

2007-09 Cal Poly Catalog

Horticulture and Crop Science Department

CRSC–CROP SCIENCE

CRSC 123 Forage Crops (4)

Forages as a world resource in food and animal production, soil and water conservation and sustainable agricultural systems. Forage use systems: pasture and range, green chop, silage, hay and cubes. Identification and management of limiting factors of forage plant growth. Botany of legumes and grasses. Grass, legume and weed identification. Forage crop improvement. Forage composition and quality. Antiquality factors. 3 lectures, 1 laboratory.

CRSC 132 California Field Crops (4)

Production, adaptation, distribution, and utilization of five economically significant field crops: alfalfa, corn, cotton, potatoes, and rice. Field trips to production areas. 3 lectures, 1 laboratory. Prerequisite: HCS 120.

CRSC 202 Enterprise Project (2–4) (CR/NC)

Beginning field experience in production and marketing of an agronomic crop, under faculty supervision. Project participation is subject to approval by the department head and the Cal Poly Corporation. Degree credit limited to 4 units. Credit/No Credit grading only. 1 lecture, variable practicum.

CRSC 203 Organic Farming Enterprise Project (2-4) (CR/NC)

Beginning field experience in production and marketing of organic vegetable and fruit crops, under faculty supervision. Project participation subject to approval by department head and Cal Poly Corporation. Degree credit limited to 4 units. 2-4 units of independent study. Credit/No Credit grading only.

CRSC 244 Precision Farming (4)

Precision agriculture applications. Integrating GIS, GPS, and remote sensing technologies with site-specific farming practices to optimize agricultural productivity. Field trip required. 3 lectures, 1 laboratory. Prerequisite: HCS 120 or other 100-200 level CRSC/FRSC/HCS/VGSC course.

CRSC 333 Greenhouse Vegetable Production (4)

Development, practices, history, and future of crop production in greenhouses. Research applications, commercial applications, production problems, marketing, and economics. Special emphasis on growing transplants in greenhouses and use of nutrient solutions. Field trips to a commercial greenhouse operation and/or analysis lab required. 3 lectures, 1 laboratory. Prerequisite: CHEM 111, SS 221, VGSC 190 or consent of instructor. Students cannot receive degree credit in both CRSC 333 and EHS 340.

CRSC 402 Enterprise Project Management (2–4) (CR/NC)

Advanced experience in production of an agronomic crop. Development of a plan for field operations, a marketing plan, and a budget. Management decision-making. Project participation is subject to approval by the department head and the Cal Poly Corporation. Degree credit limited to 4 units. Credit/No Credit grading only. 1 lecture, variable practicum. Prerequisite: CRSC 202, and consent of instructor.

CRSC 411 Experimental Techniques and Analysis (4)

Principal experimental designs used in agriculture and methods of statistical analysis of data collected from each. Statistical software. Field practice in planning and layout of typical experiments. 3 lectures, 1 laboratory. Prerequisite: Junior standing and MATH 118 or equivalent, and STAT 218 or consent of instructor.

CRSC 421 Oil and Fiber Crops (4)

Culture, harvest, grading, and marketing of cotton, soybean, sunflower, safflower, and other oil and fiber crops. Field trips to major centers of production and marketing required. 3 lectures, 1 laboratory. Prerequisite: CRSC 132, PPSC 321 and BOT 121.

CRSC 422 Tropical and Subtropical Crop and Fruit Production (4) (Also listed as FRSC 422)

Production, distribution and utilization of major agronomic, vegetable, fruit and nut crops of economic importance in tropical and subtropical areas. Weather systems, climates, soils, and cropping systems of tropical and subtropical areas. Field trip required. 3 lectures, 1 laboratory. Prerequisite: 100/200-level plant production course, or consent of instructor.

CRSC 445 Cropping Systems (4)

Classification and description of agricultural systems of the world. Cropping systems as land management plans. Systems approaches to improvement of agricultural situations. Consideration of human factors and the agroecosystem in efforts to create a more sustainable agriculture. Field trip required. 3 lectures, 1 activity. Prerequisite: SS 121 and BOT 121, or HCS 120, or BOT 326, or consent of instructor.

CRSC 581 Graduate Seminar in Crop/Fruit Production (3)

Group study of current problems, trends and research results pertaining to production or marketing of field, vegetable or fruit crops. 3 seminars. Prerequisite: Graduate standing.

CRSC 599 Thesis in Crop Science (1–9)

Systematic research of a significant problem in Crop Science. Thesis will include problem identification, significance, methods, data analysis, and conclusion. Students must enroll every quarter in which facilities are used or advisement is received. Degree credit limited to 6 units. Prerequisite: Graduate standing and consent of instructor.