

PROGRAMS OF STUDY

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Architecture and Construction

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

AIR CONDITIONING & REFRIGERATION 117

*Associate in Applied Science Degree (A.A.S.)
62 Credit Hours (CH)*

The A.A.S. 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 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.

General Education 15 CH

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

Required Program Core 40 CH

Air Conditioning (094)

101 Introduction Air Conditioning I	3
102 Introduction Air Conditioning II	3
103 Duct Design and Layout	3
104 Equipment and Systems Controls	3
105 Owner-Contractor Management	3
120 Introductory Laboratory	2
150 Introduction to Refrigeration	3
151 Commercial Refrigeration	3
155 Refrigeration Laboratory	2
158 Commercial Refrigeration Laboratory	2
160 Introduction to Principles of Heating	3
165 Heating Laboratory	2

Engineering (034)

115 Engineering Communications Blueprint Reading	3
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Mathematics (045)

107 Mathematics for Technicians I or advanced Mathematics course	5
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Electives (minimum) 7 CH

Recommended Air Conditioning courses:

Air Conditioning (094)

106 Sheet Metal I (3)	
107 Welding I (3)	
121 Advanced Laboratory (2)	
156 Domestic Refrigeration Laboratory (2)	
204 Advanced Control Systems (3)	

TOTAL PROGRAM MINIMUM CREDIT HOURS 62 CH

AIR CONDITIONING & REFRIGERATION 118

Advanced Certificate (A.C.) 36 Credit Hours (CH)

Required Program Core 36 CH

Air Conditioning (094)

101 Introduction Air Conditioning I	3
102 Introduction Air Conditioning II	3
103 Duct Design and Layout	3
104 Equipment and Systems Controls	3
120 Introductory Laboratory	2
150 Introduction to Refrigeration	3
151 Commercial Refrigeration	3
155 Refrigeration Laboratory	2
158 Commercial Refrigeration Laboratory	2
160 Introduction to Principles of Heating	3
165 Heating Laboratory	2

Engineering (034)

115 Engineering Communications - Blueprint Reading	3
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Mathematics (045)

107 Mathematics for Technicians	4
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TOTAL PROGRAM MINIMUM CREDIT HOURS 36 CH

AIR CONDITIONING – COMMERCIAL REFRIGERATION 153

Basic Certificate (B.C.) 17 Credit Hours (CH)

Required Program Core 17 CH

Air Conditioning (094)

102 Introduction Air Conditioning II	3
105 Owner-Contractor Management	3
151 Commercial Refrigeration	3
157 Analysis Laboratory	2
158 Commercial Refrigeration Laboratory	2

Mathematics (045)

107 Mathematics for Technicians	4
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TOTAL PROGRAM MINIMUM CREDIT HOURS 17 CH

AIR CONDITIONING – DOMESTIC REFRIGERATION 177

Basic Certificate (B.C.) 17 Credit Hours (CH)

Required Program Core 17 CH

Air Conditioning (094)

101 Introduction Air Conditioning I	3
102 Introduction Air Conditioning II	3
120 Introductory Laboratory	2
150 Introduction to Refrigeration	3
155 Refrigeration Laboratory	2

Mathematics (045)

107 Mathematics for Technicians	4
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TOTAL PROGRAM MINIMUM CREDIT HOURS 17 CH

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

AIR CONDITIONING – HEATING 178

Basic Certificate (B.C.) 18 Credit Hours (CH)

Required Program Core	18 CH	
Air Conditioning (094)		
101 Introduction Air Conditioning I	3	
103 Duct Design and Layout	3	
105 Owner-Contractor Management	3	
160 Introduction to Principles of Heating	3	
165 Heating Laboratory	2	
Mathematics (045)		
107 Mathematics for Technicians	4	
TOTAL PROGRAM MINIMUM CREDIT HOURS	18 CH	

ARCHITECTURAL DRAFTING 122

Associate in Applied Science degree (A.A.S.)

63 Credit Hours (CH)

This program studies techniques necessary to produce working drawings by which a building is constructed or remodeled. Completion of this program leads to employment as a draftsman or detailer in architecture or design firms or contractors, material suppliers or construction related companies. Study may include Computer Aided Design or Drafting.

