

Associate in Science Degree: Engineering

The Engineering program provides curriculum concerned with the fundamentals of mechanics, electrical theory, and materials that can be applied to all disciplines within engineering. The degree concentrates on helping students develop critical thinking skills, a creative imagination, and excellent communication skills to effectively function in the professional environment. Most careers in engineering require a baccalaureate or graduate degree. Career options include: mechanical engineer, civil engineer, computer engineer, aerospace engineer, biomedical engineer, automotive engineer, and manufacturing engineer.

Degree Student Learning Outcome:

Students will be able to interpret, analyze, and evaluate engineering concepts.

Program Requirements:

Units Required: 48

	Units:	
ENGR-151	Materials of Engineering	3.0
ENGR-152	Statics	3.0
ENGR-260	Electrical Circuits I	3.0
ENGR-260L	Electrical Circuits I Laboratory	1.0
CHEM-201	General Chemistry I	5.0
OR		
CHEM-201H	General Chemistry I – Honors	5.0
MATH-211	Calculus I	5.0
MATH-212	Calculus II	5.0
MATH-213	Calculus III	5.0
MATH-215	Differential Equations	4.0
PHYSIC-220	Physics for Scientists and Engineers: Mechanics of Solids and Fluids	4.0
PHYSIC-221	Physics for Scientists and Engineers: Electricity and Magnetism	4.0

Plus a minimum of three units from the following:

ENGR-101	Introduction to Engineering	2.0
ENGR-110	Introduction to Engineering Graphics with AutoCAD	3.0
ENGR-114	Solids Modeling for Mechanical Drafting	3.0
ENGR-151L	Materials of Engineering Lab	1.0
ENGR-230	Dynamics	3.0
ENGR-240	Strength of Materials	3.0
MATH-214	Linear Algebra	4.0
PHYSIC-222	Physics for Scientists and Engineers: Wave Motion, Heat, Optics and Modern Physics	4.0
SURV-101A	Introduction to Land Surveying	3.0
SURV-101L	Introduction to Land Surveying Laboratory	1.0

Plus a minimum of three units from the following:

ENGR-220	Programming and Problem-Solving in MATLAB	3.0
CMPSCI-111	Introduction to Algorithms and Programming/Java	3.0

CMPSCI-111L Introduction to Algorithms and Programming Lab	1.0
CMPSCI-235 'C' Programming	3.0