

## COURSE OUTLINE

### I. CATALOG STATEMENT

#### A. Plant Science 4 - Orchard Management

B. An overview of orchard crop management in California with an emphasis on those grown in the Central Valley. Subjects covered include: orchard site development, variety characteristics and selection, orchard physiology, pest management, pruning, fertility management, irrigation management, harvest, and marketing.

C. Time: 2 lecture and 3 laboratory hours per week.

D. Units: 3

### II. TEXTBOOKS

A. Peaches, Plums, and Nectarines : Growing and Handling for Fresh Market.  
University of California. Publication 3331.

### III. DESCRIPTION OF EVALUATION PROCEDURES

A. The final grade for the course will be determined by the following:

1.	Assignments/Quizzes	200
2.	Laboratory Assignments & Participation	200
3.	Examinations	<u>600</u>
	Total	1000

B. The final grading scale for the course will be as follows:

1. 90% of the possible points = A
2. 80% of the possible points = B
3. 70% of the possible points = C
4. 60% of the possible points = D
5. 50% of the possible points = F

C. Attendance: Regular attendance is required for class credit. Excessive absences may affect final grades. Examinations must be reconciled within 1 week and arranged by the student. Missed quizzes will not be taken later. Late assignments will be accepted up to 1 week late for a 10% penalty.

### **Tentative Lecture Topic Schedule**

<b><u>Date</u></b>	<b><u>Topics</u></b>
1/12	Introduction/Administration
1/14	Introduction/Varieties/Rootstocks
1/19	<b>Holiday - No Class</b>
1/21	Propagation
1/26	Orchard Design
1/28	Training & Pruning
2/2	Growth & Development
2/4	Growth & Development
2/9	Photosynthesis & Respiration
2/11	Photosynthesis & Respiration
2/16	<b>Holiday - No Class</b>
2/18	Review
2/23	<b>Examination I</b>
2/25	Dormancy & Plant Hardiness
3/2	Pollination/Flowering
3/4	Fruit Thinning/Tree Girdling
3/9	Soil & Water Analysis
3/11	Soil & Water Analysis
3/16	Mineral Nutrition
3/18	Mineral Nutrition
3/23	Mineral Nutrition
3/25	Orchard Fertilization
3/30	Orchard Fertilization/Review
4/1	<b>Examination II</b>
4/6	<b>Spring Break - No Class</b>
4/8	<b>Spring Break - No Class</b>
4/13	Irrigation Management
4/15	Irrigation Management
4/20	Irrigation Management
4/22	Irrigation Management
4/27	Integrated Pest Management
4/29	Insect & Mite Pest Management
5/4	Orchard Diseases
5/6	Nematodes
5/11	Harvesting & Marketing
5/13	Harvesting & Marketing
5/	<b>Final:</b>

## **LABORATORY SCHEDULE**

1. Orchard - Twig ID / Orchards Inspection
2. Twig ID Test / Orchard Land Measurements / Orchard Layout
3. Peach & Nectarine Pruning
4. Plum Pruning
5. Grafting
6. Nursery Field Trip
7. Orchard Sprayer Calibration
8. Flower, Bud, & Stem Dissection
9. Soil & Irrigation Water Quality
10. Orchard Soil Analysis & Management
11. Fruit Thinning & Tree Girdling
12. Orchard Leaf Analysis Interpretations
13. Water Budgeting
14. Irrigation System Evaluation
15. Insects & Mites
16. Nematodes - Kearney Ag Center
17. Packing House Field Trip