General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

Required Program Core	21 CH	
Architecture (005)		
121 Architectural Drawing I	4	
122 Architectural Drawing II	4	
123 Architectural Drawing III	4	
166 Concepts of Planning	5	
202 General Construction	4	
Additional Required Program Core	25 CH	
Architecture (005)		
170 Computer Aided Design I for Architectural Drafting Techniques	3	
171 Computer Aided Design II for Architectural Drafting Techniques	3	
172 Computer Aided Design III for Architectural Drafting Techniques	3	
204 General Construction Advanced	4	
266 Architectural Planning	5	
Art (010)		
Any drawing course	2-3	
Mathematics (045)		
143 Pre-Calculus or other Math course(s) recommended by a college Academic Advisor	5-6	
ELECTIVES	2-3 CH	
TOTAL PROGRAM MINIMUM CREDIT HOURS	63 CH	

ARCHITECTURAL DRAFTING 124

Basic Certificate (B.C.) 16 Credit Hours (CH)

Required Program Core	16 CH
Architecture (005)	
121 Architectural Drawing I	4
122 Architectural Drawing II	4
202 General Construction	4
204 General Construction Advanced	4
TOTAL PROGRAM MINIMUM CREDIT HOURS	16 CH

ARCHITECTURAL CAD 132

Basic Certificate (B.C.) 9 Credit Hours (CH)

A Basic Certificate program in Architecture, CAD is awarded to students upon completion of the required program courses.

Note: Also, see Mechanical Technology CAD 163 Basic Certificate (9 Credit Hours). This certificate is the same as Architectural CAD 132 above with the exception that the courses are Mechanical Technology (049).

Required Program Core	9 CH
Architecture (005)	
170 Computer Aided Design I for Architectural Drafting Techniques	3
171 Computer Aided Design II for Architectural Drafting Techniques	3
172 Computer Aided Design III for Architectural Drafting Techniques	3
TOTAL PROGRAM MINIMUM CREDIT HOURS	9 CH

BRICKLAYER 760

Basic Certificate (B.C.) 16 Credit Hours (CH)

The Bricklayer program is designed to provide students with a basic understanding of the bricklaying trade. Students will receive hands-on training in the building of solid walls and chimneys, using bricks and block and a range of bonds. Students will also learn basic blueprint reading.

Required Program Core	16 CH
332TECH	
442 Introduction to Bricklaying	3
443 Bricklaying Tools and Equipment	2
428 Mortar	3
429 Basic Mathematics and Specifications	2
444 Bricklaying Installation Procedures	3
767 Blueprint Reading	2
330BSCM	
532 Basic Computer Technology	1
TOTAL PROGRAM MINIMUM CREDIT HOURS	16 CH

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

BUILDING ENERGY TECHNOLOGIES 159

Basic Certificate (B.C.) 21 Credit Hours (CH)

The Building Energy Technologies program offers an occupational certificate to students seeking expertise in the practical application of energy efficiency and renewable energy systems in the building construction industries. Those with interest in building operation and assessment, the construction trades, contracting, energy consulting, and related occupations will obtain the knowledge to plan, implement, audit, operate, and optimize energy systems within a wide range of new and retrofit building types. An emphasis on integration into traditional building construction and operation allows the graduate to effectively coordinate with architects, engineers, and contractors on the installation and operation of those systems.

Required Program Core	21 CH
Environment Technology (027)	
104 Energy Systems Fundamentals	3
114 Renewable Energy Systems	4
144 Building Systems Maintenance	4
204 Residential Energy Systems	3
214 Institutional Energy Systems	3
244 Energy Equipment Troubleshooting	4
TOTAL PROGRAM MINIMUM CREDIT HOURS	21 CH

CAD TECHNOLOGY 144

*Associate in Applied Science degree (A.A.S.)
60 Credit Hours (CH)*

The Computer-Aided Design (CAD) Technology Program 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. Emphasis is placed on the training of computer-aided design (CAD) techniques.

General Education	17 CH
CIS (032)	
120 Introduction to Microcomputers	3
English (035)	
101 Composition I	3
Humanities/Social Science	3
Math (045)	
140 College Algebra	4
Physics (077)	
231 General Physics I: Mechanics & Wave Motion	4
<i>See page 51 for A.A.S. general education degree requirements.</i>	
Required Program Core	43 CH
CIS (032)	
103 Intro to BASIC Language	3
116 Intro to Operating Systems	3
123 Intro to Spreadsheets on Microcomputers	3
Engineering (034)	
100 Elements of Engineering Drawing	3
110 Introductory Drafting	2
111 Intro to the Engineering Profession	2
131 Engineering Graphics and Intro to Design	3
132 Descriptive Geometry	3
190 Computer Applications in Engineering	3
202 Advanced Drafting and Basic Machine Design	3
Mathematics (045)	
141 Plane Trigonometry	3
Mechanical Technology (049)	
130 CAD Technology I	3
170 CAD Technology II	3
171 CAD Technology III	3
172 CAD Technology IV	3
TOTAL PROGRAM MINIMUM CREDIT HOURS	60 CH

Note: This program was formerly known as Drafting and Machine Design 144.

