysis of various breast imaging and systems and quality of images submitted for interpretation. Practical applications of previously learned concepts; effects of technical factor selection, use of accessories and changes in patient type and condition. Writing assignments, as appropriate to the discipline, are part of the course.
Admittance into the Mammography Advanced Program.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Radiography (RADIOGR) 265
Mammography Clinical Education
The program strives to empower students of diverse backgrounds and abilities to develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of mammographic procedures. Through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice, and professional development are discussed and evaluated. The program provides graduates with a level of preparation to become licensed, certified and employed entry-level mammographers upon completion of all program requirements.
Admittance into the Mammography Advanced Program.
12 Clinical hours. 1 Lecture hours. 5 Credit Hours.
Offered At: MX

Reading (READING)

Reading (READING) 99
Developmental Reading Skills I
Provides skills necessary for efficient reading of textbooks and other materials. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Reading (READING) 125
Developmental Reading Skills II
For students who need to improve their reading skills; efficient reading of textbooks and other materials including work in mechanics of reading, vocabulary development, comprehension, and rate of reading. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in READING 99, COMPASS Reading (65-79), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR

Reading (READING) 126
Structural Analysis & Critical Reading
Ability to read and to analyze college level materials. For students with advanced reading skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in READING 125, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Respiratory Therapy (RESP TC)

Respiratory Therapy (RESP TC) 114
Basic Respiratory Care
Theoretical and protocol based applications of, indications for, and assessment of efficacy and patient response to basic respiratory care modalities in the cardiopulmonary compromised patient population. Includes such therapeutic modalities as: O2/gas therapy, aerosol and humidity therapy, bronchial hygiene, and hyperinflation therapy. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
Admission into Respiratory Care Program (0234sp)
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 115
Cardiopulmonary/Renal Anatomy & Physiology
Study of cardiac, pulmonary and renal structure and function with emphasis on physiology as applied to the practice of respiratory care. This includes the integrated functions of ventilation, respiration, gas transport and acid base regulation. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
Admission into Respiratory Care Program (0234sp)
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 116
Patient Assessment
Introduction to the role of a respiratory therapist in the hospital setting as a member of a health care team. Includes professional behavior, ethics, legalities, communications, medical terminology, medical charts and cardiopulmonary assessment. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
Admission into Respiratory Care Program (0234sp)
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 117
Respiratory Pharmacology
Anatomy and physiology of the nervous system as applied to the pharmacodynamics of bronchodilation and the effects various drugs have on the cardiovascular and pulmonary systems is emphasized. Indications, dosages, routes of administration, contraindications, adverse effects and dose calculations will be discussed. Clinical simulation, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
Admission into Respiratory Care Program (0234sp)
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 118
Basic Sciences and Infection Control
Applied microbiology and infection control practices related to the hospital environment, respiratory care modalities, and equipment. OSHA and JCAHO infection control practices, including health care practitioners screening tests and risk factors and an understanding of all hospital isolation techniques, will be presented. The basic sciences, ethical and legal issues in the practice of Respiratory Care will also be taught.
Admission into Respiratory Care Program (0234sp)
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 119
Respiratory Care Lab I
Introduction to basic equipment: design, function, troubleshooting and care of respiratory therapy devices and circuitry used to deliver therapy, humidity and aerosol therapy, bronchial hygiene, hyperinflation modalities. Professionalism, communication techniques, monitoring will be practiced in conjunction with laboratory simulated hospital procedures and situations. Basic CPR certification and all proficiency testing of clinical procedures will be done. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
Admission into Respiratory Care Program (0234sp)
6 Laboratory hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 127
Clinical Practice I
Introduction to the hospital setting and the set-up, maintenance and discontinuation of oxygen; aerosol and humidity therapy; intermittent modalities to include bronchial hygiene and hyperinflation therapies. Clinical simulations, tutorials and Writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.
12 Clinical hours. 2 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 129
Clinical Practice II
Supervised clinical course with an introduction to airway management techniques, basic ventilator care techniques, pediatric respiratory care and refinement of floor therapy skills with acute patients. Clinical simulations, tutorials and writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 115, 127, 137, 139, 141 or Consent of Department Chairperson.
20 Clinical hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 137
Advanced Pathology & Clinical Application
Acute and chronic respiratory and cardiac pathological processes and their associated renal complications and compensations: diagnostic testing including arterial blood gasses, basic radiographic interpretation, pulmonary function studies, interpretation of laboratory studies, treatment and prevention of disease processes. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 139
Respiratory Care Lab II
Introduction to hospital specific policies and procedures, continuation of application and practice of respiratory care modalities, now applied to the critically ill patient. Emphasis on airway management, mechanical ventilators, circuitry, mechanical ventilation management and techniques. Comprehensive laboratory competency testing. Clinical cases presented as technical management corollaries. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson
4 Laboratory hours. 2 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 141
Ventilatory-Mechanics I
Theory of basic mechanical ventilator function, methods of ventilation, modes, classification of ventilators, demonstration of basic equipment and circuitry. Airway management indications, selection of type, intubation, management assessment, hazards, extubation and troubleshooting the artificial airway will be covered. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 114, 116, 117, 118, 119 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 146
Ventilatory Mechanics II
Introduction to the theory of mechanical ventilation in the adult patient. Selection of ventilator parameters, commitment, maintenance, weaning. In-depth presentation, discussion, demonstration of specific adult ventilator systems, CPAP, BiPAP circuits, practice and testing. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 115, 127, 137, 139, 141 or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 200
Respiratory Care Lab III
In depth presentation, discussion, demonstration of specific pediatric/neonatal ventilator systems, CPAP circuits, practice and testing. Continuation of adult ventilator practice, practice and integration of other critical care procedures. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 129 and RESP TC 146, or Consent of Department Chairperson.
4 Laboratory hours. 2 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 201
Advanced Respiratory Topics & Research
Basic and advanced mechanical ventilator modes, graphics and applications, airway management concepts, and adjunctive therapies will be covered. Case-based application of mechanical ventilation, prone positioning, medications, patient assessment, and analysis, and choosing appropriate interventions will be heavily emphasized. As applicable to the discipline, writing assignments are part of the course.
Grade of C or better in RESP TC 129 and RESP TC 146, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 222
Clinical Practice III
Supervised clinical course providing advanced airway management skills, advanced ventilator techniques and diagnostic procedures in the hospital setting. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 129 and RESP TC 146 or Consent of Department Chairperson.
24 Clinical hours. 4 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 224
Clinical Practice IV
Supervised clinical course providing advanced airway management skills, advanced adult ventilatory techniques, neonatal respiratory procedures and advanced cardiopulmonary diagnostic procedures. Exposure to alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RESP TC 201,222, 225, 227, or Consent of Department Chairperson.
24 Clinical hours. 4 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 225
Age Specific Care
Introduction to age appropriate considerations of patient education, application of therapeutic modalities and manifestations of cardiopulmonary diseases throughout the human life span. This course will also address managed care, management, patient care plans and alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 129 and RESP TC 146, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 227
Critical Care Services
Advanced cardiopulmonary monitoring is presented with emphasis on ECG interpretation and hemodynamic and exhaled gas monitoring and therapeutic interventions. Chest radiograph, CT and MRI interpretation will be introduced. Pharmacological agents that affect the cardiopulmonary, renal, and acid base regulating systems; paralyzing agents, analgesics, sedatives, administration safety, dose ranges, monitoring response to and basic fluid and electrolyte balance will be presented. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
RESP TC 129, RESP TC 146, or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 230
Advanced Cardiopulmonary Monitoring
Case studies with PFTs, blood gases, hemodynamic profiles, ECGs and related diagnostic testing will be presented along with related pathophysiological changes of cardiopulmonary diseases. Advanced adult, pediatric, neonatal cardiopulmonary life support will be covered. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RESP TC 201,222, 225, 227, or Consent of Department Chairperson.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 250
Cardiopulmonary Rehabilitation Home Care
Care of patients with chronic cardiopulmonary disease in a sub-acute setting and in their homes. Long term therapeutic prescriptions, equipment selection, cleaning and asepsis of equipment in the non-acute care setting. Pulmonary rehabilitation goals and programs presented along with adjunct exercises, equipment and assistive devices. Clinical simulations, tutorials, and Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RESP TC 201,222, 225, 227, or Consent of Department Chairperson.
1 Lecture hours. 1 Credit Hours.
Offered At: MX

Respiratory Therapy (RESP TC) 260
Advanced Specialty Topics
Respiratory care research topics presented, ethics and board examination preparation, computer-assisted clinical simulations along with branching logic, latent image practice and mock certification and registry examination preparation and practice. Resume, portfolio and job interview preparation will also be included. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in RESP TC 201,222, 225, 227, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Short Term Health (STHLTH)

Short Term Health (STHLTH) 158
EKG Technician
Students will learn the skills needed to become an EKG/cardiovascular technician in this comprehensive course. Students will learn the anatomy and physiology of the heart, medical disease processes, medical terminology, medical ethics, and legal aspects of patient contacts. Students will also be introduced to the associated areas of laboratory assisting, and electrocardiography. The hands-on practice the students receive will help in preparing for the national exam administered through (NCCT) National Center for Competency Training. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Short Term Health (STHLTH) 174
Patient Care Technician Training
This course is designed for students interested in allied health fields. The course introduces students to the healthcare delivery system, health professions, primary patient care, fundamental clinical skills and healthcare communications. Safety, healthcare professionalism, employability skills, basic infection control, HIPPA, and OSHA are also included. The course will prepare individuals to accurately perform electrocardiograms as a supportive diagnostic procedure. Basic arrhythmia recognition will be taught to enable the student to recognize familiar ECG patterns including major life threatening rhythms. Additionally, the student will learn basic venipuncture techniques and human specimen management for diagnostic purposes. The course will consist of theory and lab experience to promote competence in phlebotomy techniques and ECG acquisition. Writing assignments, as appropriate to the discipline, are part of the course.
Placement into ARC as determined by the CCC Placement Test, the RTW (Read to Write), successful completion of the course immediately preceding ARC in the course sequence based on departmental, faculty-approved assessment, or Consent of Department.
4 Laboratory hours. 6 Lecture hours. 8 Credit Hours.
Offered At: MX

