

ENGINEERING

BACHELOR OF SCIENCE DEGREE REQUIREMENTS

The bachelor of science degree is granted upon completion of the following programs: civil, electrical, industrial, or mechanical engineering; surveying and photogrammetry. These programs include the general education and degree requirements of the university; students must consult their engineering advisors about meeting the requirements of the general education program. Foreign students taking I S C 10, 21, and 93 in their first year may postpone courses that are not prerequisite to courses in their major. A minimum G.P.A. of 2.0 must be maintained in all courses taken in the CSUF School of Engineering.

For specific requirements see course outline under selected option.

CIVIL ENGINEERING

(74 units engineering; 134 units total)

FIRST SEMESTER		Units	SECOND SEMESTER		Units
S & P 11, L	Plane Surveying	3	S & P 12, L	Advanced Plane Surveying ⁴	3
C E 85	Introduction to Civil Engineering	1	Engr 70	FORTRAN IV Programming	2
Engr 26	Engineering Graphics	3	Math 76	Mathematical Analysis II	4
Math 75	Mathematical Analysis I	4	Phys 5A	Principles of Physics I	5
Engl 1	Composition	3	Hist 11/12	American History	3
Gen Ed	(any area except area I)	1			
		15			17
THIRD SEMESTER			FOURTH SEMESTER		
Engr 20	Engineering Mechanics: Statics	3	Engr 31	Engineering Materials	3
Math 77	Mathematical Analysis III	4	Math 81	Applied Analysis	4
Phys 5B	Principles of Physics II	5	PI Sc 2	American Govt and Institutions	3
Chem 1A	General Chem & Qual Analysis	5	*Chem 8	Elementary Organic Chemistry	3
		17	Geol 1	Physical Geology	4
					17
FIFTH SEMESTER			SIXTH SEMESTER		
Engr 121, L	Mechanics of Materials	4	C E 123, L	Soil Mechanics	3
C E 150	Transportation Planning & Design	3	C E 130	Theory of Structures	3
Engr 112	Engineering Mechanics Dynamics	3	C E 142, L	Water Supply & Wastewater	4
Engr 116, L	Fluid Mechanics	4	Engr 136	Thermodynamics	3
Soc Sci	See ²	3	Humanities	See ³	3
		17			16
SEVENTH SEMESTER			EIGHTH SEMESTER		
C E 124	Concrete Laboratory	1	C E 133	Steel and Timber Structures	4
C E 132	Reinforced Concrete Design	3	C E 180	Senior Project	1
C E 185	Civil Engineering Practice	1	Engr 182W	Engineering Writing	2
Engr 160	Engineering Economy	2	App Elect	See ¹	6
Engr 90	Principles of Electrical Circuits	3	Humanities	See ³	3
App Elect	See ¹	6	Soc Sci	See ²	3
		16			19

¹ Approved Electives: Select from courses in one or more of the following groups; selection of asterisked courses requires the Dean's prior approval.

Environmental Water Quality: C E 140, 144, 145; Biol 133 *.

Structures: Engr 122; C E 131, 134, 135.

Surveying: S & P 23 & L, 41, 102, 135, 151.

Transportation: C E 140, 151, 152, 153; S & P 41.

Water Resources: C E 140, 141, 143, 144.

Additional approved electives: C E 161, 190, 191T, 193; Engr 161, I E 110.

² Social Sciences: Select from Anth 2, 3, 4; As Am 15; B1 S 38, 135; Crim 1, 132; Econ 1A, 1B, 101; Geog 3, 4; Hist 4, 5; La R 3, 5; NAS 103; PI Si 1; Psych 134; Soc 1, 2; W S 10.

³ Humanities: Select from Art 1; Art H 10, 20; B1 S 25; Drama 1, 62; Engl 30, 76; Hist 1, 2; La R 7, 9; Phil 1; RTV 127, 128; W S 145, 168.

⁴ Environmental Water Quality Students: With the Dean's approval, substitute Bot 10 for C E 2, L.

* or Chem 1B.