

ENGINEERING

Associate in Science

Transfer Preparation* (Major Code: 01565)

Provides a student the opportunity to complete all of the lower-division courses required for transfer to a university to pursue a degree in engineering. Designed to prepare a student for a professional career in industry, business, or government. The core courses provide the technical knowledge and skills for students who are interested in aerospace, chemical, mechanical, or nuclear engineering.

Students entering the engineering program as freshmen will be building upon their high school mathematics and physical science background. High school preparation should include algebra, geometry and trigonometry, chemistry, physics, and a course in technical drafting.

subject to change. Therefore, it is important to verify transfer major preparation and general education requirements through consultation with a counselor in either the Counseling Center or Career and Transfer Connections. See catalog Transfer Courses Information (<http://catalog.swccd.edu/student-success-support-program/student-services-and-college-services/other-services/transfer-courses/>) section for further information.

To earn an associate degree, additional general education and graduation requirements (<http://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/>) must be completed.

The program outlined fulfills the requirements for San Diego State University and the California State University system.

Program Student Learning Outcome

- Develop mathematical skills, acquire engineering knowledge, and practice applying these skills and knowledge to engineering problems.

First Semester		Units
CHEM 200	GENERAL CHEMISTRY I	5
MATH 250	ANALYTIC GEOMETRY AND CALCULUS I	5
ENGR 120C	INTRODUCTION TO COMPUTER PROGRAMMING - C/C++ LANGUAGE	4
Units		14
Second Semester		Units
MATH 251	ANALYTIC GEOMETRY AND CALCULUS II	4
PHYS 270	PRINCIPLES OF PHYSICS I	4
ENGR 110	ENGINEERING DESIGN AND GRAPHICS	3
Units		11
Third Semester		Units
ENGR 250	ENGINEERING STATICS	3
MATH 252	ANALYTIC GEOMETRY AND CALCULUS III	4
PHYS 271	PRINCIPLES OF PHYSICS LABORATORY I	1
PHYS 272	PRINCIPLES OF PHYSICS II	4
PHYS 273	PRINCIPLES OF PHYSICS LABORATORY II	1
Units		13
Fourth Semester		Units
ENGR 251	ENGINEERING DYNAMICS	3
ENGR 270	ELECTRICAL CIRCUITS	3
PHYS 274	PRINCIPLES OF PHYSICS III	4
PHYS 275	Principles of Physics Laboratory III	1
Units		11
Total Units		49

Code	Title	Units
Recommended Elective		
ENGR 102	INTRODUCTION TO ENGINEERING CAREERS	2

* Students planning to transfer to a four-year college or university should complete courses specific to the transfer institution of choice. University requirements vary from institution to institution and are