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

CAD TECHNOLOGY 138

Advanced Certificate (A.C.) 34 Credit Hours (CH)

Required Program Core

Engineering (034)

- 100 Elements of Engineering Drawing 3
- 131 Engineering Graphics and Intro to Design 3
- 132 Descriptive Geometry 3
- 190 Computer Applications in Engineering 3
- 202 Advanced Drafting and Basic Machine Design 3

Mathematics (045)

- 140 College Algebra 4
- 141 Plane Trigonometry 3

Mechanical Technology (049)

- 130 CAD Technology I 3
- 170 CAD Technology II 3
- 171 CAD Technology III 3
- 172 CAD Technology IV 3

TOTAL PROGRAM MINIMUM CREDIT HOURS 34 CH

Note: This program was formerly known as Drafting and Machine Design 138.

CAD TECHNOLOGY 139

Basic Certificate (B.C.) 16 Credit Hours (CH)

Required Program Core

Mathematics (045)

- 140 College Algebra or 4

Cooperative Work Experience (108)

- 208 Engineering and Industrial Technologies

Mechanical Technology (049)

- 130 CAD Technology I 3
- 170 CAD Technology II 3
- 171 CAD Technology III 3
- 172 CAD Technology IV 3

TOTAL PROGRAM MINIMUM CREDIT HOURS 16 CH

Note: This program was formerly known as Drafting and Machine Design 139.

CARPENTRY 780

Advanced Certificate (A.C.) 37 Credit Hours (CH)

34 CH This certificate program will provide students with hands-on practical training in the area of carpentry and will include instruction in the safe operation and maintenance of all tools and equipment.

Required Program Core

332TECH

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|--|--------------|
| | 37 CH |
| 406 Construction Materials & Methods | 2 |
| 410 Interior Construction I | 4 |
| 411 Interior Construction II | 4 |
| 416 Exterior Construction I | 4 |
| 417 Exterior Construction II | 4 |
| 418 Exterior Construction III | 4 |
| 432 Basic Arc Welding | 1 |
| 515 Related Mathematics I | 4 |
| 516 Related Mathematics II | 4 |
| 715 Introduction to Hand and Power Tools | 2 |
| 767 Blueprint Reading | 2 |
| 768 Blueprint Reading II | 2 |

TOTAL PROGRAM MINIMUM CREDIT HOURS 37 CH

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

COMMUNICATIONS TECHNOLOGY 750

*Associate in Applied Science degree (A.A.S.)
65 Credit Hours (CH)*

The Communications Technology A.A.S. degree 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 Chicago land 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.

Daley College and the EJATT are working cooperatively in order to structure the program to benefit the students in meeting their educational and career objectives while maintaining the integrity and quality of the program. Selection for admission into the program is a rigorous process which functions to ensure that the most qualified candidates are selected by both the City Colleges of Chicago and the selection process established by the EJATT Local Union 134, which follows the guidelines of federal and state laws regulating admission into a registered apprenticeship program.

1. Graduation from an accredited high school or 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.
2. At least 18 years old, prior to application.
3. Have taken two semesters of algebra (at high school or college) with a minimum of "C" grade in each semester, completed prior to application. An official transcript is required.
4. Have acceptable physical health as determined by a physician to be able to safely perform the tasks of a construction electrician, including drug testing.
5. Have evidence of a qualifying grade on an aptitude test as prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Each student must achieve a minimum grade of C for all courses required to complete the degree. An overall grade point average of 2.0 or better must be maintained.

