

# CREDIT COURSES

## AGRICULTURE

### **AG V03 - PLANT BIOLOGY - 3 Units**

Hours: 2 lecture, 3 laboratory weekly

This course is a study of the practical aspects of plant growth, environmental relationships, physiology, structures, function, reproduction, and evolution. Basic concepts of biology will be illustrated utilizing the identification and study of important economic crops. Independent study projects and field laboratories are required.

Field trips will be required. Formerly Ag 3. Transfer credit: CSU; UC. **CAN AG 8.**

### **AG V04 - SOIL AND WATER SCIENCE - 3 Units**

Hours: 2 lecture, 3 laboratory weekly

This course explores the scientific aspects of vegetative management as related to understanding physical, chemical and biological soil properties. Current water and irrigation topics including sources, quality, distribution and management to be reviewed. Analysis of plant nutrient needs and technical methods of evaluation and application will be discussed.

Field trips will be required. Formerly Ag 4. Transfer credit: CSU; UC. **CAN AG 14.**

### **AG V21 - INTRODUCTION TO PEST MANAGEMENT - 3 Units**

Hours: 3 lecture weekly

A survey of and orientation to current laws, regulations and licensing requirements affecting individuals, businesses and agencies involved in pest management programs. Emphasis is on safety, environmental issues, equipment use and preparation for state licensing and certification examinations. Participants will receive worker safety certification and will qualify for state examinations. Continuing education credit will be granted to licensed persons upon successful completion of course.

Field trips may be required. Formerly Ag 21. Transfer credit: CSU.

### **AG V22 - INSECTS AND DISEASES OF PLANTS - 3 Units**

Hours: 2 lecture, 3 laboratory weekly

This course includes the symptoms, identification and control of common insects and diseases as applied to agricultural and horticultural crops. Natural, cultural, mechanical and chemical controls are studied; and management techniques toward prevention of pest problems.

Field trips may be required. Formerly Ag 22. Transfer credit: CSU.

### **AG V23 - WEED, VERTEBRATE AND NEMATODE MANAGEMENT - 3 Units**

Hours: 3 lecture weekly

Students will learn to identify and develop management programs for common, noxious and poisonous California weeds. This course will review allergenic plants and various rodent, bird, and fish population problems. Emphasis will be on life habits, environmental concerns, damage, and control practices. Techniques for nematode sampling, recognition, and regulation will be discussed.

Field trips may be required. Formerly Ag 23. Transfer credit: CSU.

### **AG V54 - CONSERVATION OF NATURAL RESOURCES - 3 Units**

Hours: 3 lecture weekly

This course includes a consideration of the conservation issues of the renewable and nonrenewable natural resources. Included in this list are water, energy sources, air, soil, grasslands, forests, wildlife, agriculture factors and certain minerals. Methods and techniques of the subject are emphasized.

Field trips may be required. Formerly Ag 54. Transfer credit: CSU; UC.

### **AG V60A-Z - TOPICS IN AGRICULTURE - .5-6 Units**

Prerequisite: varies with topic

Hours: lecture and/or laboratory as required by unit formula

These courses consider topics not covered in detail by other agriculture offerings.

Field trips may be required. Transfer credit: determined by transfer institution.

### **AG V60A - GREENHOUSE INDUSTRY SKILLS I - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include basic facility design, economic efficiency measures, decontamination methods, asexual cultivation, and instrument function and validation. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

### **AG V60B - GREENHOUSE INDUSTRY SKILLS II - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include hydroponic facility design, physical and chemical pest control, contamination testing, specific instrument calibration, and appropriate governmental regulation compliances measures. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

### **AG V60C - GREENHOUSE INDUSTRY SKILLS III - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include meristem, tissue and seed cultivation, multi-test methods for production certification, and specific instrument troubleshooting. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

### **AG V60D - GREENHOUSE INDUSTRY SKILLS IV - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include good documentation practices as required by USDA, EPA, and FDA regulations, basic methods of plant genetic crossing and ag-bioengineering, and DNA and protein marker ID analysis as applied to agriculture. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

**AG V60E - GREENHOUSE INDUSTRY SKILLS V - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include basic hydroponic control system design, nutrient feed and waste control systems, reference source analysis, proficiency access, waste water testing as required by governmental agencies, and appropriate instrument function and validation. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

**AG V60F - GREENHOUSE INDUSTRY SKILLS VI - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include basic lab preparatory facility design, sterile tissue culture media preparation, aseptic plant tissue culture, and DNA and protein ID marker analysis as appropriate for industry standards. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

**AG V60G - GREENHOUSE INDUSTRY SKILLS VII - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will include basic facility design, economic efficiency measures as evidenced in field studies, observations of industry-utilized decontamination methods, industry examples of asexual cultivation, instrument function and validation as performed in local hydroponic-based industries. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

**AG V60H - GREENHOUSE INDUSTRY SKILLS VIII - 1 Unit**

Recommended preparation: AG V03, V04 and V22; BIOL V30; and HORT V30, V32, V40 and V49

Hours: .5 lecture, 1.5 laboratory weekly

An exploration of the greenhouse/nursery industry with special emphasis on hydroponics and greenhouse science. This course will teach the ability to solve problems using single variable analysis, calibrate different instruments to industry specifications, identify appropriate governmental regulations for specific situations, and perform appropriate DNA and protein ID analysis. Required safety items include: lab coat, gloves and ANZI Z87.1 safety glasses.

Field trips may be required. Offered on a credit/no credit basis only.

**AG V88 - AGRICULTURE WORKSHOPS - .5-10 Units**

Prerequisite: varies with topic

Hours: lecture and/or laboratory as required by unit formula.

Designed to meet specific needs of the college and community, as required and requested by persons whose needs in this area are not met by present course offerings.

Fees may be required. Courses with same title may not be repeated; may be taken for a maximum of 4 times. Formerly AG V89.

**AG V90 - DIRECTED STUDIES IN AGRICULTURE - 1-4 Units**

Prerequisite: varies with topic

Hours: lecture and/or laboratory as required by unit formula

This course offers specialized study opportunities for students with intermediate skills, who wish to pursue projects not included in the regular curriculum. Students are accepted only by written project proposal approved by the discipline prior to enrollment.

Field trips may be required. May be taken for a maximum of 4 times not to exceed 6 units. Formerly Ag 90. Transfer credit: CSU.