Computer Engineering, B.S.

DEPARTMENT

MS in Engineering - Electrical Engineering Option, M.S.
MS in Engineering - Computer Engineering Option, M.S.
BS in Electrical Engineering, B.S.
MN in Electrical Engineering, Minor
BS in Computer Engineering, B.S.
MN in Computer Engineering, Minor

REQUIREMENTS

Department

Bachelor of Science Degree Requirements
Computer Engineering Major

1. Major requirements (68 units) and additional requirements (21 units)

Major requirements (68 units)
ECE 1, 71 or CSCI 40, ECE 81 or CSCI 41, ECE 72, 85, 85L, 90, 90L, 103, 106, 118, 118L, 124, 125, 128, 128L, 146, 174, 176, 178, 186A (52 units)
Technical Area (16 units)
Select at least 16 units from the following: ECE 107, 114, 115, 119L, 126, 132, 134, 134L, 135, 138, 138L, 140, 148, 155, 172, 173; CSCI 144, 150, 156

Additional requirements (21 units)
MATH 76, 77, 81; PHYS 4A; PHYS 4B, PHYS 4BL; PHYS 4C (see advising notes)

2. General Education requirements (49 units)*
Select one course from each of the G.E. areas: Area A1, A2, D1, D2. (See G. E. listings.)
The following courses are required to satisfy both G.E. and major requirements: MATH 75 [B4], CHEM 3A [B1], PHIL 1 or 10 [C2], ECE 186B [IB], ECON 40 or 50 [D3], BIOL 10 [B2]

3. Other requirements (6 units)
Upper-division writing and Multicultural and International (MI)
PLSI 120 or BA 104 are required to satisfy MI requirements.

4. Sufficient elective units to meet required total units (if needed) (See Degree Requirements.)

5. Total (124 units)

Note: Engineering majors are exempt from G.E. Area A3, Area E, Area IC, and Area ID. Only one course is required for G.E. Area C2.

Advising Notes
1. Courses in mathematics, the physical sciences, or engineering taken CR/NC are not counted toward fulfillment of degree requirements in computer engineering.
2. Computer engineering majors might consider a math minor. (See faculty advisor for details.)
3. All computer engineering students must consult with their academic advisor at least once each year.
4. The Upper-Division Writing Skills requirements can be met by passing the university examination or completing an upper-division writing course with a letter grade of C or better no sooner than the term in which 60 units of coursework are completed. The writing course units are not counted toward the required 130 program units.
5. ENGR 101 may be taken instead of MATH 81.
6. The prerequisites for ECE 186A are ECE 85, 85L, 90, 106, 118, 118L, 124, 128, 128L, 176; CSCI 41; and one course from ECE 146 or 174.
7. Students must enroll in and complete ECE 1 during the first two semesters of attendance at Fresno State.
8. The following prerequisite courses must be completed with a letter grade of C or better: ECE 72, 71, 85, 85L, 90, 90L.

Prerequisites: Students missing any course prerequisites may be required to take an additional course (if they earned a C) or repeat a course (if they earned a D or less.)

FACULTY

The faculty members possess depth and breadth in their specialty areas and are active in bringing these experiences and skills to the classroom. The identifiable strengths of the academic program are the laboratory and hands-on experience for students, the proper attention given to the scientific and mathematical foundation of electrical engineering and computer engineering, and the rigor of upper-division courses coupled with design and culminating senior projects. The technical and liberal arts components of the curriculum provide the students with the opportunity for gaining self-development, technical competence, and awareness of economic and ethical responsibilities. The technical curriculum includes (l) basic engineering science, (2) core electrical and computer engineering subjects, and (3) a junior-/senior-level choice for more depth in communications and analog systems, power systems and controls, or digital systems and computers.

The department requires mandatory advising to help students make sound academic decisions.

For faculty phone numbers and e-mail, see the campus directory.

For more on the faculty, see the faculty pages.
The faculty pages are updated by the department or program.