General Education **15 CH**

English (035)	
101 Composition	3
History (085)	
113 U.S. Labor History	3
Psychology (087)	
206 Business & Industrial Psychology	3
210 Principles of Supervisory Psychology	3
432 IBEW	
714 Technical Math I	3

Required Program Core **50 CH**

432 IBEW	
704 Construction Technology	4.5
705 Print Reading I	3.5
707 Fire Alarm Systems	3.5
709 Print Reading II	3.0
711 Communications	4.0
715 Technical Math II	3.0
716 Electronics	4.5
717 Structured Wiring	4.5
718 Integrated System I	3.5
719 Integrated Systems II	4.5
720 Communications Systems Verification	3.5
721 Fiber Optics	3.5
722 Computer Networking	4.5

TOTAL PROGRAM MINIMUM CREDIT HOURS **65 CH**

CONCRETE MASONRY 759

Basic Certificate (B.C.) 16 Credit Hours (CH)

Training consists of an orientation to the cement masonry trade, industry terminology, and blueprint reading. Hands-on training includes the proper use and maintenance of tools, job safety procedures, and how to build a sandbox. Students will learn the basic ingredients of concrete, rodding placement and floating, basic set-up and form work, and clean-up.

Required Program Core **16 CH**

332 TECH	
426 Introduction to Concrete Masonry	3
427 Masonry Tools and Equipment	2
428 Mortar	3
429 Basic Mathematics and Specifications	2
430 Masonry Installations Procedures	3
767 Blueprint Reading	2
330 BSCM	
532 Basic Computer Technology	1

TOTAL PROGRAM MINIMUM CREDIT HOURS **16 CH**

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

CONSTRUCTION CARPENTRY 775

Basic Certificate (B.C.) 16 Credit Hours (CH)

The objective of the Construction Carpentry Program is to prepare the student for an entry level apprentice position with a construction contractor. This one semester 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 10-hour Certification and Scaffold Certification upon successful completion of the certificate program.

Required Program Core

16 CH

332TECH

401 Introduction to Labor and Trade Occupations 2

409 Construction Safety 1

429 Basic Mathematics and Specifications 2

432 Basic ARC Welding 1

448 Vocational Physical Training I 1

581 Concrete Framing 2

582 Residential Carpentry 2

583 Basic Hand Tools 2

767 Blueprint Reading I 2

330BSCM

532 Basic Computer Technology 1

TOTAL PROGRAM MINIMUM CREDIT HOURS 16 CH

CONSTRUCTION MANAGEMENT 375

*Associate in Applied Science degree (A.A.S.)
65 Credit Hours (CH)*

The Construction Management program is a sixty-five credit hour program that leads to an Associate in Applied Science degree in Construction Management. Students 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.

General Education

15 CH

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

Required Program Core

41 CH

Business (030)

181 Financial Accounting 4

269 Principles of Management 3

CIS (032)

120 Introduction to Microcomputers 3

432CMGT

601 Introduction to Construction 2

602 Methods of Building Construction 3

603 Building Materials and Testing 3

604 Blueprint and Specifications 3

605 Construction Cost Estimating 3

606 Construction Contracting Specifications 3

607 Construction Scheduling/Management 3

608 Project Management 3

609 Construction Safety II 3

English (035)

107 Report Writing 3

332TECH

449 Professional Development 2

ELECTIVES

9 CH

Consult with a college Academic Advisor for selection of a minimum of three courses from the following disciplines: Business, CIS, Construction Technology and Environmental Science.

TOTAL PROGRAM MINIMUM CREDIT HOURS 65 CH

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

CONSTRUCTION PAINTER 768

Basic Certificate (B.C) 16 Credit Hours (CH)

Students will learn the basic painting techniques and practices currently used in the industry. Program content includes safe and efficient work practices; drywall taping; paint mixing and matching; application procedures; math; and the use, selection, application, and care of materials and tools. Students will also learn basic computer skills and employability skills. Graduates of the program will be prepared to work as a painter helper, painter, or drywall tapper.

Required Program Core 16 CH

332TECH

409 Construction Safety	1
448 Vocational Physical Training I	1
449 Professional Development	2
465 Painting and Decorating	2
466 Introduction to Painting	2
467 Introduction to Painting Tools	2
468 Basic Taping	2

330BSCM

532 Basic Computer Technology	1
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Mathematics (045)

107 Math for Technicians I	3
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TOTAL PROGRAM MINIMUM CREDIT HOURS 16 CH

ELECTRICAL CONSTRUCTION TECHNOLOGY 752

Associate in Applied Science degree (A.A.S.)

65 Credit Hours (CH)

The Electrical Construction Technology A.A.S. degree 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 Chicago land 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.

Daley College and the EJATT are working cooperatively in order to structure the program to benefit the students in meeting their educational and career objectives while maintaining integrity and quality within the program. Selection for admission into the program is a rigorous process which functions to ensure that the most qualified candidates are selected by both the City Colleges of Chicago and the selection process established by the EJATT Local Union 134 which follows the guidelines of federal and state laws regulating admission into a registered apprenticeship program.