Short Term Health (STHLTH) 624
BNA Fundamentals/Clinical
This course is part of the curriculum designed to prepare individuals to work in the healthcare industry as Certified Nursing Assistants, (CNAs). The student is introduced to the discipline of nursing and the basic approaches of patient care. The concepts of caring for the whole person, nursing practice, multi-cultural society, and communication are addressed as students assist the licensed nurse and other members of the healthcare team to meet the basic health needs of older persons is studied, and practiced in the classroom laboratory in addition to the clinical settings. Writing assignments and testing of knowledge as appropriate to this discipline are part of this course. Clinical laboratory sessions include pre-conference and post-conference at area clinical facilities. Theoretical concepts and clinical skills contained within the course are consistent with basic nursing assistant skill and standards developed by the Illinois Department of Public Health.
Eligibility for ENGLISH 96 or ESLINTG 99 and MATH 98 or consent of Department Chairperson.
4 Laboratory hours. 6 Lecture hours. 8 Credit Hours.
Offered At: KK, MX

Short Term Trd/Indstrl/Trnsprt (STTRDE)

Short Term Trd/Indstrl/Trnsprt (STTRDE) 106
Road Driving
Designed for individuals with little or no commercial truck driving experience, this course provides theoretical foundation to become a commercial driver. Students will learn the regulations that governs each classification and why commercial vehicles are identified by classifications. Through this course, students will be eligible to obtain their commercial driver's license. Upon successful completion, students will receive a certificate of completion and a Class "A" Commercial drivers license. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 148 and 337, and earned their Commercial License Permit (CLP). Must be 18 years of age or older, possess a valid driver's license, a good driving record, and pass both a physical exam and an alcohol/drug test.
4 Laboratory hours. 2 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 116
Class B-Passenger Endorsement
The purpose of this course is to provide students with the necessary training required to safely transport passengers in commercial in motor vehicles. Students receive training in pre-trip and post-trip inspection, loading and unloading, use of brake-door interlocks, passenger transportation and prohibited practices. Upon completion of this course students will receive a certificate of completion and a Passenger Endorsement on their Commercial Drivers License.
1 Laboratory hours. 0.5 Lecture hours. 1 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 117
Class B-School Bus Endorsement
The purpose of this course is to provide students with the necessary training required to become safe school bus drivers. Training will include pre-trip and post-trip inspection, loading and unloading, transporting students with special needs, proper securement of child safety seats, evacuation, railroad crossings and school bus operations. Upon completion of this course, students will receive a certificate of completion and a School Bus and Passenger Endorsement on their Commercial Drivers License.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 118
Forklift Operator
The Forklift Operator course prepares students for the workplace. Upon completion of this course, students will have a working knowledge of the basic need and use of the lift truck. Students will also be able to safely inspect and operate the lift truck. This course includes theory and practical training.
1 Laboratory hours. 1.5 Lecture hours. 2 Credit Hours.
Offered At: OH
Repeatable: Yes, up to 1 times

Short Term Trd/Indstrl/Trnsprt (STTRDE) 136
Basic Horticulture
This course will introduce students to basic concepts of Horticulture with emphasis on basic anatomy, terminology, and functions of plants and professions surrounding culture and use of ornamental plants. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 137
Managing Urban Green Space
This subject will provide an understanding of how to manage urban green spaces. The study policy, planning and process issues, community consultation, structures, systems and contractual relationships, landscape documentation, project planning and implementation, life-cycle analysis of landscape elements, urban vegetation planning, implementation and maintenance, sustainability concepts and examples. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136 Basic Horticulture.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 138
Horticultural Plant Science
This subject covers the structure and function of plants and plant tissue, cell physiology, energy transformations, metabolism, photosynthesis, plant nutrition, water and nutrient uptake and transport and whole plant physiology. By the conclusion of this subject the student should be able to demonstrate their, of the and of the integration of these processes in the physiology of plant growth. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 139
Urban Horticultural Floral
This course will provide the student with a working knowledge of plant science, anatomy, morphology, physiology, taxonomy, reproduction and genetics as they relate to horticultural ornamental plants. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136 - Basic Horticulture
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 140
Greenhouse Crop Production
This course will cover information on the production of greenhouse crops and the cultural practices required for growth. Subjects including seeding, watering, fertilization, containers, growing Medias, temperature control, insect and disease control will be covered. Greenhouse plants and pot crops will be grown throughout the semester. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136 - Basic Horticulture
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 141
Soil Fertility and Assessment
This course introduces students to the ways that farmers and gardeners develop and maintain soil fertility in sustainable farming systems. Subjects include introduction to the tools, techniques and rational behind soil cultivation, soil analysis, soil physical properties, components, nutrient deficiency, soil chemistry, and soil fertility. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in CE TRDE 136- Basic Horticulture.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 142
Management of Plant and Animal Invasion
This course will provide insight and learning of the invasions that are natural ecological phenomena. Dispersing individuals encounter suitable habitat, establish, spread and evolve. In this way, species have radiated outwards from their origins, colonized distant offshore islands, and species have spread in response to changes in climate. Human-induced invasions of plants, animals and diseases in modern times have dramatically altered the scales of time and distance over which invasions take place. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136 - Basic Horticulture.
4 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 143
Sustainable Farming Practices
This course is designated for those interested in or presently working in the area of grounds care and maintenance. Areas of study including pruning, fertilizing, pesticide use, digging and replacement of landscape plants, general turf care and maintenance of equipment. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136 , 140 and 141.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 144
Practicum/Internship
This Practicum/Internship is designed for those who have successfully completed the course work for all courses associated with the Sustainable Urban Horticulture program. This Practicum/Internship will allow the student to experience the full vision and mission of the program. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in STTRDE 136, 137,138,139, 140, 141,142,143 and Consent of Department Chairperson.
10 Laboratory hours. 5 Credit Hours.
Offered At: DA

Short Term Trd/Indstrl/Trnsprt (STTRDE) 145
Class C Driver Training
This course provides in-depth coverage of the laws, rules, and regulations that are applicable to the operation of both commercial and non-commercial motor vehicles. Students gain knowledge and skills in the area of vehicle inspection, pre-testing, skill operations, and defensive driving techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Must be at least 21 years of age, possess a valid driver license, eligible for Department of Transportation Medical Card, and physically able to operate the vehicle and maintain negative drug/alcohol testing.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 147
Passenger Driver Practice
This course is designed for individuals with little or no commercial driving experience, this course provides the theoretical foundation to become a commercial driver. Students will learn the regulations and actual applications that governs each classification and why commercial vehicles are identified by classification. Students will obtain their Class B Commercial Driver's License Learner's Permit.
Prospective student must be 21 years of age or older, possess a valid drivers license, a good driving record (demonstrated through a court ordered motor vehicle report) and pass a physical examination. Additionally they must successfully obtain the clas
8 Laboratory hours. 4 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 148
Commercial Driving Training Practice
This course is designed as the continuation of the theory course, this course provides students with behind-the -wheel experience leading them to present their driver's exam and obtaining the Illinois Commercial Driver's License. Writing assignments, as appropriate to the discipline, are part of the course.
Student must be 21 years of age or older, possess a valid drivers license, a good driving record (demonstrated thru a court ordered motor vehicle report) & pass a physical exam. Grade of C or better in STTRDE 0337 & obtain a CDL learner's permit.
14 Laboratory hours. 7 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 149
Commercial Driver/Refresher Training
This course is designed for individuals with commercial driving experience, this course provides drivers with a review of the current rules, regulations and requirements to which all commercial drivers must adhere. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 337
Commercial Driver Training Theory
This course is designed for individuals with little or no commercial driving experience, this course provides the theoretical foundation to become a commercial driver. Through this course, students will obtain their commercial driver's license learner's permit. Writing assignments, as appropriate to the discipline, are part of the course.
Prospective students must be 21 years of age or older, possess a valid drivers license, a good driving record (demonstrated through a court ordered motor vehicle report) and pass a physical examination and drug/alcohol test.
1 Laboratory hours. 6.5 Lecture hours. 7 Credit Hours.
Offered At: OH

Short Term Trd/Indstrl/Trnsprt (STTRDE) 338
Passenger Driver Theory
This course is designed for individuals with little or no commercial driving experience, this course provides the theoretical foundation to become a commercial driver. Through this course, students will obtain their commercial driver?s license learner?s permit. Writing assignments, as appropriate to the discipline, are part of the course.
Prospective students must be 21 years of age or older, posses a valid drivers license, a good driving record (demonstrated through a court ordered motor vehicle report) and pass a Department of Transportation (DOT) physical examination.
5 Lecture hours. 5 Credit Hours.
Offered At: OH

Short Trm Busn/Profession Srvc (STBPS)

Short Trm Busn/Profession Srvc (STBPS) 168
Illustrator
Adobe Illustrator CS4 is the powerful graphic program used by visual artists and graphic design professionals. It provides unique illustration tools for drawing, painting, text manipulations, page layout, title design and optimization for the web. This class focuses on creating compact, ventor graphics to be used in web pages or exported to Flash to create complex web animation. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: TR

Social Science (SOC SCI)

Social Science (SOC SCI) 101
General Course I Social Science
A survey of subject matter and concepts selected from the disciplines of anthropology, psychology, and sociology. Writing assignments, as appropriate to the discipline, are part of the course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S9 900 GE: Social & Behavioral Sciences

Social Science (SOC SCI) 102
General Course II Social Science
A survey of subject matter and concepts selected from the disciplines of economics, geography, history, and political science. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S9 901 GE: Social & Behavioral Sciences

