

Engineering

Associate of Science Degree

Transfer Program

A full range of engineering and related courses are offered to satisfy freshman and sophomore requirements for students planning to transfer to institutions offering baccalaureate degrees in engineering or engineering technology. A solid foundation is laid for further studies in civil, mechanical, chemical, and electrical engineering. This program provides the flexibility needed by students interested in emerging fields like computer science, robotics, bioengineering, geological engineering, environmental engineering, and many others. The advantages of small class size, individual attention, a knowledgeable professional staff, and state-of-the-art instructional equipment incorporating modern CAD (computer aided design) are well suited to meeting the lower division requirements for degrees in engineering. A solid math and science background is important preparation for a college engineering program. Completion of the following courses normally fulfills half of bachelor's degree requirements in Engineering. Course selections should be tailored to match requirements of the intended transfer institution.

Program Requirements

General Education Requirements (see pages 48-49)

Area of Study	Credits
GEM 1 - Written Communication	6
GEM 2 - Oral Communication	3
GEM 3 - Mathematical Ways of Knowing ¹	0
GEM 4 - Scientific Ways of Knowing ¹	0
GEM 5 - Humanistic and Artistic Ways of Knowing ²	3
GEM 6 - Social and Behavioral Ways of Knowing ²	3
GEM 7 - Institutionally Designated	4

Program Requirements

Course No.	Title	Credits
CHEM-111	Principles of General College Chemistry I	5
ENGR-123	Intro to Engineering	2
ENGR-210	Statics	3
MATH-170	Analytic Geometry and Calculus I	4
MATH-175	Analytic Geometry and Calculus II	4
MATH-370	Intro to Ordinary Differential Equations	3
PHIL-103	Ethics	3
PHYS-211	Engineering Physics I	5

Choose one course from the following:

ECON-201	Principles of Economics (Macro)	3
ECON-202	Principles of Economics (Micro)	

Choose 13 credits from the following: ³

CHEM-112	Principles of College Chemistry II	5
CHEM-277	Organic Chemistry I	
CHEM-278	Organic Chemistry I Lab	
CHEM-287	Organic Chemistry II	
CHEM-288	Organic Chemistry II Lab	
CS-150	Computer Science	
CS-240	Digital Logic	
ENGL-202	Technical Writing	
ENGR-105	Engineering Graphics	
ENGR-214	Surveying	
ENGR-220	Dynamics of Rigid Bodies	
ENGR-223	Engineering Analysis	
ENGR-240	Circuits I	
ENGR-241	Circuits II	
ENGR-295	Strength of Materials	
MATH-275	Analytic Geometry and Calculus III	
MATH-335	Linear Algebra	
PHYS-212	Engineering Physics II	

Elective Requirements

Courses 100-level or higher	0
Total Credits (minimum) 64	

Notes:

- ¹ This General Education Requirement is met by the Program Requirements.
- ² This General Education Requirement is partially met by the Program Requirements.
- ³ Choose courses based on major chosen at your transfer institution.