

ENGINEERING, ASSOCIATE IN SCIENCE

Reading and Writing, Mathematics, Information Competency, and General Education requirements.

The Associate in Science in Engineering is designed to prepare students for transfer into an Engineering baccalaureate program by providing foundational training in core courses across the discipline.

Learning Outcomes

Upon successful completion of the program, students will be able to:

- Use the scientific method to investigate phenomena in the natural world and use concepts, experiments, and/or theory to explain them.
- Use the engineering method to solve technical problems or create products or processes.
- Analyze and evaluate complex issues or problems, draw reasoned conclusions and/or generate solutions, and effectively communicate their results.

Associate in Science Degree Major Requirements

Code	Title	Units
Required Core		
Select at least 18 units from the following:		18
CHEM 1A	General Chemistry I	
CHEM 1B	General Chemistry II	
MATH 20A	Calculus with Analytic Geometry I	
MATH 20B	Calculus with Analytic Geometry II	
MATH 20C	Calculus of Several Variables	
MATH 31	Linear Algebra	
MATH 32	Differential Equations	
PHYS 3A	Science and Engineering Physics I	
PHYS 3B	Science and Engineering Physics II	
PHYS 3C	Science and Engineering Physics III	
Select at least 7 units from the following:		7
ENGR 1A	Introduction to Engineering	
ENGR 2	Engineering Design Graphics	
ENGR 4	Engineering Materials	
ENGR 8	Engineering Statics	
ENGR 12 & ENGR 12L	Engineering Circuits and Engineering Circuits Laboratory	
ENGR 17	Programming and Problem-Solving in MATLAB	
TOTAL MAJOR UNITS		25
Additional Requirements		
Complete Competency Requirements, general education pattern (MPC General Education, CSU General Education, or IGETC), and electives, if needed, for a total of 60 degree-applicable units. ¹		35
Total Units		60

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Contact an MPC counselor for major preparation at specific institutions.

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including