Social Science (SOC SCI) 103
Intro To Applied Social Science
General introduction to influence of modern scientific technology on the life of the worker, the study of social problems that affect lives of working people in the years to come, and contribution of social science to development of social participation skills necessary for vocational and marital success. Applicable for A.A.S. degree only. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Science (SOC SCI) 104
Special Topics in the Social Sciences
This course focuses upon selected topics in social sciences. The course is offered to students interested in the characteristics of group life, the effect of the local action on the global scene, and the interrelationships between society culture, and the individual. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: MX
Repeatable: Yes, up to 4 times

Social Science (SOC SCI) 105
American Social Issues
Critical study of selected current social problems such as labor relations, the welfare system, civil rights and automation. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK
GE: Social & Behavioral Sciences

Social Science (SOC SCI) 106
North & South American Social Development
Structure and culture of modern urban and industrial development; topics include industrialization and leisure, their consequences for status and class organization in the work place and social organization in the wider community, social inequality, social stratification and mobility, and changing values and social structures. Writing assignments, as appropriate to the discipline, are part of this course
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA
GE: Social & Behavioral Sciences

Social Science (SOC SCI) 110
Introduction to Global Studies
To prepare students for an increasingly interdependent world, this multi disciplinary core course cultivates an active conversation about the interconnected global context of our lives. The class examines shared and divergent histories, politics, aesthetics, communication practices, cultures, and economies, as well as human impact on the environment by paying close attention to contradictions among ethnic and religious identities, strong national affiliations, and the fluidity of nation-state borders. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: WR
HD Course

Social Science (SOC SCI) 160
Community Organizing
Study of the principles, strategies, and practical skills essential for effective community organizing. Through a combination of lectures, discussions, case studies, and hands-on projects, students will gain a comprehensive understanding of community organizing as a catalyst for social change. Participants will develop the knowledge and skills necessary to engage with diverse communities, identify pressing issues, mobilize support, and create sustainable, positive impact. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Science (SOC SCI) 221
Black Economics
African-Americans as producers rather than consumers, evaluation, understanding of black power and militancy. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences HD Course

Social Science (SOC SCI) 260
Community Development
An in-depth analysis of issues and topics related to community development; explores the relationship between community development and community organizing from a strengths-based community development lens. The courses utilizes both community development theory and practice, including real-world examples, local case studies, and presentations from community development professionals. Written assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SOC SCI 160 or consent of department chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Science (SOC SCI) 265
Practicum in Community Leadership
Fieldwork placement at a community organization under the supervision of a community organizer and/or non-profit leader. Students will participate in weekly seminars to reflect and learn new leadership and organizing concepts. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SOC SCI 160 and 260, or consent of Department Chairperson.
2 Lecture hours. 10 Practicum hours. 4 Credit Hours.
Offered At: KK

Social Service (SOC SER)

Social Service (SOC SER) 101
Introduction To Social Work
Concepts, principles, and processes encountered by social service workers; questions of motivation, acceptance, attitude, techniques of listening and interviewing. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 100, or Grade of C or better in ENGLISH 98, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 102
Introduction To Gerontology
An overview of elder issues including the social, psychological and physical aspects of the aging process. The course will also examine the economic and social impact of the growing elderly population on US society and the global community and will explore career opportunities in this expanding field. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Social Service (SOC SER) 108
Racial Healing Methodology
Racial Healing Methodology course aims to jettison the false belief in a hierarchy of human value and replace that archaic notion with a reverence and appreciation for the equal and interconnected nature of the human family. The course will cover the five components of the racial Healing Framework which are Narrative Change, Racial Healing and Relationship Building, Separation, Law, and Economy. The ultimate goal of the Racial Healing Methodology course is to expand the community of healers by training, empowering, and emboldening youth, and youth workers. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Service (SOC SER) 109
Report Writing for Social Service Aides
Introduction to records, reports, and forms required in social agencies; report writing and record keeping. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, SOC SER 101, SOC SER 201 (or concurrent enrolment in Social Service 201), or consent of the Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 201
Principles of Social Work Practice
Introduction to social welfare resources of the community; discussion of methods to help persons make use of these resources, including analysis of the helping relationship, role of non-professional worker, problem-solving approach to individual, family, and community problems. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101 and SOC SER 101.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 206
Human Development and Aging
This course builds on human growth and development, specifically designed to focus on development tasks relative to those who are fifty (50) and beyond. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW

Social Service (SOC SER) 208
Racial Healing Practicum
Fieldwork placement at a community agency employing Racial Healing Circles Methodologies. Writing assignments, as appropriate to the discipline, are part of the course.
Completion of or concurrent enrollment SOC SER 101, SOC SER 212, and SOC SER 108, or consent of Chairperson.
0.5 Lecture hours. 3 Practicum hours. 1 Credit Hours.
Offered At: KK

Social Service (SOC SER) 212
Introduction To Group Process
For persons who work with groups; parent groups, community action programs, recreation programs, church groups, or in child care programs. How individuals function as group members; role of the leader; encouraging participation and group action for achieving group goals. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in English 101, Grade of C or better SOC SERV 101, 201, MENHLTH 223 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 213
Advanced Group Process
For students who desire to develop skill in working with groups; discussion of techniques for working most effectively with different types of groups. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SOC SER 212.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Service (SOC SER) 215
Social Prob & Soc Action I
For group workers, community leaders, and teachers. Problems of urbanization, industrialization, cultural and educational deprivation, juvenile delinquency, and techniques and programs organized to combat these problems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 228
Social Work with Families : Evidence Based Practice
Principles of social services and counseling applied to work with families; community resources available to meet economic, emotional, and health needs, and techniques for implementing referrals for such services. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in ENGLISH 101, CHLD DV 101, SOC SER 101, Grade of C or better or concurrent enrollment in SOC SER 201 and CHLD DV 102; or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 229
Social Service Practicum
Field work placement in a family welfare agency 20 hours per week, 8 or 16 weeks; 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in Social Service 101,109,201,215,228 and Child Development 101,102, or Consent of Department Chairperson. Must attend a mandatory orientation, prior acceptance of program and secure a practicum site before the first day of class.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 230
Domestic Violence Practicum
This course will provide students with both a micro and macro perspective of a silent problem that is drastically impacting society today-Domestic Violence. This course will introduce students to the history of domestic violence, and theories and methods used to study domestic violence. This course will be devoted to discussions of different forms of domestic violence including elder abuse, child abuse, and intimate partner violence. There will be dialog of how violence is shaped by social location, race, class, and gender. Additionally discussions will include special topics in domestic violence regarding heterosexual and homosexual families, religion, the military, and American and Global cultures students will use both in a classroom setting and their cooperative work experiences to learn and practice intervention, as well as prevention strategies utilized by social service agencies and the criminal justice system. Upon successful completion of this course and cooperative work experience hours students will receive the Illinois Domestic Violence 40 certification (provided by an approved Illinois Domestic Violence training site). Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in English 101, and Concurrent enrollment in SOC SER 228, or Consent of Department Chairperson.
10 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Service (SOC SER) 248
Principles Of Youth & Group Work
Social development and behavior of young people and other adults in all group settings; church groups, street gangs, tutoring programs, recreational groups, YMCAs and YWCAs settlement or delinquency prevention programs. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 249
Practicum In Youth Work
Field work assignment in youth agency 20 hours per week, 8 or 16 weeks; 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (CHLD DV 101 and CHLD DV 102 and SOC SER 101 and SOC SER 248), or Consent of Department Chairperson.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: HW, KK

Social Service (SOC SER) 258
Prin Practice In Comm Org
For students who work with community action programs, community planning, or neighborhood improvement. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in (CHLD DV 102 and SOC SER 101 and SOC SER 201 and SOC SER 213), or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Social Service (SOC SER) 259
Practicum in Community Service
Field work placement in a community service agency plus weekly seminars. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SOC SER 258, or Consent of Department Chairperson.
20 Laboratory hours. 2 Lecture hours. 6 Credit Hours.
Offered At: KK

Sociology (SOC)

Sociology (SOC) 110
Religion And Society
Sociological investigation into relationship between religious values and forms of social organization. Concentration on contemporary religious movements and includes examples from Christian, Jewish, Islamic and non-western religions. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences

Sociology (SOC) 201
Intro To the Study Of Society
Characteristics of group life, the effect of the group on human conduct, and the interrelationships between society, culture, and the individual. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S7 900 GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 202
Sociology Of Urban Life
Study of urbanization, personal and social disorganization, collective behavior, social movements and voluntary associations, race and ethnic relations, social stratification, industrial relations, and political sociology. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR
GE: Social & Behavioral Sciences

Sociology (SOC) 203
Sociology of Families and Intimate Relationships
Study of intimate relationships, communication, and the family as a dynamic social institution. Intersectional emphasis on past and present differences, similarities, and inequalities. Analysis along gender, race, ethnicity, sexual orientation, and socio-economic statuses. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S7 902 GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 205
Social Problems
Understanding current social problems. This class explores the genesis, significance, and amelioration of social problems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, KK, MX, TR, WR
IAI: S7 901 GE: Social & Behavioral Sciences

Sociology (SOC) 207
The Sociology Of Sex & Gender
Examines the difference between behavior based on what society says is appropriate in order to be masculine or feminine. Examines the question of what forces in society are most influential in determining the place or men and women with special emphasis on power. Examines how this influence works through the process of socialization and core social institutions, including marriage and family, education, religion, the economy, and politics. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: S7 904D GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 209
The Black Man In The U S
Environmental factors that identify African-Americans as an ethnic group in the United States; study of social values, attitudes, definition, behavior, social institutions and processes of this ethnic group. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK
GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 210
Diverse Cultures/Global Age
Examines the issues of diversity and prepares students to speak and act with sensitivity and awareness of others. Students will gain proficiency in global events and their implications; students will learn how to interact with international visitors through the use of role playing. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW
HD Course

