



ARTS AND SCIENCE-ENGINEERING CURRICULA

- **Chemical Engineering**
- **Civil Engineering**
- **Electrical Engineering**
- **Environmental Engineering**
- **Mechanical Engineering**

The Arts and Science-Engineering program is a five-year curriculum which leads to a Bachelor of Arts or Science from the College of Arts and Science and a Bachelor of Chemical, Civil, Electrical, Environmental, or Mechanical Engineering from the College of Engineering. Students who elect to complete this program must fulfill all the requirements of their four-year engineering major as well as a minimum of 30 additional credit hours in Arts and Science courses. Within these 30 credits, students must complete the college-level requirements of the College of Arts and Science and earn 15 credits of electives in an Arts and Science area of concentration. All elective courses are chosen in consultation with advisers in both colleges so as to take every advantage of situations where a course can fulfill requirements of both the Engineering and Arts and Science degrees.

Students who wish to pursue the five-year Arts and Science-Engineering program must be initially admitted to a major within the College of Engineering. Engineering students who are interested in this special curriculum should meet with the Assistant Dean during their first year because it may not be possible to complete this curriculum in five years if the change is made after the freshman year. Once admitted to the five-year curriculum, a student may switch back to a normal four-year Engineering program or change to an Arts and Science major for which they are academically qualified.

Area of Concentration. The 15 credit hours which compose the Arts and Science area of concentration are chosen by the student in order to acquire some depth of knowledge in a particular field. In

most cases, these 15 credits will not be sufficient to complete a major in an Arts and Science department. An Arts-Engineering student whose Arts and Science area of concentration falls short of the requirements for a specific major will graduate with a Bachelor of Arts from the College of Arts and Science. With careful planning, however, it is sometimes possible to obtain a second major in Arts and Science by taking more than the minimum of 30 credit hours or by specializing in a scientific or mathematical field which has a number of course requirements in common with the engineering major. Also, since some science departments give both B.A. and B.S. degrees, Arts-Engineers majoring in such a department can earn either degree by completing the appropriate departmental requirements. It is important to note that all Arts-Engineers must fulfill the Arts and Science foreign language requirement as well as second writing course.

DEGREE: BACHELOR OF ARTS or BACHELOR OF SCIENCE
—BACHELOR OF [CHEMICAL, CIVIL, ELECTRICAL,
ENVIRONMENTAL, or MECHANICAL] ENGINEERING
MAJOR: NONE REQUIRED—[CHEMICAL, CIVIL, ELECTRICAL,
ENVIRONMENTAL, or MECHANICAL] ENGINEERING

CURRICULUM	CREDITS*
UNIVERSITY REQUIREMENTS	
ENGL 110 Critical Reading and Writing**	3 ^{1S}
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ¹⁻⁴

*Superior figures indicate semester (fall or spring) and/or year or years in which the course should be taken, i.e. 1^Ffall of freshman year, 2^Sspring of sophomore year, etc.

**Minimum grade of C- required.

#This requirement may be fulfilled through a course or courses taken to complete other degree requirements; it cannot be fulfilled by a course taken pass/fail. See page 21.

ARTS AND SCIENCE COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3
 A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. (See list of courses approved for second writing requirement, page 68.)

Foreign Language: 0-12
 Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements (See page 70)

Group A 12
 Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12
 The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12
 Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

The above groups differ from the General Education groups of the College of Engineering. This requires careful course selection in order to have courses that satisfy both curricula simultaneously.

AREA OF CONCENTRATION REQUIREMENTS

Area of Concentration:

Fifteen credits of Arts and Science electives to be used for acquiring some depth of knowledge in a field chosen in consultation with an Arts and Science adviser. 15

Arts-Science Courses Completed. 1-5

The liberal arts component is listed as 51 credit hours. The absolute minimum required to satisfy the requirements listed above is 45; this assumes that the foreign language requirement is satisfied from high school work, the writing course is in one of the Groups A, B, or C, and that nine credits of the Area of Concentration are also from one of the Groups A, B, or C. Thus, students without language skills and concentrating in science or mathematics will need more than 51 credit hours to complete all of these requirements.

ENGINEERING COLLEGE REQUIREMENTS

For a degree in the College of Engineering, the student must fulfill all the requirements of the chosen engineering major, including the College of Engineering General Education Program. Requirements for degrees in each of the engineering disciplines are described in the College of Engineering section.

CREDITS TO TOTAL A MINIMUM OF..... 158-161

Minimum total credit hours will vary, dependent upon the engineering major selected: Chemical (158), Civil (161), Electrical (158), Environmental (161), Mechanical (161)