HORT 72 Course Outline as of Fall 2012

CATALOG INFORMATION

Dept and Nbr: HORT 72 Title: GREENHOUSE PRODUCTION
Full Title: Greenhouse Production
Last Reviewed: 11/25/2024

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	AG 92.3

Catalog Description:
Analysis, description, and operation of greenhouses and other structures and facilities as they relate to floriculture. Included are: relationships of light, temperature, moisture, aeration, humidity, and fertility of floricultural crops; identification and investigation of major greenhouse grown crops including foliage plants, flowering potted plants, bedding plants, cut flowers, color and specialty crops; creating and implementing several cropping plans for floriculture plants and products.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: Analysis, description, and operation of greenhouses and other structures and facilities as they relate to floriculture. Included are: relationships of light, temperature, moisture, aeration, humidity, and fertility of floricultural crops; identification and investigation of major

greenhouse grown crops including foliage plants, flowering potted plants, bedding plants, cut flowers, color and specialty crops; creating and implementing several cropping plans for floriculture plants and products. (Grade Only)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**			Effective:	Inactive:
CSU GE:	**Transfer Area**			Effective:	Inactive:
IGETC:	**Transfer Area**			Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Spring 1985	Inactive:	
UC Transfer:		Effective:		Inactive:	

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course, students will be able to:
1. Describe how the floriculture industry in California functions.
2. Outline environmental factors affecting plant growth.
3. Manipulate the growth environment for efficient use of resources and facilities.
4. Identify selected plants from the various categories of floriculture crops.
5. Identify markets for floriculture products and market crops grown by the class.
6. Propagate, grow and market floriculture products for specific sale dates.
7. Discuss factors affecting plant growth.
8. Describe facilities and equipment used in growing floriculture crops.
9. Apply propagation principles involved in the production of floriculture crops.
10. Identify and properly utilize a variety of growing media.
11. Describe factors affecting plant fertility and demonstrate proper fertilizer application methods.
12. Discuss pests and diseases of floriculture crops.
13. The student will demonstrate manual skill in the following areas:
    a. Planting seed
    b. Spotting off and transplanting
    c. Pest and disease control
    d. Watering crops properly
    e. Development of specialty products. e.g. moss baskets, hanging plants
    f. Perform tests important to crop production. e.g. pH, salinity
    g. Handling and applying fertilizers

Topics and Scope:

I. Basic introduction to the floriculture industry.
II. Environmental factors affecting plant growth
  A. Light
  B. Temperature
  C. Humidity
  D. Moisture
  E. Air quality
  F. Photoperiod
III. Manipulation of environment
  A. Coldframes, hotbeds, greenhouses, shade houses, etc.
  B. Glazing materials for the above
  C. Heating, Cooling and ventilating growing facilities
  D. Manipulating humidity, fertility, air quality and soil moisture
  E. Hardening off product
IV. Propagation, and production of various floriculture crops
  A. Potted plants -- foliage
  B. Potted plants -- flower
  C. Bedding plant production
  D. Specialty floriculture crop production
V. Media and containers for rooting, growing and marketing floriculture crops
  A. Media for vegetative and seed propagation.
  B. Growing media for floriculture crops.
  C. Containers used for floriculture crops
VI. Soil fertility
  A. Essential plant food elements
  B. Fertilizers
  C. Ways to deliver fertilizer to your plants
  D. Salinity and pH: how they affect the growing media
VII. Pests and diseases of floriculture crops.
VIII. Floriculture Crop Production

Assignment:

1. 10-15-page term paper and oral report on selected greenhouse-grown crop.
2. Cropping plan and implementation for floriculture plants and products.
3. 6 industry field trips with 2-page report for each summarizing production data.
4. Field work, including planting, media mixing, pinching, deadheading, watering, and fertilizing.
5. 5-10 pages reading per week.
4. Complete homework problems, including calculating materials, production and labor costs for an assigned crop.
5. Conduct research and complete written exercise on production timelines for a foliage crop, a bedding crop, and/or a potted color crop, as assigned..
6. 2-3 tests and a final exam.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Field trip reports; term paper	Writing 10 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Cropping plans; homework problems; written exercise on production timelines	Problem solving 10 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Field work	Skill Demonstrations 5 - 20%

Exams: All forms of formal testing, other than skill performance exams.

Tests and final exam: multiple choice, true/false, matching items, completion	Exams 30 - 60%

Other: Includes any assessment tools that do not logically fit into the above categories.

Field trip participation; oral report	Other Category 10 - 30%

Representative Textbooks and Materials:

Boodley, James W. The Commercial Greenhouse. Del Mar, NY. 2008
Nelson, Paul V. Greenhouse Operation and Management (7th Edition). Prentice-Hall, NJ. 2011
Ball, Vic. Ball Red Book. Ball, IL. 1998 (classic)
Reed, David Wm. Water, Media, and Nutrition for Greenhouse Crops:A Growers Guide. Ball, IL 1996 (classic)