Sociology (SOC) 211
Race & Ethnic Relations
A comparative analysis of racial, religious and ethnic groups. The course examines how group identity is formed and it is maintained or persists. It includes how group identity affects inter-group relations, social movements, government policy and related social problems. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, OH, TR, WR
IAI: S7 903D GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 241
Institutional Racism
Survey of racism in basic institutions of American life: education, law enforcement, health services, government, business, industry, religion, entertainment, science, and housing. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH, WR
IAI: S7 903D GE: Social & Behavioral Sciences HD Course

Sociology (SOC) 280
Human Relations
Social and psychological aspects of inter-group relations; relationships between the dominant group and minority religious, ethnic, racial and social class groups. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: TR
GE: Social & Behavioral Sciences HD Course

Spanish (SPANISH)

Spanish (SPANISH) 101
First Course Spanish
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
HD Course

Spanish (SPANISH) 102
Second Course Spanish
Continuation of Spanish 101. Writing assignments, as appropriate to the discipline, are part of the course.
Placement Test or Grade of C or better in SPANISH 101
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
HD Course

Spanish (SPANISH) 103
Third Course Spanish
Review and development of basic language skills, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 102; or Placement Exam and Interview with World Language Faculty
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
HD Course

Spanish (SPANISH) 104
Fourth Course Spanish
Review of language structure and interpretation of readings, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 103; or Placement Test and Interview with World Language Faculty.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: H1 900 GE: Humanities HD Course

Spanish (SPANISH) 111
Spanish For Hispanos
Formal structure of Spanish and preparation for enrollment in advanced courses. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX
IAI: H1 900 GE: Humanities HD Course

Spanish (SPANISH) 112
Spanish for Health Care Professionals
This course is a Spanish language course geared toward individuals studying or working in health-related areas. The course is devoted to the study of medical terminology in Spanish and the cultural issues related to successful interactions with Spanish-speaking patients and their families in the clinical setting. It will introduce the student to a wide array of vocabulary particular to the medical field, as well as help the student develop a cultural understanding of medicine and illness in the Spanish-speaking world to prepare for potential work with Spanish-speaking patients in future careers in medicine, nursing, social work, translation/interpretation, or mental health settings.
4 Lecture hours. 4 Credit Hours.
Offered At: TR

Spanish (SPANISH) 113
Spanish For Near Native Speakers I
Review of formal structure and sound system of language for near-native speakers; emphasis on accurate, fluent and effective oral expression. Writing assignments, as appropriate to the discipline, are part of the course.
Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, MX, WR
IAI: H1 900 GE: Humanities HD Course

Spanish (SPANISH) 114
Spanish for Near-Native Speakers II
Continuation of Spanish 113. Emphasis on reading and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 113 or Consent of Department Chairperson
4 Lecture hours. 4 Credit Hours.
Offered At: DA, HW, WR
GE: Humanities HD Course

Spanish (SPANISH) 191
Survival Spanish Nursing
Provides trans-cultural training for nurses and future nurses. Emphasis is on enhancing quality patient care. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: KK, MX, TR
HD Course

Spanish (SPANISH) 192
Spanish for Law Enforcement
"Spanish for Law Enforcement Officers" is designed to prepare non-Spanish-speaking police officers to use Spanish language skills and cross-cultural strategies to enhance their ability to aid victims and control offenders in potentially dangerous situations involving native Spanish speakers. Note: This course is NOT a substitute for any criminal justice course. It is strictly to enhance learned knowledge of policing protocols. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Spanish (SPANISH) 193
Spanish for Radiography
Spanish for Radiography is a comprehensive Spanish language program that provides cross-cultural training and immediate access to functional language skills for non-Spanish-speaking students in the Radiography Program as well as radiologic technologists, radiology technicians and radiology personnel who have a need to interact with and treat Spanish-speaking patients in need of radiology services. Writing assignments, as appropriate to the discipline, are part of the course. No prior knowledge of Spanish required.
3 Lecture hours. 3 Credit Hours.
Offered At: MX
HD Course

Spanish (SPANISH) 195
Spanish for Firefighters and EMTs
Spanish for Firefighters and EMTs is a comprehensive Spanish language program that provides immediate access to functional language skills for non-Spanish-speaking students in the EMT/Fire Science Program and non-Spanish speaking Firefighters and EMTs currently employed. This course prepares Firefighters and EMTs to respond to fire, chemical and still alarms where only Spanish is spoken. Emphasis is placed on concise Spanish to determine the patient's chief complaint, extent of injury of illness, as well as explain procedures and treatment. Writing assignments, as appropriate to the discipline, are part of the course. No prior knowledge of Spanish required.
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Spanish (SPANISH) 206
Intensive Oral Practice Spanish
Practice in spoken language, fluency and accuracy. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 104, or Placement Test, or Consent of Department Chairperson.
4 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, TR, WR
GE: Humanities HD Course

Spanish (SPANISH) 210
Modern Civilization & Culture Spanish
Recent social, cultural, and historical trends, conducted in Spanish and English. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: H1 900 GE: Humanities HD Course

Spanish (SPANISH) 213
Intro To Modern Literature Spanish
Selections from contemporary writings, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 104, or Placement Test, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, WR
IAI: H3 916 GE: Humanities HD Course

Spanish (SPANISH) 214
Readings In Literature Spanish
Works from selected historical periods, conducted in the Spanish. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPANISH 104, or Placement Test, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, TR, WR
IAI: H3 916 GE: Humanities HD Course

Speech (SPEECH)

Speech (SPEECH) 101
Fundamentals of Speech Communication
Theory and practice of oral communication; development of poise and confidence, delivery, and speech organization; public speaking practice; small group discussion, and development of standards of criticism. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture Hours. 3 Credit Hours.
Offered At: DA, HW, KK, MX, OH, TR, WR
IAI: C2 900 GE: Communications

Speech (SPEECH) 102
Public Speaking
Advanced theory and practice of oral communication in public speaking in speaker-audience situation; discussion of psychological effects of speech techniques, choice of words, attitudes, and structuring; role of speech in gaining consensus in a confrontation of the rhetoric of agitation and control; studies of outside speakers from personal viewing, television viewing, and examination of speech texts, argumentative techniques used in the persuasive speech. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPEECH 101-1, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, WR

Speech (SPEECH) 104
Group Communication
Principles and theories involved in discussion techniques; participation in various kinds of discussion groups to prepare student for leadership roles in community, business, and professional groups. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPEECH 101-1, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR

Speech (SPEECH) 106
Human Communications
Types of verbal and nonverbal communication, oral and visual, as transmission of data and information to elicit a response; includes methods of encoding information for communication, history, social consequences of modern communication, both verbal and visual. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Speech (SPEECH) 112
Intro To Oral Communication
Process of communication applied to interpersonal group and mass communication; emphasis on practical application of communication in our daily lives. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Speech (SPEECH) 131
Introduction To The Theater
Elementary principles of acting, directing, scene design, scene construction, costuming, lighting, sound and makeup for the stage. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR
GE: Fine Arts

Speech (SPEECH) 135
Speech Projects
A speech project performed outside of the classroom as an activity. Writing assignments, as appropriate to the discipline, are part of the course. Allowed Repeatable Course: Not more than an accumulated two credit hours will be counted towards graduation.
Consent of Department Chairperson.
3 Laboratory hours. 1 Credit Hours.
Offered At: HW, KK, WR
Repeatable: Yes, up to 2 times

Speech (SPEECH) 140
Speech Clinic
For students with problems in voice or diction. Huskiness, lack of vocal melody, nasality, slovenly diction, sound substitution, lack of ease in precise articulation of consonant and vowel sounds are treated. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Speech (SPEECH) 143
Training The Speaking Voice
Improvement and development of an individuals voice, speech, pitch, volume, and overall articulation through use of phonetics of American English. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, WR

Speech (SPEECH) 144
Oral Reading & Interpretation
Study of communication skills required for effective oral reading; experience in oral interpretation of representative examples from prose, poetry, and drama. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPEECH 101-1, or Consent of Department Chairperson.
2-3 Lecture Hours. 2-3 Credit Hours.
Offered At: HW, KK, WR
IAI: TA 916

Speech (SPEECH) 145
Radio And Television
Historical development of broadcasting and analysis of existing programs; objectives of radio and television, study of program types, acceptable standards for broadcasting, and career opportunities. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Speech (SPEECH) 160
Business & Professional Speech
Speech techniques used in selling, administrative reporting, public relations, program speaking, conference procedures, and other industrial and professional presentations. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, WR

Speech (SPEECH) 202
Interpersonal Communication
Study of leadership, group process, and interpersonal relations in the small group, conference, and public forum. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, TR, WR

Speech (SPEECH) 206
Argumentation
Role of debate in a democratic society; principles of investigation and analysis of issues, types and tests of evidence and reasoning as applied to public questions. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPEECH 101-1, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Speech (SPEECH) 243
Speech For Teachers
Correcting common errors of articulation, identifying and directing remedial cases, reading aloud with interest, controlling and directing simple classroom discussions, developing good speaking voices, and selecting and presenting assembly programs. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SPEECH 101-1, or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK

Supply Chain Mgmt & Logistics (SCML)

Supply Chain Mgmt Logistics (SCML) 150
Intro To Transportation Administration
This course covers transportation practices and strategies for the 21st century Provides an overview of basic principles and processes for transportation related functions in both the public and private sectors; covers state and federal regulations; provides a historical look at transportation in the U.S. and the impact it has on the economy; characteristics of different modules of transportation will be discussed. The role and importance of transportation in the economy and its relationship to the supply chain will be covered in detail. Transportation modes - trucks, rail, air, and water - will be examined for both domestic and global transportation. Review support functions for transportation management. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 151
Central Store: Applied Logistics
This course allows students to perform entry-level job functions in "The Central Store," which is a live logistics operation. In this course, students work in the Central Store under supervision, allowing them an opportunity to gain the skills needed to demonstrate preparedness for full time employment in a logistics environment. Additionally, students will apply critical thinking and business communications skills. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
2 Laboratory hours. 4 Lecture hours. 6 Credit Hours.
Offered At: OH
Repeatable: Yes, up to 4 times

