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 Engineer[1]
Agricultural Engineer[1]
Architectural Engineer[1]
Biomedical Engineer[1]
CAD/CAM Engineer[1]
Chemical Engineer[1]
Civil Engineer[1]
Civil Engineering Technician
Computer Engineer[1]
Electrical Engineer[1]
Electrical Engineering Technician
Environmental Engineer[1]
Geological Engineer[1]
Industrial Engineer[1]
Industrial Engineering Technician
Manufacturing Engineer[1]
Marine Engineer[1]
Materials Engineer[1]
Mechanical Engineer[1]
Mechanical Engineering Technician
Mining Engineer[1]
Nuclear Engineer[1]
Petroleum Engineer[1]
Structural Engineer[1]
Systems Engineer[1]
Robotics Engineer[1]

[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-120	Engineering Computer Applications	3
ENGR-218/SURV-218	Plane Surveying	4
ENGR-225	Mechanics for Civil Engineers	3
ENGR-260	Engineering Materials	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		**55**

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