

ENGINEERING (A.S.)

ASSOCIATE OF SCIENCE DEGREE

An associate of science degree in engineering provides students with an introductory knowledge of physics and math and provides the skills necessary to pursue upper-division coursework at a four-year university as well as the experience needed for undergraduate research and entry-level internships. The degree program is composed of some common courses that are consistent with the transfer requirements to both UC and CSU systems and some elective and specialty courses that allow the student to tailor the degree to match the specific requirements of his or her transfer institution. This enables efficient completion of the A.S. degree while simultaneously completing transfer requirements, thus promoting timely completion of a bachelor's degree in any of the engineering disciplines (e.g., mechanical, electrical, aerospace, civil, chemical, etc.).

Program Student Learning Outcomes

- Ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics.
- Ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- Ability to communicate effectively with a range of audiences.
- Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- Ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- Ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- Ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Requirements

Code Number	Course Title	Units
Major Requirements		
CHEM 111	General Chemistry	5.0
MATH 170	Analytic Geometry and Calculus I	4.0
MATH 190	Analytic Geometry and Calculus II	4.0
MATH 225	Calculus III	5.0
PHYS 201	Engineering Physics	4.0
PHYS 202	Engineering Physics	4.0
Total Units		26

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

Complete the following: (1) major requirements, (2) the General Education requirements, and (3) additional electives to achieve a minimum of 60 units.