

**ENGINEERING DEPARTMENT****(In the Physical Science Division)**

Professors: Cehrs (Chairman), J.H. Smith

Associate Professors: Barnhart, Foin

Assistant Professors: Bevill, Deming, Gaylord, Higgins, Jarrett, Kulhan, Lawton, Lowe, Richards

The Engineering Department offers curricula to prepare students for professional engineering and graduate study. The application of fundamentals and their extension to engineering practice are emphasized in the specialized courses for the various options. The programs are primarily concerned with preparation for professional work in such areas as investigation, evaluation, planning, design and development, and construction. The agricultural engineering program involves equipment, processes, and structures used in agriculture and its associated industries. Civil engineering is concerned with such fixed works as buildings, highways, bridges, water projects, and with surveying and mapping; electrical engineering, with fields of power, lighting, communications, and electronics; industrial engineering, with efficient use of manpower, machines, materials, and money in industry; mechanical engineering, with development of power by engines, its application to mass production by machines, and methods of utilizing heat and cold; sales engineering, with sale of equipment where complex technical problems are involved.

**BACHELOR OF SCIENCE DEGREE IN ENGINEERING**

The bachelor of science degree in engineering is granted upon completion of a four-year curriculum consisting of 132 units for all options except industrial option which requires 134 units. The general requirements for the bachelor of science degree must be completed. The required engineering courses and the other essential courses for the civil, electrical, general, industrial, mechanical, and sales engineering programs are listed under bachelor of science degree curricula. One of these programs must be completed.

**BACHELOR OF SCIENCE DEGREE IN AGRICULTURAL ENGINEERING**

The bachelor of science degree in agricultural engineering is granted upon completion of a four-year curriculum consisting of 132 units. The general requirements for the bachelor of science degree must be completed. The required engineering and agriculture courses and the other essential courses are listed under bachelor of science degree curricula.

**HIGH SCHOOL PREPARATION**

The minimum high school preparation for the courses leading to the bachelor of science degree in engineering and the bachelor of science degree in agricultural engineering consists of plane geometry (1 year), algebra (2 years), trigonometry (one-half year), physics or chemistry (1 year), and mechanical drawing (1 year). The omission of any part of the minimum amount of high school preparation will, almost invariably, make it necessary for the student to spend more than four years obtaining the bachelor of science degree. Solid geometry, both physics and chemistry, and additional mechanical drawing are strongly recommended.

**MINOR**

A minor in engineering consists of 18 units of which 12 must be upper division. Engr 170 and 171 may not be included in the 18 units.

**CREDENTIAL PROGRAM**

For information on credential program consult the department chairman and see the *Education Division* section.