

# Plant Science

## Careers & Technology

**Dean**  
TBD  
**Phone**  
(916) 691-7391  
**Area Office**  
T 108

**Counseling**  
(916) 691-7316  
**Cooperative Work Experience**  
(916) 691-7372

### Program Description

This CRC program offers courses designed for students in the Agriculture Business and Horticulture programs.

### Career Opportunities

See Career Opportunities in Agriculture Business and Horticulture

### Highlights

Courses included in two degree programs and a variety of certificates

### NOTE:

Transferable courses may or may not satisfy lower division major preparation, general education, and/or elective requirements. Please meet with a counselor for specific transfer course evaluation.

**For information about the student learning outcomes for this program, see <http://www.crc.losrios.edu/pslo>**

## PLANT SCIENCE (PLTS)

### PLTS 299

**Experimental Offering in Plant Science** **.5-4 Units**

*Prerequisite: None*

*Hours: 18 hours LEC ; 54 hours LAB*

### PLTS 300

**Introduction to Plant Science** **3 Units**

*Prerequisite: None*

*General Education: AA/AS Area IV*

*Course Transferable to UC/CSU*

*Hours: 36 hours LEC ; 54 hours LAB*

This course is designed to provide the students with a working knowledge of the fundamental structures and processes of plants. Principles to be applied cover plant structures, physiology, heredity, environmental relationship to growth, adaptation, and management of crops. Techniques of research, exploration of plant growth, and identification of economical crops will be included.

### PLTS 310

**Soils and Plant Nutrition** **3 Units**

*Same As: HORT 302*

*Prerequisite: None*

*Advisory: HORT 300*

*General Education: AA/AS Area IV*

*Course Transferable to UC/CSU*

*Hours: 36 hours LEC ; 54 hours LAB*

This course provides a basic knowledge of the physical, chemical, and biological properties of soils. The course includes factors of: fundamental soil properties, soil and plant relationships, principles of soil formation, fertilizers and soil management, salinity, pH, erosion management, and non-agricultural uses. This course is the same as HORT 302, and only one may be taken for credit. See "Cross-Listed Courses" in the catalog.

### PLTS 320

**Viticulture (Grape and Wine Production)** **3 Units**

*Prerequisite: None*

*Course Transferable to UC/CSU*

*Hours: 36 hours LEC ; 54 hours LAB*

Production of grapes, current status of grape and wine industry; classification of grapes and wines, history and development of wine industry. Principles and practices of vineyard selection, development, establishment and other cultural practices, including training and pruning. Principles of vine physiology and morphology as related to responses of cultural practices. Wine quality will also be explored. Vineyard management, health and economics will be included. Technological study of winery equipment, location, and operation; techniques in analyzing and evaluating grapes and wine will be made.

**PLTS 332**  
**Integrated Pest Management** **3 Units**  
*Prerequisite: None*  
*Advisory: PLTS 330 and 336*  
*Course Transferable to CSU*  
*Hours: 54 hours LEC*

This study of integrated pest management includes principles of controlling pests by biological, cultural, physical, mechanical, radiation phenomena, genetic resistance and chemical control methods. Cost and effects as related to ecosystem, society and economics will be included. Pest monitoring and examples of integrated pest management in local areas and California will be reviewed. As this is the trend for the future, students and growers, as well as pest control advisors, will find this study valuable, as well as an aid in preparing for state licensing as pest control advisors.

**PLTS 334**  
**Agriculture Chemicals/Safety and Calibration** **3 Units**  
*Prerequisite: None*  
*Advisory: PLTS 300*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC ; 54 hours LAB*

The purpose of this study is to train individuals in techniques of chemical application, and to provide for the proper, safe, and efficient use of pesticides essential for production of food and fiber and for the protection of public health and environment, pesticide clarification, laws and regulations, foundations, calibration of an types of equipment for ground application and effective pesticide placement. A must for students preparing for state licensing as a pest control applicator.

**PLTS 336**  
**Weeds and Weed Control** **3 Units**  
*Prerequisite: None*  
*Advisory: PLTS 300*  
*Course Transferable to CSU*  
*Hours: 36 hours LEC ; 54 hours LAB*

This course deals with the identification, life histories, and control of common, noxious and poisonous California weeds. The study will emphasize areas not included in the licensing procedures of agriculture pest control advisors and applicators. Fundamentals of chemical, biological, and physical control of weeds will be discussed.

**PLTS 495**  
**Independent Studies in Plant Science** **1-3 Units**  
*Prerequisite: None*  
*Course Transferable to CSU*  
*See UC Limitations & Counselor*  
*Hours: 18 hours LEC ; 54 hours LAB*

**PLTS 498**  
**Work Experience in Plant Science** **1-4 Units**  
*Prerequisite: None*  
*Course Transferable to CSU*  
*Hours: 300 hours LAB*

This course provides students with opportunities to develop marketable skills in preparation for employment or advancement within their current job. Course content will include understanding the application of education to the workforce; completion of required forms, which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. During the course of the semester, the student is required to fulfill an 18 hour orientation and 75 hours of related paid work experience, or 60 hours of unpaid work experience for one unit. An additional 75 or 60 hours of related work experience is required for each additional unit. The course may be taken again when there is new or expanded learning on the job for a maximum of 16 units.

**PLTS 499**  
**Experimental Offering in Plant Science** **.5-4 Units**  
*Prerequisite: None*  
*Course Transferable to CSU*  
*See UC Limitations & Counselor*  
*Hours: 18 hours LEC ; 54 hours LAB*