

Engineering and Computer Science

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE ADMINISTRATIVE OFFICES

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WOMEN IN SCIENCE AND ENGINEERING PROGRAM

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Director: Diane Schwartz

DEPARTMENTS WITHIN THE COLLEGE

Civil Engineering and Applied Mechanics

Chair: Stephen Gadomski
Telephone: (818) 677-2166 Fax: (818) 677-5810
Office Manager: Betsy Jones

Computer Science

Chair: Steven Stepanek
Telephone: (818) 677-3398 Fax: (818) 677-7208
Office Manager: Sally Sawchuk
Administrative Assistant: Yanira Navarro

Electrical and Computer Engineering

Chair: Nagi El Naga
Telephone: (818) 677-2190 Fax: (818) 677-7062
Office Manager: Kathleen Pohl
Administrative Assistant: Carolyn Naiman

Manufacturing Systems Engineering and Management

Chair: Bonita Campbell
Telephone: (818) 677-2167 Fax: (818) 677-6427
Office Manager: Deborah Gibby
Program Assistant: Cohen Faye Beyeler

Mechanical Engineering

Chair: Hamid Johari
Telephone: (818) 677-2187 Fax: (818) 677-7062
Office Manager: Diane MacLachlan

The following pages contain information regarding the four engineering departments. Information about the Department of Computer Science is alphabetically listed in a separate section within this catalog.

DEGREE PROGRAMS:

Undergraduate Degrees Offered:

- B.S., Civil Engineering**
- B.S., Computer Engineering**
- B.S., Computer Science**

- B.S., Construction Management Technology**
- B.S., Electrical Engineering**
- B.S., Manufacturing Systems Engineering**
- B.S., Mechanical Engineering**

Graduate Degrees Offered:

- M.S., Computer Science**
- M.S., Electrical Engineering**
- M.S., Engineering Management**
- M.S., Materials Engineering**
- M.S., Manufacturing Systems Engineering**
- M.S., Mechanical Engineering**
- M.S., Engineering with options**
 - Option: Applied Mechanics (closed to new students)**
 - Option: Structural Engineering**

Minors Offered:

- Computer Science**
- Construction Management Technology**
- Manufacturing Systems Engineering**

The Computer Science program is accredited by the Computing Accreditation Commission, and the Civil Engineering, Electrical Engineering, Manufacturing Systems Engineering and Mechanical Engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.

The requirements of the B.S., M.S., and Minor programs in engineering and technology are detailed under the various departmental listings that follow.

ENGINEERING AND COMPUTER SCIENCE SCHOLARSHIP

INFORMATION: The College of Engineering and Computer Science administers a substantial scholarship program, dispersing over \$60,000 each year to high-achieving engineering and computer science students. Annual scholarships are funded by corporate and individual friends including the California Society of Professional Engineers (CSPE), Engineers' Council, Joseph and Nancy Owens, Raytheon Solid State Microwave Lab Scholarship, Salt Enterprises, Sage Society/Senior Computers, Teradyne, Inc. and Women in Science and Engineering. The College also administers several scholarship endowments that were established in honor of the Honorable Julian Beck, Pearl Schumann Bloch, John and Jo Guarrera, George T. Harness, Lillian Berger Holtz, C.R. and Ila Johnson, Dianne Marks, Ray Landis, Litton Industries, Los Angeles County Foundation of Civil Engineers and Land Surveyors, and Richard M. Pickett. Also available is the Verizon A.F. Ratcliffe Graduate Fellowship.

Applications and information are available in January with applications due in early March. Specific dates and further information can be obtained from the College administrative offices.

HONORS COOPERATIVE INTERNSHIP PROGRAM

The college offers an opportunity for highly qualified students to work in the local industry throughout an entire calendar year. Students work full-time during the summer and half time during the academic year. Students receive 6 units of academic credit in conjunction with this experience. The program is open to undergraduates who are nearing their senior year, have a minimum 3.0 cumulative GPA and have passed the Upper-Division Writing Proficiency Examination. Graduate students who wish to participate must have a minimum 3.5 cumulative GPA. Applicants are matched to employer-supplied job descriptions and scheduled for interviews with prospective employers. The competitive nature of the program usually generates more applicants than there are positions available. The application period begins in early March and the period of employment is typically from July 1 through June 30.

GENERAL EDUCATION (24- 27 UNITS)

Engineering and technology majors have modified General Education programs depending upon the year and enrollment status as a college student. Returning and transfer students should consult an advisor before planning their General Education programs. Each discipline

has specific general education requirements, thus it is in the student's best interest to select a specific discipline early in their course of study.

In addition to the required major program courses, majors in engineering and technology fields must satisfactorily complete General Education Plan R requirements in Analytical Reading and Expository Writing (3 units), Oral Communication (3 units), U.S. History and Local Government (6 units), Arts and Humanities (6 units), Social Sciences (0 - 3 units), and Comparative Cultural Studies (6 units). Nine of the General Education Plan R units must be at the Upper-Division, and six units must meet the Information Competence requirement.

Students should carefully consult their four-year plan and confer with their faculty advisor when selecting their General Education Plan R courses.

COURSE LIST

CECS 494HCA, HCB, HCC. HONORS CO-OP (1, 2, 3)

Prerequisites: 2nd semester junior standing in major, upper-division writing requirement, minimum 3.0 GPA, Instructor Consent. Co-Op training program. Supervised off-campus professional engineering/computing experience for selected Honors students. Honors Co-Op units do not count towards General Education units or major requirements. Maximum of 6 units is allowed. Letter grade only.