

CIVIL ENGINEERING ASSOCIATE IN SCIENCE



This degree program is designed to cover the first two years of a four-year program leading to the bachelor's degree in engineering at most four-year colleges and universities. While the bachelor's degree is usually the minimum needed to practice as an engineer, the associate degree will permit an individual to find work in most engineering firms as an engineering aide.

Career Opportunities

Aerospace Engineer¹
 Agricultural Engineer¹
 Architectural Engineer¹
 Biomedical Engineer¹
 CAD/CAM Engineer¹
 Chemical Engineer¹
 Civil Engineer¹
 Civil Engineering Technician
 Computer Engineer¹
 Electrical Engineer¹
 Electrical Engineering Technician
 Environmental Engineer¹
 Geological Engineer¹
 Industrial Engineer¹
 Industrial Engineering Technician
 Manufacturing Engineer¹
 Marine Engineer¹
 Materials Engineer¹
 Mechanical Engineer¹
 Mechanical Engineering Technician
 Mining Engineer¹
 Nuclear Engineer¹
 Petroleum Engineer¹
 Structural Engineer¹
 Systems Engineer¹
 Robotics Engineer¹

¹ Bachelor's degree or higher required.

Program Learning Outcomes

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

- Draw conclusions about simple and complex systems by collecting, assessing, and analyzing information.
- Communicate technical ideas in group and professional settings in both written and oral form.

Associate in Science Degree Requirements

Code	Title	Units
CHEM-141	General Chemistry I	5
ENGR-100	Introduction to Engineering and Design	4
ENGR-119	Basic Engineering CAD	3
or CADD-120	Introduction to Computer-Aided Drafting and Design	
ENGR-218/SURV-218	Plane Surveying	4
ENGR-225	Mechanics for Civil Engineers	3
MATH-160	Elementary Statistics	4
MATH-180	Analytic Geometry and Calculus I	5
MATH-280	Analytic Geometry and Calculus II	4
MATH-281	Multivariable Calculus	4
MATH-285	Differential Equations	3
PHYC-201	Mechanics and Waves	5
PHYC-202	Electricity, Magnetism, and Heat	5
Total Units		49

Plus General Education Requirements (<https://catalog.gcccd.edu/cuyamaca/degree-requirements-transfer-information/>)