Supply Chain Mgmt Logistics (SCML) 152
Intro To Business Logistics
An introduction to the interrelated activities involved with the inbound, in process and outbound movement and storage of goods as well as the related information from the manufacturer to the consumer. There will be a special emphasis placed on how the functional areas of logistics such as customer service, transportation, inventory control, warehousing and packaging impact supply channel decision-making. Introduction and analysis of the logistics concept to include a brief history of logistics, the management of transportation, inventory, packaging, warehousing, materials handling, order processing, facility location and customer service. Writing assignments, as appropriate to the discipline, are part of the course. .
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 154
Customer Service Operations
An introduction to customer service operations and to the key elements of customer service that are necessary to ensure high levels of customer satisfaction. Key elements include: the customer order process, reverse logistics, characteristics of good customer service, customer relationship management (CRM), customer life cycle (CLC), service performance metrics, supplier management inventory, order management, delivery and tracking and approaches to addressing challenging customer situations that inhibit satisfaction. Covers the fundamentals of finish goods movements from the point of production to the receipt by the customer; includes transportation, warehousing, inventory deployment and physical distribution. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 155
Warehouse Management
Overview of warehouse equipment, procedures, facility layout, the role of the warehouse and logistic and business. This course will enable students to understand the various functions involved in the operation of a warehouse. Key elements include: the role of warehousing in the supply chain, storage and handling techniques, performance metrics, customer service considerations, and safety concerns across various types of distribution facilities. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 158
Purchasing
An introduction to purchasing roles and functions. Functions include: strategic sourcing, purchasing operations, supply chain management, project management, credit, receiving, delivery tracking, supplier selection and administration, qualification of new suppliers, preparing purchase orders, negotiating price and delivery, strategic customer/vendor relationships, and resolution of problems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 159
Inventory Management
Fundamental principles of inventory control; inventory classifications – raw materials, work-in-process, finished goods and maintenance, repair and operations inventory. Using Pareto analysis (80/20 rule) and ABC classifications; importance of inventory record accuracy; inventory turnover and other inventory measurements; principles of Enterprise Resource Planning (ERP), Material Requirements Planning (MRP) and Manufacturing Resource Planning (MRP II); inventory control systems; internal and external lead time and cumulative lead time; excess and obsolete inventory; role of inventory control in the logistics process and organization; physical inventories and cycle counting; and scheduling techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 160
Operations Management
This course provides management and analytical concepts/tools for the management of operations and the decision-making process within the scope of the supply chain. Recently, operations strategy has provided companies with a competitive advantage in supply chains and transportation. Decision-making regarding operational issues is one of the most common tasks within organizations. This course will enable the student to perform the quantitative analysis necessary and understand the management issues in order to make good operational decisions within the supply chain. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 180
E-Commerce/E-Procurement
The purpose of this course is to provide the student with an understanding of the role of electronic commerce (e-commerce), electronic procurement (e-procurement), and their impact on supply chain management decision-making. This course is designed to provide the student with a historical perspective of the evolution of e-commerce, e-procurement and how they have affected the supply chain. Topics include a history of e-commerce, business to business (B2B) models, business to consumer (B2C) models, consumer to consumer (C2C) models as well as the role of Internet technologies in e-commerce. How the Internet has changed warehousing and transportation strategies and the way we conduct business in the supply chain. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 181
Demand Planning & Forecasting
Provides an introduction to customer demand forecasting, planning and studies the critical concept of closely balancing supply and demand using both quantitative and qualitative forecasting techniques. Topics covered include sales and operations planning (S&OP), market and business intelligence, demand shaping, trends, cycles, mitigating risk, collaborative planning, forecasting and replenishment (CPFR) processes, independent and dependent demand. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 182
Global Logistics
Provides a study of the supply chain management and logistics function related to the global environment including import/export, customs clearance, international legal considerations, global sourcing, financing, import duties and letters of credit. This course is designed to survey the impact of the emerging global market place on today's business environment. In particular, this course will integrate the concepts, theories, and evolving practices of global supply chains with today's marketplace. Topics include international terms of sale, impact of e-commerce on global strategies, international transportation carriers, documentation issues, global third-party providers, global sourcing, legal and ethical considerations.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Supply Chain Mgmt Logistics (SCML) 210
Inventory Control
Fundamental principles of inventory control. Inventory classification - raw materials, work-in-process, and finished goods. Using the 80/20 rule and ABC classifications. Importance of inventory record accuracy. Inventory turnover and other inventory measurements. Principles of Material Requirements Planning and MRP II. Inventory control systems. Internal and external lead time and cumulative lead time. Excess and obsolete inventory. Role of inventory control in the logistics process and organization. Physical inventories and cycle counting. Scheduling techniques. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: OH

Surgical Technology (SURG TC)

Surgical Technology (SURG TC) 105
Sterile Processing Basics
The course is designed to present an introduction to the central sterile processing setting and its relevant standards and protocols related to regulations, infection prevention, quality assurance, safety, risk management, communication, and professional practices. This course will illustrate the theories related to cleaning, disinfection, assembly, packaging, sterilization, storage, transportation of medical devices, Standard and Universal precautions, and event-related sterility. Additionally, in this course, students will learn ancillary support service skills in pursuant to entering the central sterile processing setting. Students will complete a cumulative review of the curriculum required to prepare for the Certified Registered Central Service Technician (CRCST) Examination delivered by the International Association of Healthcare Central Sterile Material Management (IAHCSMM). This course also highlights professional development and employability skills such as cover letter writing, resume writing and interview techniques. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, and Admission to Sterile Processing program
4 Laboratory hours. 5 Lecture hours. 7 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 106
SP Experiential Learning
In this course, instruction is delivered by faculty and onsite by a central sterile employee. Students will complete the essential duties that central sterile processing technicians are responsible for in the relative central sterile areas. The clinical hours offered in this course combined with minimal additional hours as a central sterile processing department volunteer or employee are necessary to fulfill the 400 hours of hands-on experience needed to apply to sit for the Certified Registered Central Service Technician (CRCST) Examination. This course is also designed to introduce basic and complex surgical instrumentation, as well as commonly used medical devices used in the patient care environment. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101, Admission into the Sterile Processing Program, & co-enrollment in SURG TC 105
25 Clinical hours. 2 Laboratory hours. 9 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 111
Intro To Surgical Technology
This course is designed to introduce students to the history and foundation of Surgical Technology, the legal and ethical responsibilities of healthcare professionals, and risk management. In addition, this course will explore the technological sciences, patient care related concepts, and professional role of Surgical Technologist. This course also examines various human diversity issues relating to the care of surgical patients. Age, death/ dying, disability status, ethnicity, gender, race, religion and economic status will all be examined. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, BIOLOGY 120, BIOLOGY 121, BIOLOGY 226, Any college level Math course (MATH 118 recommended), and ENGLISH 101: Composition Eligibility
2 Lecture hours. 2 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 112
Principles & Practice for STs
This course is designed to introduce students to the techniques and application of the principles and practices that are performed during the preoperative, intraoperative and postoperative phases of surgical interventions. Writing assignments, as appropriate to the discipline, are part of the course.
Admission to the Surgical Technology Program, BIOLOGY 120, BIOLOGY 121, BIOLOGY 226 , Any college level Math course (MATH 118 recommended), and ENGLISH 101 Composition Eligibility.
3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 113
Surgical Procedures I
This course is designed to introduce students to the preoperative, intraoperative, and postoperative considerations related to Diagnostic, General, Ob/Gyne, Genitourinary, and Otorhinolaryngology surgical procedures/ disciplines. The relevant surgical anatomy, physiology, pathophysiology, and diagnostic interventions as well as unique aspects and practices of these surgical disciplines will be examined. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, Completion of SURG TC 111, SURG TC 112, and BIOLOGY 227 with a grade of C or better and concurrent enrollment in SURG TC 114
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 114
Applied Surgical Procedures
This course is designed for students to begin to connect the knowledge of the principles and practices learned in Surg TC 112 to the creation and maintenance of the sterile field and preoperative preparation of the surgical patient. This course will cover the relevant surgical case management skills up to the TIME OUT portion of entry level mock surgical cases. Where possible, these mock surgical cases will reflect the surgical procedures taught concurrently with this course in Surg TC 113. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, Completion of SURG TC 111, SURG TC 112, and BIOLOGY 227 with a grade of C or better and concurrent enrollment in SURG TC 113
8 Laboratory hours. 4 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 116
Surgical Procedures II
This course is designed to introduce students to the preoperative, intraoperative, and postoperative considerations related to Endoscopy, Oral Maxillofacial, Plastic Reconstructions, Ophthalmic, and Orthopedic surgical disciplines. The relevant surgical anatomy, physiology, pathophysiology, and diagnostic interventions as well as unique aspects and practices of these surgical disciplines will be examined. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, Completion of SURG TC 113, SURG TC 114, and MCROBIO 233 with a grade of C or better and concurrent enrollment in SURG TC 118
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 118
Applied Surgical Procedures II
This course is designed to enable students to build upon the techniques learned and practiced in Surg TC 114. At this level, students will bring together the preoperative, intraoperative and postoperative surgical case management skills relevant to entry level mock surgical cases from Preoperative preparation of the surgical Patient through completion of the procedure, surgical wound management, and return of the operating room to its preoperative state. Where possible, these mock surgical cases will reflect the surgical procedures taught concurrently with this course in SURG TC 116. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, Completion of SURG TC 113, SURG TC 114, and MCROBIO 233 with a grade of C or better and concurrent enrollment in SURG TC 116
8 Laboratory hours. 3 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 210
Surgical Procedures III
In this course students are introduced to the preoperative, intraoperative, and postoperative considerations related to Pediatric, Trauma, Neuro, Peripheral Vascular, and Cardiovascular/ Thoracic surgical disciplines. The relevant surgical anatomy, physiology, pathophysiology, and diagnostic interventions as well as unique aspects and practices of these surgical disciplines will be examined. Writing assignments as appropriate to the discipline are part of the course.
Admission to the Surgical Technology Program, Completion of SURG TC 113, SURG TC 114, and MCROBIO 233 with a grade of C or better and concurrent enrollment in SURG TC 116
4 Lecture hours. 4 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 211
Surgical Intervention IV
A study of surgical procedures with emphasis on thoracic, vascular and cardiac surgery. There is also emphasis placed on resume writing, job placement, interviewing and negotiating in the job market. Review for the national exam. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in SURG TC 200.
1 Laboratory hours. 2 Lecture hours. 2 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 212
Clinical Experience I
This clinical course is designed for students to synthesize and apply the skills gained in the preceding surgical technology core curriculum courses under direct supervision of a preceptor, at their assigned clinical site. In this surgical setting, students will perform the sterile and nonsterile perioperative responsibilities of an entry level Surgical Technologist. Students may be assigned for a portion of this course in the sterile processing department, surgery department, endoscopy department, and labor and delivery department. Together with Surg TC 213 (Clinical Experience II), students are required to scrub a minimum of 120 cases. Clinical sites are located within 50-miles of the campus and are assigned by the Program Director and Clinical Coordinator based on the factors outlined in the clinical contract. Written assignments and clinical documentation appropriate to the discipline, are part of this course and due weekly. Students will also be expected to attend a one-hour conference with clinical instructors each week on campus as part of this course.
Admission to the Surgical Technology Program, Completion of SURG TC 116 and SURG TC 118 with a grade of C or better and concurrent enrollment in SURG TC 210 and SOC 201
24 Laboratory hours. 5 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 213
Clinical Experience II
In this course, students will apply the skills learned in the Surgical Technology curriculum under the direct supervision of preceptors at their assigned clinical site. In this hand-on training, students function in both nonsterile and sterile perioperative roles. Students may be assigned to sites where the sterile processing, labor and delivery, and/ or endoscopy departments will be a part of their rotation. In this Clinical Experience course, together with Surg TC 212, students are expected to scrub a minimum of 120 cases. In this course, students are expected to take a more independent role during surgical procedures as the course progresses. Clinical sites are located within a 50-mile radius of the campus. Written assignments and case documentation appropriate to the discipline, are part of this course.
Admission to the Surgical Technology Program, Completion of SURG TC 212 and SURG TC 210 with a grade of C or better, concurrent enrollment in SURG TC 210 and satisfactory completion of all required immunizations
32 Laboratory hours. 9 Credit Hours.
Offered At: MX

