

2011-13 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 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. Credit/No Credit grading only. 1 lecture, 1-3 units of independent study.

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: FRSC 133 or VGSC 190 or VGSC 230.

CRSC 333 Greenhouse Vegetable Production (2)

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. 2 activities. Prerequisite: CHEM 111 and HCS 120 and SS 221.

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 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: BOT 121 and SS 121, or HCS 120.

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.