

# Engineering Science

## Associate in Science Degree

### Liberal Arts with Engineering Science Option

For entry into a four-year engineering science program. For additional information, contact a counselor or the department chairperson.

Graduates should be able to:

- Write accurate scientific reports.
- Analyze and solve numerical problems related to engineering.
- Use computers for word processing, data collection, and analysis.
- Program computers to solve engineering problems.
- Design and carry out scientific experiments.
- Manipulate scientific apparatus.
- Understand the relationships between history and the development of scientific thought.

Minimum grade of "C" is required for all courses in major, and all science, mathematics, computer science and engineering courses.

### Humanities (12 credits)

EN	101	Composition I
EN	102	Composition II
HI	101	History of Western Civilization I
HI	102	History of Western Civilization II

### Social Science (6 credits)

EC	101	Economics I
EC	102	Economics II

### Science (16 credits)

CH	111	General Chemistry I
CH	112	General Chemistry II
PY	120	Physics I
PY	121	Physics II

### Mathematics (16 credits)

MA	120	Calculus I
MA	121	Calculus II
MA	201	Calculus III
MA	202	Differential Equations

### Computer Science (3 credits)

CIS	165	Fundamentals of C++ Programming
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### Engineering Option (13 credits)

ES	101	Introduction to Engineering
ES	105	Engineering Graphics
ES	206	Engineering Mechanics I (Statics)
ES	207	Engineering Mechanics II (Dynamics)
PY	220	Physics III

## Sample Program

### First Semester

			Credits
EN	101	Composition I	3
ES	101	Introduction to Engineering	1
ES	105	Engineering Graphics	2
HI	101	History of Western Civilization I	3
MA	120	Calculus I	4
PY	120	Physics I	4
			17

### Second Semester

			Credits
CIS	165	Fundamentals of C++ Programming	3
EN	102	Composition II	3
HI	102	History of Western Civilization II	3
MA	121	Calculus II	4
PY	121	Physics II	4
			17

### Third Semester

			Credits
CH	111	General Chemistry I	4
EC	101	Economics	3
ES	206	Engineering Mechanics I (Statics)	3
MA	201	Calculus III	4
PY	220	Physics III	4
			18

### Fourth Semester

			Credits
CH	112	General Chemistry II	4
EC	102	Economics II	3
ES	207	Engineering Mechanics II	3
MA	202	Differential Equations	4
			14

**Total Credits for Degree 66**