Surgical Technology (SURG TC) 215
Career Readiness for STs
This course will prepare Surgical Technology students for the National Board of Surgical Technologists and Surgical First Assistants and will include participation in the national board exam at the end of the course. Students will also develop resume building, interview skills, professional communication and oral presentation techniques.
Grade of C or better in SURG TC 212 and SURG TC 218, and concurrent enrollment in SURG TC 213
3 Lecture hours. 3 Credit Hours.
Offered At: MX

Technology 332 (332TECH)

Technology 332 (332TECH) 400
Scaffold Safety
General safety guidelines for constructing and dismantling scaffolds, including a review of local municipal and OSHA codes, rules and regulations. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 2 times

Technology 332 (332TECH) 401
Intro To Labor & Trade Occ
This course will provide the student with information about trades and crafts related training programs, unions, and working conditions. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 1-2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 406
Construction Materials/Methods
This course will provide the student with the information needed on construction materials and methods used in the construction of buildings. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 407
Quality Abatement Supervisor
This course emphasizes the supervisory responsibilities required to safely remove hazardous materials as asbestos and lead. The course will provide instruction on potential health effects, personal protective equipments and information on such hazardous materials as asbestos, lead and mold; removal practices and procedures and other related safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 408
Environmental Safety Worker
This course is designed to provide the student with the general knowledge for environment safety workers. It fulfills OSHA's requirements to perform class I and II work. Students will receive instruction on the potential health effects, personal protective equipment, background information on such hazardous materials as asbestos, lead, and mold; removal practices and procedures, and other safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 409
Construction Safety
This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. Emphasis will be placed upon those areas in construction that are most hazardous, using OSHA standards as a guide. Upon successful completion, students will be issued the OSHA construction safety and health 10-hour course completion card. Writing assignments, as appropriate to the discipline, are part of the course.
0.5-1 Lecture Hours. 1.5-3 Laboratory Hours. 1-2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 410
Interior Construction I
This course will provide the student with the opportunity to practice and master the task required for entry level carpentry positions. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 411
Interior Construction II
This course will provide the student the opportunity to practice and master the installation and the finishing techniques of interior carpentry, which are required for entry level employment as a carpentry apprentice. Particular attention will be given to the installation of finish trim, doors, windows, flooring, hardware, ceilings, counters, cabinets and the finishing of woodwork and trim. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 416
Exterior Construction I
This course will present material and methods used in various types of concrete forming for building construction. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 417
Exterior Construction II
This course will focus on rough framing and exterior walls, stairs, porches, decks, roofs and dormers. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 418
Exterior Construction III
This course focus in on installation of banisters, fascia, siding, windows, doors, screens, gutters, downspouts, roofing materials, and other exterior trim. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 419
Building Maintenance Math
Basic principles of math with application relative to building maintenance and repair. Course content include: fractions, decimals, percents, measurements, ratios and proportions. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 420
Carpentry Maintenance
Basic carpentry skills used in building maintenance and repair. Course content includes: tools, safety, materials, doors, windows, walls, ceiling, and interior trim. Writing assignments, as appropriate to the discipline are part of the course.
1 Lecture Hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 421
Electrical Maintenance
Basic electrical skills used in building maintenance and repair. Course content includes: troubleshooting, testing, repairing, and replacing faulty devices and controls. Use of electric test meters and devices will also be included. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture Hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 422
Plumbing Maintenance
Basic plumbing skills used in building maintenance and repair. Course content includes: troubleshooting, repairing, and replacing faulty plumbing and fixtures. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture Hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 424
Drywall & Interior Wood Trim
This course is designed to provide the student with the basic fundamentals of how to install drywall, apply tape and joint compound, sand to a smooth surface, as well as, install wood trim to baseboards, windows, and doors. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 425
Window and Door Installation
This course is designed to provide the student with the knowledge and skills required to install windows and doors. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 426
Intro To Concrete Masonry
This course provides an overview of concrete masonry trade, which includes the history and safety standards. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 427
Masonry Tools & Equipment
This course is designed to provide the student with an overview of the types of tools and equipment used in the concrete masonry industry. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH440
2 Lecture Hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 428
Mortar
This course is designed to introduce students to mortar applications. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 3 Laboratory Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 429
Basic Math & Specifications
This course is designee to teach basic applications of mathematics pertinent to the trade. Emphasis will be placed on actual measurements and calculations, different types of specifications used in the building industry as related to the trade. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 430
Masonry Installations Procedures
This course is designed to provide students the practical skills required to install masonry units. Writing assignments, as appropriate to the discipline, are part of the course.
C or better in 332TECH 440
1 Lecture Hours. 6 Laboratory Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 431
Specifications & Building Code
This course will enable the student to adhere to established local codes and laws governing construction and rehabilitation of buildings; measure and estimate costs of labor, time and materials; develop written proposals for specific projects. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 432
Basic Arc Welding
In this course, the student will concentrate and master basic welding skills and techniques. An overview of the safety rules and procedures will also be provided. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 434
Introduction To Plumbing
This course is designed to provide an overview of the plumbing trade which includes the history and safety and sanitation procedures. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 435
Plumbing Tools & Equipment
This course is designed to provide the student with an overview of the types of tools and equipment used in the plumbing trades. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 436
Plumbing Codes
This course is designed to introduce students to the regulations of Illinois Department of Public Health. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 437
Basic Plumbing Related Math
This course is designed to teach the basic application of mathematics pertinent to the plumbing industry. Emphasis will be placed on actual measurements and calculations of pipe and other fittings.
Grade of C or better in 332TECH 434
1 Lecture hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 438
Intro To Fire Protection
This course is designed to provide an overview of the fire protection and sprinkler trade. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 439
Home Plumbing System
This course is designed to provide an overview of the plumbing systems within a home. Those systems include: waste, vent and water piping. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 440
Introduction to Construction Masonry
This course is designed to provide students with an overview of the history of the concrete and brick masonry trades, which includes the history and safety standards. In addition, the types of tools and equipment used in the concrete and brick masonry industries will be examined. Writing assignments, as appropriate to the discipline, are part of the course.
Placement into ENGLISH 96 and MATH 98.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 441
Flooring/Floor Covering
This course will instruct the student in safety precautions for working with adhesives and mastic; safety operation of equipment, and installation of carpeting/padding, as well as the replacement of damaged tiles. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 445
Introduction to Electrical Theory
Offers a general introduction to Ohm's law, the National Electrical Code and general procedures. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 446
Foundations and Flatwork
This course is designed to teach basic forms for continuous, grade bean concrete footings including edge forms used for slabs and other structures. Theory and hands-on application are emphasized through the completion of the course. Writing assignments, as appropriate to the discipline, are part of the course.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 447
Materials
This course is designed to describe uses of work materials and grading systems. The course will also describe various kinds metals, fasteners, and adhesive used for roadwork carpentry. Theory and hands-on applications are emphasized through the completion of the course. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 448
Vocational Physical Training I
Vocational Physical Training focus on preparing students for the physical challenges that line worker careers require. Students learn the basic of nutrition and how what we eat fuels our bodies. Students will learn proper techniques to stretch, warm up and physically train. Emphasis is given to cardiovascular training as well as leg and upper body strength. Instructors work with students to overcome physical challenges and fears for basic pole climbing. Student must earn a "C" or better in course to advance to Vocational Physical Training II. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory Hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 449
Professional Development
This course is designed to provide the student with a basic understanding of the human relations skills necessary to obtain employment and succeed in a quality work environment. This course includes resume development, cover letter writing, job searching skills, networking skills, interviewing techniques, and post-interview skills. Additionally, this course helps students succeed while on the job by exposing students to current workplace trends, team building skills, customer and co-worker relations, attitude and motivation, stress management, and financial management and planning. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 1 times

