

ENGINEERING FUNDAMENTALS (CERTIFICATE N0846)

Natural Science Division

Engineering and Engineering Technology are fields of study that require the application of scientific and engineering knowledge, methods, and technical skills in support of engineers and other professionals. Engineering technologists use engineering principles, physical sciences, basic Physics, Mathematics, Surveying, materials testing, computing, fabrication, technical documentation, specifications, and engineering reports. This program is for job seekers interested in Engineering and Engineering technology; as well as students interested in university programs in Engineering and Engineering technology.

This program incorporates the college-level English, Mathematics, Physics, critical thinking, and Engineering Technology skills needed by an entry-level Engineering Technology employee. Completion of this certificate may prepare graduates for technical work involving electrical circuits and systems, mechanical systems, Microsoft Excel, MATLAB, written communication, oral communication, functional analysis, project management, developing presentations, and client interactions. This program may prepares students for terminal positions as assistant engineers, engineering technicians and analysts; and may facilitate transfer into a Bachelor of Science degree in Engineering Technology or other related fields.

Required Courses

Course Prefix	Course Name	Units
ENGL 1A	Freshman Composition	4
or ENGL 1AH	Freshman Composition - Honors	
or ENGL 1AM	College Composition for Non-Native English Speakers	
or AMLA 1A	College Composition for Non-Native English Speakers	
ENGR 1	Introduction to Engineering	2
ENGR 1C	Engineering Critical Thinking	3
MATH 150	Trigonometry	3
or MATH 160	Precalculus Mathematics	
or MATH 180	Calculus and Analytic Geometry	
PHYS 2AG	General Physics	4
Total Units		16 - 17

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.