Mechanical Engineering (ME)

3rd Year: 5th Semester: Engr 70, 130, 131, 164, 164L, Psych 10, Arts
6th Semester: Engr 121, 150, 150L, 165, 165L, literature or philosophy

4th Year: 7th Semester: Engr 122, 131L, 151, 151L, 166, 166L, Arts; approved elective
8th Semester: Engr 170, 172, biological science; social science; approved elective; elective
(Approved electives from: Engr 123, 124, 136, 139, 145, 156, 156L, 162, 162L, 171, 173, 181, 181L)

Courses

ENGINEERING

Note: Associated lecture and laboratory courses must be taken concurrently except as indicated in course sequences.

1. Plane Surveying: Elementary (2)

Prerequisite: Math 29, 30, one year of mechanical drawing, or permission of instructor. Familiarization with surveying instruments; calculations; topographic surveying.

1L. Plane Surveying: Elementary Laboratory (1)

Field practice in measurements of distance, and in use of level, transit, and plane table in solution of practical problems. (3 lab hours; field trips)

2. Plane Surveying: Advanced (2)

Prerequisite: Engr 1, 1L. Theory and computations covering land surveying; engineering astronomy; introduction to route surveying.

2L. Plane Surveying: Advanced Laboratory (1)

Field practice in land surveying, astronomy, triangulation, and route layout. (3 lab hours; field trips)

11. Manufacturing Processes (2)

General purpose and production machine tools, metal cutting and welding, hot and cold forming, grinding, gages, jigs, fixtures, tooling.

11L. Manufacturing Processes Laboratory (1)

Operation of machine tools, welding equipment, hot and cold forming equipment, casting equipment; practice in the use of gages, jigs, and fixtures. (3 lab hours; field trips)

26. Engineering Graphics (4)

Prerequisite: Math 75 (or concurrently). Principles and applications of orthographic projection and graphical mathematics to the solution of engineering problems. (2 lecture, 2 3-hour labs)

30. Engineering Mechanics: Statics (2)

Prerequisite: Physics 4A; Math 77 (or concurrently). Statics, analysis of force systems, equilibrium problems, graphic and algebraic methods of problem solution.

32. Engineering Materials (2)

Prerequisite or concurrently: Engr 30, Chem 8. Fundamental nature and properties of engineering materials; structure of matter; mechanical, electrical, magnetic, and thermal properties.