

PROGRAMS OF STUDY

BACCALAUREATE TRANSFER – ASSOCIATE IN ENGINEERING SCIENCE

ASSOCIATE IN ENGINEERING SCIENCE 100 (A.E.S.) 64 Credit Hours (CH)

The Associate in Engineering Science (A.E.S.) degree offers courses required for transfer to a four-year college or university for students majoring in engineering sciences. Completion of the A.E.S. 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 she/he transfers.

I. GENERAL EDUCATION* (minimum) 20 CH

A. COMMUNICATIONS 3 CH
English 101: Composition I

B. FINE ARTS AND HUMANITIES** *** 6 CH
Select any two courses from the following disciplines:
Afro-American Studies, Art, Fine Arts, Foreign Language, Humanities, Literature, Music, Philosophy, Religion, Theater Art

C. MATHEMATICS AND SCIENCE*** 6 - 8 CH
Select any two courses from the following disciplines:
Astronomy, Biology, Botany, Chemistry, Geology, Mathematics, Oceanography, Physical Science, Physics, Zoology

D. SOCIAL AND BEHAVIORAL SCIENCES** *** 6 CH
Select any two courses from the following disciplines:
Anthropology, Economics, Geography, History, Political Science, Psychology, Social Science, Sociology

II. REQUIRED PROGRAM CORE*** 44 CH

Chemistry (073)
201 General Chemistry I 5
Engineering (034)
190 Computer Applications in Engineering 3
Mathematics (045)
207, 208, and 209 Calculus and 15
Analytical Geometry I, II, III
210 Differential Equations 3
Physics (077)
215 Statics 3
216 Dynamics 3
235 Engineering Physics I Mechanics & Wave Motion 4
236 Engineering Physics II Electricity & Magnetism 4
237 Engineering Physics III Heat Light 4
& Modern Physics

TOTAL PROGRAM MINIMUM CREDIT HOURS 64 CH

III. ELECTIVES***

(Additional courses recommended for various fields of engineering.)

CAD Technology (049)
170 Computer Aided Design I (CAD) (3)
Chemistry (073)
203 General Chemistry II (5)
Engineering (034)
111 Introduction to Engineering Profession (2)
131 Engineering Graphics & Introduction to Design (3)
Physics (077)
217 Mechanics of Materials (3)
224 Physics Calculations and Practice (2)

* The courses listed under General Education are transferable courses either through IAI approval, signed form 13 articulation agreements, or they satisfy equivalency status in compliance with ICCB guidelines.

***Human Diversity Requirement:* At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations "D" or "N".

The "D" designation represents courses designed specifically to examine aspects of human diversity within the United States;

The "N" designated courses are designed specifically to examine aspects of human diversity from a non-U.S./non-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.

<http://ittransfer.org/iai/gened/Default.aspx?section=students&p=h>

<http://ittransfer.org/iai/gened/Default.aspx?section=students&p=s>

Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.E.S. model under Humanities/Fine Arts, and Social/Behavioral Sciences.

*** Some courses may not be offered every semester. Thus, students should select their courses with consultation from an Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at <http://www.ccc.edu>.