Technology 332 (332TECH) 451
Plumbing
This course will enable the student to identify pipe fittings and standard plumbing symbols; install rough plumbing for bath and kitchen fixtures, and install water heating systems. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 452
Basic Electrical Theory
This class covers the theories behind basic electricity. The emphasis is on electron theory, magnetism, Ohm's Law, and circuitry. Alternating current concepts such as circuits with resistance, inductive and captive reactive circuits, and power factor correction are covered. Basic math skills are used. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 453
Overhead Techniques & Projects I
This first semester discusses basic electric system layout from generator to electrical user and focuses on practical tasks and working concepts associated with electrical line work. Aerial climbing is introduced and practiced; power line equipment is used. Overhead distribution line design, specifications, and construction are part of this class. In this class, students learn basic rope knots, guying and anchoring techniques, electrical connectors, hand tools, and power tools. Additionally, students learn about single phase underground distribution concepts and metering principles. Student must earn a "C" or better to advance to Overhead Techniques and Projects II. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in MATH 107, ENGLISH 197, 332TECH448-1 and 449.
3 Lecture Hours. 2 Laboratory Hours. 4 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 1 times

Technology 332 (332TECH) 458
Overhead Techniques & Projects II
In this second semester class, students learn about and use advanced levels of topics such as aerial climbing, rope knots and splices, electrical connectors, electrical test equipment, as well as hand and power tools. Students also learn basic hydraulic principles. Application and installation of various electrical apparatus in a lab environment is completed by the students. Overhead distribution structures are constructed, protective grounding is introduced and live line work such as rubber gloving and hot stick use (deenergized lines). Underground distribution (UD) equipment is introduced including cable terminating tools and cable locating equipment. Students will install and terminate UD cable, Three-phase concepts such as metering and UD are covered. The class covers varies component pieces of electrical distribution equipment. The class is introduced to current prospective devices including automatic throw overs, high voltage fuses, sectionalizers and oil current reclosers. Students learn to identify various type switches and are introduced to step-type voltage regulators. Students practice safety concepts common to line workers. Students also identify and read distribution maps. A trencher/cable plow, trucks and other mobile equipment are used by the student. The student must earn a C or better in this course. Writing assignments, as appropriate to the discipline are part of the course.
Grade of C or better in 332TECH 452 and 332TECH 453 and 462.
3 Lecture Hours. 2 Laboratory Hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 459
Construction Safety and Rescue
This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. The student will be provided specific instruction in Flagging and Cardiopulmonary Resuscitation (CPR). Emphasis will be placed upon those areas in construction that are the most hazardous, using OSHA standards as a guide. Upon completion, students will be issued the OSHA construction safety and health 10-hour course completion card. The student will be provided a basic knowledge of bucket truck and pole top rescue. Emphasis will be placed upon those areas in the electrical line worker profession. Student must earn a "C" or better in course to advance. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH 452, 453 and 462.
2 Lecture Hours. 2 Laboratory Hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 462
Vocational Physical Training II
Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training I. Students will learn how to select foods to provide optimum health and the best sources of energy. Students will learn how to read labels and how to use food to cleanse and maintain overall health. Students will build upon techniques for stretching, warming up and physical training. Student must earn a grade of C or better in course to advance to Vocational Physical Training III. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH 448.
2 Laboratory hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 463
Vocational Physical Training III
Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training II. Students will learn how to produce ideal body composition through food intake and how to balance other physical dimensions of self through physical activities. Students will learn advanced techniques to stretch, warm up and physically train. Student must earn a C or better to satisfy course and certificate completion. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH 462.
2 Laboratory hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 464
Power Equipment Operation I
This course provides instruction in preparation for obtaining a commercial driver's license. In addition, the class covers the operation and use of a variety of power equipment commonly used in the electric power industry including the use of bucket trucks, power take-off equipment, trailers, cable pullers and tensioners. Student must earn a grade of C or better in the course to advance. Writing assignments, as appropriate to the discpline, are part of the course.
Grade of C or better in MATH 107, ENGLISH 197, 332TECH 448-1 and 449.
1 Laboratory hours. 2 Lecture hours. 2.5 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 465
Painting & Decorating
In this course, the students will be provided with instruction in the preparation of surfaces, the selection, mixing, an application of paints, stains, varnishes, finishes, and wallpaper. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture Hours. 3-6 Laboratory Hours. 2-3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 466
Introduction to Painting
The course is designed to provide an overview of the painting and decorating trade, which includes the history of the industry, job ethics, and terminology utilized within the industry. Critical thinking employability skills will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 467
Introduction to Painting Tools
The course is designed to provide the student with an overview of the proper use and care of painting tools, equipment, selection, mixing, and application of materials used in painting. Emphasis will also be on safety practices and the storage and disposal of materials. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 468
Basic Taping
The course is designed to provide students with instruction in the preparation of surfaces of taping. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 469
Advance Plumbing/Pipefitting
This course offers students the opportunity to increase their skills and knowledge in the plumbing industry. Course material covered will include art of pipe sizing, print reading, fitting allowance, code review, thermodynamics/pipe connection above and below grade. A review of the proper procedure for solving offset problems will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH 434-1 or one year experience in the plumbing industry.
6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 470
Power Equipment Operations II
This course is a continuation of 330TECH 464 to provide instruction in preparation for obtaining a commercial driver's license. In addition, the class covers the operation and use of a variety of power equipment commonly used in the electric power industry including the use of bucket trucks. Power take-off equipment, trailers, cable pullers and tensioners. Students must earn a grade of C or better in the course to advance. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in Math 107, and English 197, and 332TECH 448, and 332TECH 449 and 332TECH 464.
1 Laboratory hours. 2 Lecture hours. 2.5 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 471
Exterior Repair & Remodeling
This course will instruct the student to remove and replace doors and windows; install exterior hardware; install weatherization, insulation and roofing materials. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 472
Vocational Physical Training
Vocational Physical Training prepares students for the physical challenges that construction and utility workers encounter in the field. Students learn the basics of nutrition and how our food fuels our bodies. Students will learn proper techniques to stretch, warm up and physically train. Emphasis is given to cardiovascular training as well as leg and upper body strength. Instructors work with students to overcome physical challenges. Writing assignments, as appropriate to the discipline, are part of the course. Students must earn a "C" or better in the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 4 times

Technology 332 (332TECH) 481
Interior Repair & Remodeling
This course will instruct students to make minor plaster repairs; install interior hardware; replace/repair damaged wood flooring, tile and other floor coverings; apply wallpaper, paints, and other coatings. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 491
Residential Electrical Wiring
This course will instruct students in writing of various electrical configurations commonly found in residential systems. Writing assignments, as appropriate to the discipline, are part of the course.
9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 503
Gas Utility Training I
Gas Utility Training I introduces students to the principles, processes, and sub-systems applicable to the safe construction and operation of natural gas distribution systems, for delivery of natural gas to end-use customers. Classroom and practical room training will ensure that students possess the necessary skills and knowledge to perform duties in an entry-level gas utility worker job classification. Writing assignments, as appropriate to the disciple, are part of the course.
Grade of C or better in 432CMGT 609 - Construction Safety II
3 Laboratory hours. 5 Lecture hours. 6 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 504
Gas Utility Training II
Gas Utility Training II is a continuation of the Gas Utility Training I. The course expands upon the principles, processes, and sub-systems applicable to the safe construction and operation of natural gas distribution systems relative to the construction of mains and services, pressure regulator and meter installation/removal, excavation damage prevention, lockout/tagout and shutdown processes, and safe appliance light-up procedures. It includes an introduction to joining methods for various pipe component materials, such as compression fittings for plastic and ferrous materials. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform duties in a secondary level gas utility worker job classification. Writing assignments, as appropriate to the disciple, are part of the course.
Grade of C or better in 332TECH 503-Gas Utility Training I
6 Laboratory hours. 4 Lecture hours. 6 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 505
Gas Utility Training III
This course provides students with knowledge of advanced processes for mains pipe facilities repair, installation, and abandonment. It also provides knowledge of advanced processes for service pipe work. Students also review the fundamentals of appliance light up and venting, and hazards associated with potential leak and ignition sources inside and outside of a structure. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform advanced duties associated with work on distribution piping systems by higher level gas utility worker job classifications. Writing assignments, as appropriate to the disciple, are part of the course.
Grade of C or better in 332TECH 504-Gas Utility Training II
3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 506
Gas Utility Training IV
This course provides students with knowledge of advanced processes for gas service activation and other end-use activities. This course also provides students with additional safety related details for carrying out certain activities covered in Gas Utility Training III. Theory of operation of Class 1 and Class 2 pressure regulators is also covered. Students will learn the principles of operation and diagnosis of operational problems and applicable NFGC code requirements on the broad scope of end-use appliances. Excavation and trenching safety is covered in detail. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform advanced duties associated with work on gas service activation and end-use appliances and systems by higher level gas utility worker job classifications. Writing assignments, as appropriate to the disciple, are part of the course.
Grade of C or better in 332TECH 505-Gas Utility Training III
3 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 509
Intro to Basic Arc Welding
This course will concentrate and master basic welding skills and techniques. An overview of the safety rules and procedures will also be provided. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 3-12 Laboratory Hours. 2-6 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 510
Blueprint, Layout, & Fabrication
Detail interpretation of welding print and fabrication, fabrication procedures as well as interpreting basic elements of a drawing or sketch. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 515
Related Mathematics I
This course is designed to provide to the student those mathematical tools most often needed to solve trade related problems. The instruction includes a review of whole numbers, fractions, decimal, powers, roots, ratios proportions and percentages. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 516
Related Mathematics II
Continuation of Mathematics I. Topics include elementary algebraic operations, geometry and an introduction into trigonometry. Writing assignments, as appropriate to the discipline, are part of the course.
4 Lecture hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 518
Manufacturing Materials & Processes
An introduction to manufacturing materials, methods, and processes for drafting and design technicians is provided. Basic cold and hot working processes, used to join, form, weld, shape and cut materials to specified sizes, are also taught. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture Hours. 1 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 520
Arc Welding
This course provides continued development of the basic skills for performing operations with mild steel plates. Student progress in welding from flat to vertical, down to horizontal, and to vertical up positions. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in 332TECH 509.
2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 526
Welding Mathematics I
This course gives a student a review of basic mathematics as it pertains to layout and blueprint reading. The course covers decimals, fractions, and converting whole inches to millimeters. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 Lecture Hours. 1-2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 530
Advanced Welding
In this course students will concentrate and master advanced welding skills and techniques. An overview of safety rules and procedures will also be given. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 581
Concrete Framing
This course will acquaint the student with industry terminology, the tools used in the trade, and safety procedures. Instruction and demonstration will introduce the student to the application of footings, foundation walls, and slab, and stair construction. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 582
Residential Carpentry
Training consists of an orientation into the field of carpentry, industry terminology, and the discipline and the uses of tools of the trade. Students will receive hands-on training in the recognition and application of the materials used in residential structures. Writing assignments, as appropriate to the discipline, are part of the course.
3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 583
Basic Hand Tools
This course is designed to introduce students to the operation and safe use of various types of hand tools. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 715
Intro to Hand and Power Tools
This course will enable the student to identify, maintain, and illustrate proper handling and care of the various hand and power tools. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture Hours. 6 Laboratory Hours. 1-3 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 767
Blueprint Reading I
Introduce students to construction blueprints and specifications. Emphasis on how to read and understand all types of working drawings used in the construction industry. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 768
Blueprint Reading II
Continuation of Blueprint Reading I. This course will further develop the student's ability to interpret drawings of intermediate and advanced complexity related to actual trade projects. Writing assignments, as appropriate to the discipline, are part of the course.
2 Lecture hours. 2 Credit Hours.
Offered At: KK