1. Graduation from an accredited high school or 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.
2. At least 18 years old, prior to application.
3. Have taken two semesters of algebra (at high school or college) with a minimum of "C" grade in each semester, completed prior to application. An official transcript is required.
4. Have acceptable physical health as determined by a physician to be able to safely perform the tasks of a construction electrician, including drug testing.
5. Have evidence of a qualifying grade on an aptitude test as prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Each student must achieve a minimum grade of C for all courses required to complete the degree. An overall grade point average of 2.0 or better must be maintained.

General Education 15 CH

English (035)

101 Composition	3
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History (085)

113 U.S. Labor History	3
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Psychology (087)

206 Business & Industrial Psychology	3
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210 Principles of Supervisory Psychology	3
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432IBEW

714 Technical Math I	3
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Required Program Core 50 CH

432IBEW

702 Electrical Circuitry	4.5
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703 Conduit Bending I	3.5
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704 Construction Technology	4.5
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705 Print Reading I	3.5
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706 Conduit Bending II	3.5
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707 Fire Alarm Systems	3.5
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708 Motor Control Systems	3.5
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709 Print Reading II	3.0
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710 Programmable Control	4.5
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711 Communications	4.0
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712 H.V.A.C. Systems	4.5
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713 Instrumentation	4.5
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715 Technical Math II	3.0
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TOTAL PROGRAM MINIMUM CREDIT HOURS 65 CH

PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

ELECTRICAL LINE WORKER (OVERHEAD) 766

Advanced Certificate (A.C.) 30 Credit Hours (CH)

The Overhead Electrical Line Worker program is structured to meet the current need for overhead electricians/electrical line workers in the electrical power industry. Upon completion, students who graduate from this program will be prepared to work as apprentices in the electric utility industry.

Required Program Core	30 CH
332TECH	
448 Vocational Physical Training I	1
449 Professional Development	2
452 Basic Electrical Theory	3
453 Overhead Techniques & Projects I	4
458 Overhead Techniques & Projects II	4
459 Construction Safety & Rescue	3
462 Vocational Physical Training II	1
463 Vocational Physical Training III	1
464 Power Equipment Operation	5
English (035)	
197 Communication Skills	3
Mathematics (045)	
107 Technical Math	3
TOTAL PROGRAM MINIMUM CREDIT HOURS	30 CH

MECHANICAL TECHNOLOGY CAD 163

Basic Certificate (B.C.) 9 Credit Hours (CH)

A Basic Certificate in Mechanical Technology, CAD is awarded to students upon completion of the required program courses.

Note: Also, see Architectural CAD 132 Basic Certificate (9 Credit Hours). This certificate is the same as Mechanical Technology CAD above, with the exception that the courses are Architecture (005).

Required Program Core	9 CH
Mechanical Technology (049)	
170 CAD Technology II	3
171 CAD Technology III	3
172 CAD Technology IV	3
TOTAL PROGRAM MINIMUM CREDIT HOURS	9 CH

PLUMBING AND FIRE PROTECTION 753

Basic Certificate (B.C.) 16 Credit Hours (CH)

The Plumbing and Fire Protection program is designed to introduce students to plumbing and sprinkler systems. Students will be taught in the classroom and shop environment, with theory and hands-on applications. Upon successful completion of this program, the student will be qualified to work as a plumber's assistant and/or fitter assistant.

Required Program Core	16 CH
332TECH	
434 Introduction to Plumbing	3
435 Plumbing Tools and Equipment	2
436 Plumbing Codes	1
437 Basic Plumbing Related Mathematics	1
438 Introduction to Fire Protection	3
439 Home Plumbing Systems	4
432 Basic ARC Welding	1
330BSCM	
532 Basic Computer Technology	1
TOTAL PROGRAM CREDIT HOURS	16 CH

WELDER (COMBINATION) 758

Basic Certificate (B.C.) 16 Credit Hours (CH)

The Combination Welder program 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.

Required Program Core	16 CH
332TECH	
509 Intro to Basic ARC Welding	3
510 Blueprint, Layout and Fabrication	2
518 Manufacturing Materials & Processes	1
520 ARC Welding	4
526 Welding Mathematics I	1
530 Advanced Welding	4
330BSCM	
532 Basic Computer Technology	1
TOTAL PROGRAM MINIMUM CREDIT HOURS	16 CH