

ENGINEERING WITH EMPHASIS IN MECHANICAL ENGINEERING APPLICATIONS (AS DEGREE S0838)

Program Learning Outcomes

Review Student Learning Outcomes (SLOs) (<http://www.mtsac.edu/instruction/outcomes/sloinfo.html>) for this program.

Natural Science Division

Degree S0838

The Engineering with Emphasis in Mechanical Engineering Applications AS degree prepares graduates for career and transfer. Relevant positions include engineering technician, CAD technician, maintenance technician, facilities manager, manufacturing technician, operations technician, lab technician, technical sales and other endeavors related to mechanical components and systems. The program emphasizes how things work, and the role technicians can play in design, development, testing, and manufacturing of mechanical devices. Completion of this degree may facilitate transfer into B.S. programs in Electromechanical Systems Engineering Technology or other related Mechanical Engineering Technology programs.

Required Courses

Course Prefix	Course Name	Units
Required Core		29 -30
ENGR 1	Introduction to Engineering	2
ENGR 1C	Engineering Critical Thinking	3
ENGR 6	Introduction to Engineering Programming Concepts and Methodologies	4
or ENGR 7	Programming Applications for Engineers	
ENGR 8	Properties of Materials	4
ENGR 18	Introduction to Engineering Graphics	3
ENGR 24	Engineering Graphics	4
CHEM 50	General Chemistry I	5
or CHEM 50H	General Chemistry I - Honors	
or CHEM 55	Chemistry for Engineers	
PHYS 2AG	General Physics	4
or PHYS 4A	Engineering Physics	
Required Electives		
Choose at least 7 units		7
ENGR 40	Statics	
ENGR 40T	Applied Statics	
ENGR 41	Dynamics	
ENGR 42	Mechanics of Materials	
ENGR 44	Electrical Engineering	
ENGR 50A	Robotics Team Project Development	
ENGR 50B	Intermediate Robotics Team Project Development	
ENGR 285	Differential Equations and Linear Algebra for Engineers	
PHYS 2BG	General Physics	
PHYS 4B	Engineering Physics	
Total Units		36 -37

Please see the Mt. San Antonio College Engineering, Engineering Technology and Surveying Program Website (<https://www.mtsac.edu/engineering/>) for updated information on program courses, transfer help, extracurricular activities, faculty contact information and more.