

## SCHOOL OF ENGINEERING

Thomas H. Evans, Dean

Professors: T. Evans, Barnhart, Cehrs, Foin, J. H. Smith

Associate Professors: Deming, Gaylord, Higgins, Jarrett, Kulhan, Richards

Assistant Professors: Bevill, Dominick, Liao

Part-time: Grote, Regier, J. Taylor

The School of Engineering provides instruction in the fields of agricultural, civil, electrical and electronics, industrial, and mechanical engineering.

The training includes experience in solving typical problems involving analysis and design. The theoretical studies are supported by laboratory work which demonstrates the theory and also gives the student a familiarity with instruments and equipment with which professional engineers frequently deal.

The course work in engineering requires as a prerequisite a basic knowledge of mathematics and the physical sciences which, together with the general education program, give the student a broad education.

The School of Engineering is accredited by the Engineers' Council for Professional Development.

The School of Engineering offers bachelor of science degree majors in agricultural, civil, electrical and electronics, industrial, and mechanical engineering. Students are prepared for professional engineering and graduate study. A substantial amount of science and mathematics is required in the undergraduate program in order that the student understand thoroughly the science he must apply as a professional engineer. The program is science oriented, but only for the purpose of providing the understanding necessary for engineering analysis and creative design. Projects in engineering design that integrate and apply previous fundamental knowledge are assigned in the senior year.

The undergraduate program for the degree is designed to meet national accrediting requirements by containing approximately one-fourth of the program in each of the following areas: basic science and mathematics; engineering science (such as mechanics of solids and fluids, materials, thermodynamics, electricity and magnetism); analysis, design, and support subjects in a professional major (such as civil, electrical, or mechanical); humanities, social sciences, electives and auxiliary subjects.

### HIGH SCHOOL PREPARATION

Minimum high school preparation for entering the engineering program consists of the following: English (3 years), algebra (2 years), geometry (1 year), advanced mathematics (or trigonometry or elementary functions) ( $\frac{1}{2}$  year), physics or chemistry (1 year). Deficiencies in the minimum high school requirements can be made up at the college in regular or summer sessions, but may extend the program beyond the normal four years.

Additional recommended high school courses include: advanced mathematics ( $\frac{1}{2}$  year), physics or chemistry (1 year), biology (1 year), foreign language (2 years), history (1 year), mechanical drawing ( $\frac{1}{2}$  year), shop ( $\frac{1}{2}$  year).

### TRANSFERS

Transfers from junior colleges or other institutions of higher learning are accepted under provisions outlined under *Regulations and Procedures—Admissions*. Students planning to transfer to the Fresno State College engineering program should follow as closely as possible the programs outlined below. Significant deviation from the program in mathematics, science, and engineering courses may necessitate more than the normal four years to complete the engineering degree requirements.