COURSES

Note: Active immunization against tetanus (available through the Student Health Service) is a prerequisite for registration in any laboratory course in agriculture and for any student employment on the University Farm.

PLANT SCIENCE (Plant)

10. Plant and Man (3)
Principles of plant structure, physiology, heredity, and environment in relation to growth, adaptation and management of crops.Techniques of research; future developments in plant sciences.

20. Plant Propagation (3)
Principles of sexual and asexual propagation; seed identification, seedage, cuttage, specialized plant structures for propagation; propagation media, rooting aids, structures. (2 lecture, 3 lab hours)

40. Water and Man (3)
Problem approach to man's need for and use of water; his management of water supply, allocation, use, disposal, and quality control for domestic, aesthetic, agricultural, industrial, power, navigation, and recreational uses.

50. Irrigation (3)
Methods of irrigation adapted to the San Joaquin Valley; water requirements of various crops and methods of application. (2 lecture, 3 lab hours; 1 Saturday field trip)

80. Undergraduate Research (1–4; max total 4)
Open to freshmen and sophomores with permission of instructor. Exploratory work on a suitable agricultural problem in plant science.

110. Advanced Irrigation (3)
Prerequisite: Plant 50 or equivalent. Evaluation of the equipment design, operation, soil and crop response of methods of irrigation, sprinkler methods; pipe line and other methods featuring water control, soil and water conservation. (2 lecture, 3 lab hours; 1 week end field trip)

120. Soil Classification and Survey (3)
Prerequisite: Plant 130. Influence of environmental factors on soil development; description and identification of soil profiles and mapping, interpretation of survey data. (2 lecture, 3 lab hours)

130. Soils (3) (Former Plant 30)
Prerequisite: high school chemistry or Chem 2A (Chem 2B or 2C concurrent). Physical and chemical properties of soils as a medium for plant growth; factors that influence soil formation; evaluation of current studies including food production, soil map interpretation, fertilizer use, soil's role in the biosphere. (1 Saturday field trip)

130L. Soils Laboratory (1) (Former Plant 30L)
Prerequisite: Plant 130 or equivalent (or concurrently). Physical, chemical, and biological analysis. Interpretation of field and laboratory data. (3 lab hours)

132. Agricultural Chemical Application (3)
Application techniques of agricultural chemicals: fertilizers, insecticides, herbicides, fungicides, nematocides, fumigants. Emphasis on effective and safe use of chemicals and on equipment calibration to ensure proper rate of application. (2 lecture, 3 lab hours)

140. Plant Breeding (3)
Prerequisite: Biol 120. Application of genetic and environmental principles to improvement of plants; heredity and variation in plants, effects of environmental factors on plant improvements, effects of self and cross fertilization, principles and results of selection and hybridization in plant improvement. (2 lecture, 3 lab hours)