Technology 332 (332TECH) 769
Blueprint Reading III
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Theater Art (THR ART)

Theater Art (THR ART) 129
Intro To Theater History
Introduction to theater history from its origins to the present including theatrical styles and literature. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, TR, WR

Theater Art (THR ART) 130
Stagecraft
Introduces safety procedures and basic techniques of scenery and property construction, tool use, scene painting, and backstage organization. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, WR
IAI: TA 911

Theater Art (THR ART) 131
Intro To Theater
Introduction to Theater is a survey of theater, including basic elements and principles of production, styles, and historical perspectives of theater, dramatic literature, and criticism. Writing assignment, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, WR
IAI: F1 907 GE: Fine Arts

Theater Art (THR ART) 132
Theater Production, Direction & Management
Production and direction of plays; experience in play selection, theater organization, scheduling, audience analysis, box office and record keeping, and publicity. Writing assignments, as appropriate to the discipline, are part of the course.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: HW, KK, MX, TR, WR

Theater Art (THR ART) 133
Acting I
Acting techniques, stressing exercises, improvisations, prepared and general acting situations; theories of method and technical methods explained and presented; survey of acting styles. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, MX, OH, TR, WR
IAI: TA 914

Theater Art (THR ART) 134
Theater Diversity in the U.S.
Examination of various dramatic expressions that reflect the experience and construction of racial or cultural minority identity in the United States. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
3 Lecture hours. 3 Credit Hours.
Offered At: DA, HW, KK, OH, TR, WR
IAI: F1 907,F1 909D GE: Fine Arts HD Course

Theater Art (THR ART) 135
Theater and Special Projects
Special project permitting independent research and/or study, includes writing of a play or design and execution of a costume or a special and unusual unit of scenery. Not more than three hours of credit counted toward graduation. Writing assignments, as appropriate to the discipline, are part of the course.
1 Lecture hours. 1 Credit Hours.
Offered At: HW, KK

Theater Art (THR ART) 136
Stage Make-up
This course is an introduction to the basic techniques and philosophies concerning the effective application of theatrical makeup. The objective of the course is to give the student a practical, working knowledge of the principles of highlighting, shadowing, and contouring the human face with makeup in a workshop environment. Explorations into the basic techniques involved in working with crepe hair, and various three-dimensional processes shall also be undertaken.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK, OH, TR, WR

Theater Art (THR ART) 137
Stage Lighting
Comprehensive study of theory and technique of lighting for the theater; use of all instruments and dimming controls, work on sound in theater. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK, WR

Theater Art (THR ART) 138
Topics In Theatre
Special survey courses introducing employment opportunities and procedures in theatre. Writing assignments, as appropriate to the discipline, are part of the course. Course runs in a rotation of 3 topics. Courses may be repeated for a total of 3 credit hours.
1-3 Lecture Hours. 1-3 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 3 times

Theater Art (THR ART) 140
Sound For Theatre
Comprehensive Study of theory and technique of sound and sound engineering; use of all instruments amplification and recording equipment. Writing assignments as appropriate to discipline are part of the course.
Grade of C or better in MATH 118.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Theater Art (THR ART) 141
Costumes And Wardrobe
Introduces theory of costume design, focusing on safety procedures and basic techniques of costume and accessory construction, tool use, fitting and draping, and costume shop organization through projects in cutting, stitching, and finishing costumes for production. Writing assignments as appropriate to discipline are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Theater Art (THR ART) 143
Acting Workshop
Practical workshop in performance styles, stage techniques, timing, scene study and improvisations; students will cooperate in class-produced one-act plays. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: HW, KK

Theater Art (THR ART) 144
Practice In Modern Theater
Workshop in production of modern plays; readers theater methods will be used in total concept of modern theater production; less emphasis on detail than in Theater Art 143. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Theater Art (THR ART) 225
Independent Internship Assignment
A course of planned and supervised training that allows the application of theory to actual practice, preparing a student for working independently toward specific career objectives. It takes place at a regular theatre related worksite and instructions/supervision is provided by an employee at the worksite. Students may receive regular pay scale if allowed and if available. Course includes on-campus one-hour weekly seminar. Writing assignments as appropriate to discipline are part of the course. Allowed Repeatable Course: Not more than an accumulated 12 credit hours will be counted toward graduation.
Consent of Department Chairperson.
1-2 Lecture Hours. 10-20 Laboratory Hours. 3-6 Credit Hours.
Offered At: KK
Repeatable: Yes, up to 3 times

Theater Art (THR ART) 230
Stage Management
Practice in stage management. Students will work with scenes and plays as a stage manager, will operate special sound effects and recording equipment, and will make a complete sound track for a play. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in THR ART 131, or Consent of Department Chairperson.
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: KK, WR

Theater Art (THR ART) 232
Theater Workshop
Participation in production of one-act and full length plays with class, operated as a theater company; students will work in all phases of theater including touring theater, acting, directing, and other areas of theater as a full company experience. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK, TR

Theater Art (THR ART) 233
Theater Design
Scene design including preparation of plans, scale models and ground plans; history of design; project: full design for play currently produced in the theater. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, WR

Theater Art (THR ART) 235
Acting II
A continuation of Acting I with an emphasis on an intensive approach to acting exercises, improvisation and scene study. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in THR ART 133 or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, OH, TR, WR

Theater Art (THR ART) 236
Voice And Movement
The study of using voice and movement to interpret and perform works of literature, such as essays, letters, novels, poetry, and short stories, with an emphasis on communicating that interpretation to an audience. Writing assignments as appropriate to discipline are part of the course.
Grade of C or better in (THR ART 133 or THR ART 134).
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Theater Art (THR ART) 237
Theatre Production & Management
Production and management of plays and theatres; survey of theatre and production organization, scheduling audience analysis, box office operation, record keeping and publicity. Writing assignments as appropriate to discipline are part of the course.
Grade of C or better in MATH 118 and THR ART 230, or Consent of Department Chairperson.
2 Laboratory hours. 3 Lecture hours. 4 Credit Hours.
Offered At: KK

Theater Art (THR ART) 240
Play Production
A literary exploration of the relationships between dramatic text and the play in performance, with special emphasis on basic terminology and methodology. Representative plays are studied in their genre using historical and social contexts. Creation of a collaborative production, including performance and directing. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK, OH

Theater Art (THR ART) 242
Improvisational Theater Workshop
Theory and practice of improvisational acting techniques; development of scripting in the moment, development of character and styles; designing and performing an improvisational show. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: HW, KK, TR, WR

Theater Art (THR ART) 252
Children's Theater Workshop
The students will participate in a production of a play for children. The class will operate as a theater company and students will work in all phases of theater including acting, directing, stage managing and producing as a full company experience. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: WR

Zoology (ZOOLOGY)

Zoology (ZOOLOGY) 211
General Zoology
Fundamental principles of animal morphology, physiology, genetics, and ecology. Writing assignments, as appropriate to the discipline, are part of the course.
Eligibility for ENGLISH 101 based on prior coursework or appropriate score on Placement Test; or Consent of Department Chair
4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.
Offered At: OH, TR
GE: Life Sciences

ADDENDUM

Changes made to academic catalog during the 2025-2026 academic year

Item	Change Description	Date of Update - Effective Term
Master Builder, AC	New program for KK (https://nextcatalog.ccc.edu/academic-program-requirements/master-builder-advanced-certificate/)	05/20/2025 - Fall 2025
Urban Agriculture, BC	New Program for OH (https://nextcatalog.ccc.edu/academic-program-requirements/urban-agriculture-basic-certificate/#text)	08/28/2025 - Fall 2025

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