



Associate in Engineering

PRE-ENGINEERING

This program will prepare you for a bachelor's degree in engineering. You will obtain both a general background in mathematics and the physical sciences, and an introduction to the concepts and methods of engineering. This program is not a professional degree and does not prepare you for specific job opportunities. It does, however, provide a broad educational foundation on which to build a career through additional education or work experience.

The program objectives are the following:

1. Graduates will have demonstrated knowledge and skills to pursue an engineering bachelor program.
2. Graduates will have demonstrated involvement in high-level technical roles.

Completion of this program should result in the following student outcomes:

1. An ability to apply knowledge of mathematics, science, and engineering
2. An ability to function on multidisciplinary teams
3. An ability to communicate effectively
4. The broad education necessary for understanding the impact of engineering solutions in a global, economic, environmental, and societal context
5. Knowledge of contemporary issues
6. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

GENERAL EDUCATION (38 CR)

Area I. Communications (9 cr)

ENG	111	English Composition I (3)
ENG	116	Technical Writing (3)
SPCH	130	Public Speaking (3)

Area II. Mathematics (12 cr)

ENGR	120L	Introductory Mathematics for Engineering Applications (4)
MATH	162E	Calculus I (4)
MATH	163E	Calculus II (4)

Area III. Laboratory Sciences (8 cr)

PHYS	215/L	Engineering Physics I with lab (4)
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Select one class from the following list:

PHYS	216/L	Engineering Physics II with lab (4)
CHEM	121/L	General Chemistry with lab (4)
Other Science Class with the approval of the advisor (4)		

Area IV. Social/Behavioral Sciences (3 cr)

Select one class from the following list:

ECON	201	Microeconomics (3)
ECON	200	Macroeconomics (3)

Area V. Humanities and Fine Arts (3 cr)

Elective (3)

Choose electives from Gen Ed Area IV on page 27.

Area VI. First Year Experience (3 cr)

FYE 101 First Year Experience (3)

PROGRAM REQUIREMENTS (22 CR)

Engineering (22 cr)

ENGR 110L Introduction to Engineering (2)
EECE 152L Computer Programming I (3)
DRFT 100 Computer Aided Drafting I (4)
MET 201 Applied Mechanics (3)
EET 200 Electrical Systems I (3)
EET 200L Electrical Systems Lab (1)
Engineering/Technical Elective (6)

TOTAL CREDITS: 60

SUGGESTED SEQUENCE OF COURSES

First Semester (16 crs)

ENGR 120 Introductory Mathematics for Engineering Applications (4)
DRFT 100 Computer Aided Drafting I (4)
ENGR 110 Introduction to Engineering (2)
Engineering/Technical Elective (3)
FYE 101 First year Experience (3)

Second Semester (15 crs)

EECE 152L Computer Programming I (3)
ENG 111 English Composition I (3)
Engineering/Technical Elective (3)
HFA Elective (3)
ECON 201/200 Microeconomics or Macroeconomics (3)

Third Semester (15 crs)

MATH 162E Calculus I (4)
PHYS 215/L Engineering Physics I with Lab (4)
SPCH 130 Public Speaking (3)
EET 200 Electrical Systems I (3)
EET 200L Electrical Systems I Lab (1)

Fourth Semester (14 crs)

Science/Lab Elective (4)
MATH 163E Calculus II (4)
MET 20 Applied Mechanics I (3)
ENG 116 Technical Writing (3)