

Required Courses

- 15 units of required mathematics, 12 units of physics, 5 units of chemistry and 3 units of computer science,
- 10 units of required lower division engineering courses and 42 units of required upper division courses,
- 9 units of elective courses, 3 units of technical elective course, and 33 units of General Education courses (for Engineering Track)
- Course prerequisites are strictly enforced. Students not meeting the prerequisites are subject to being administratively dropped.
- All required lower division courses must be passed before upper division courses can be taken.

Required Math and Science Lower Division Courses

Course Number	Course Name	Units	Grade	SFSU or Transfer	Term Yr	Prerequisite
CHEM 115	General Chemistry I: Essential Concepts of Chemistry	5				550 or above on Entry Level Math (ELM) exam or approved exemption, or MATH 70© and satisfactory score on chemistry placement exam.
MATH 226	Calculus I	4				Successful completion of ELM requirement; MATH 109© or equivalent.
MATH 227	Calculus II	4				MATH 226©
MATH 228	Calculus III	4				MATH 227©
MATH 245	Elementary Differential Equations & Linear Algebra	3				MATH 228©
CSC 210	Introduction to Computer Programming	3				MATH 226©
PHYS 220/222	General Physics with Calculus I & Lab	4				High school physics or equivalent; MATH 226©; PHYS 222♥; MATH 227♥
PHYS 230/232	General Physics with Calculus II & Lab	4				PHYS 220© and MATH 227©; PHYS 232♥
PHYS 240/242	General Physics with Calculus III & Lab	4				PHYS 220© and MATH 227©; PHYS 242♥

Required Lower Division Courses for Electrical Engineering

ENGR	Course Name	Units	Grade	SFSU or Transfer	Term Yr	Prerequisite
100	Introduction to Engineering	1				High school algebra and trigonometry
106	Introduction to Engineering Lab	1				ENGR 100♥
2XX ♦	Mechanical Engineering Elective	3				See Bulletin for prerequisite requirement
205	Electric Circuits	3				PHYS 230; MATH 245♥; ENGR 206♥
206	Circuits and Instrumentation	1				ENGR 205♥
290	MATLAB or PSPICE Module	1				Course in Programming

Required Upper Division Courses for Electrical Engineering

ENGR	Course Name	Units	Grade	SFSU or Transfer	Term Yr	Prerequisite
300	Engineering Experimentation	3				ENGR 205; ENGR 206 or ENGR 200
301	Electrical Measurements	1				ENGR 353♥
305	Systems Analysis	3				ENGR 205; MATH 245
306	Electromechanical Systems	3				ENGR 205©
315	System Analysis Laboratory	1				ENGR 305♥
350	Intro. Engineering Electromagnetics	3				MATH 245©, PHYS 240©
353	Electronics	3				ENGR 205©, 206©; ENGR 301♥
356	Basic Computer Architecture	3				ENGR 205© or CSC 210©
357	Computer Digital Laboratory	1				ENGR 356♥
442	Op. Amplifier System Design	3				ENGR 305©
446	Control Systems Lab	1				ENGR 447♥
447	Control Systems	3				ENGR 305©
449	Communication Systems	3				ENGR 305©
451	Digital Signal Processing	4				ENGR 305©; CSC 210 or ENGR 290 (Matlab)
478	Design with Microprocessors	4				ENGR 356©
696	Engineering Design Project I	1				Complete 21 upper division engineering units; pass JEPET or English 414♥ or English 410 or 411
697	Engineering Design Project II	2				ENGR 696

♦ = Any of ENGR 201, 203, 204, 303

© = Course must have been passed with a grade of C or better

♥ = Course must either be completed or taken concurrently

Transferred Courses

Students wishing to transfer Math, Science and Engineering courses from other educational institutions should complete this form and see the Program Head of Electrical Engineering in their first term of residence at SFSU. If you haven't done your transfer credit evaluation with the Program Head, you may not be able to enroll in courses with prerequisites, so do it now!

- Students transferring lower division courses from other schools in California only need bring a copy of their transcripts (official or unofficial) and this form.
- Transfers of upper division courses and transfers from out-of-state institutions are evaluated on a case-by-case basis. Students wishing these transfers should bring a copy of the Advanced Standing Evaluation from SFSU, as well as all relevant supporting material, including course syllabi, books, notes, etc.

Students must complete at least 30 units of coursework at SFSU, including 24 units of upper division courses. Twelve units (upper or lower division) must be in the Electrical Engineering major. Nine units must be Segment III GE.

Name: _____ Student number: _____

Course Number	Course Name	Institution	Course	Units†	Term/Year	Grade	Approval
CHEM 115	General Chemistry I: Essential Concepts of Chemistry						
MATH 226	Calculus I						
MATH 227	Calculus II						
MATH 228	Calculus III						
MATH 245	Elementary Differential Equations & Linear Algebra						
CSC 210	Introduction to Computer Programming						
PHYS 220/222	General Physics with Calculus I & Lab						
PHYS 230/232	General Physics with Calculus II & Lab						
PHYS 240/242	General Physics with Calculus III & Lab						
ENGR 100	Introduction to Engineering						
ENGR 106	Introduction to Engineering Lab						
ENGR 201	Dynamics						
ENGR 203	Materials of Electrical and Electronics Engineering						
ENGR 204	Mechanics						
ENGR 205	Electric Circuits						
ENGR 206	Circuits and Instrumentation						
ENGR 290	MATLAB Programming I or PSPICE module						

† Express as semester units. Each quarter unit = 2/3 semester units

Examined by: _____ Signed: _____ Date: _____