

**Plant Science 1: Introduction to Plant Science
Course Information**

Catalog Description

The purpose of this course is to introduce the principles and practices of plant science. Topics include cell and plant structures, reproduction, and physiology, as they relate to management of crops for food, fiber, shelter, and recreation. On completion of the course, the student will be: (1) able to understand the importance of plants to society, animals, and the environment, (2) aware of the problems, opportunities, and crop production regions of California Agriculture, (3) identify plant organs, tissues, and life cycles, (4) comprehend the practical aspects of photosynthesis and the management schemes to maximize photosynthesis, (5) familiar with the relationships of plants with other organisms such as insects, diseases, and beneficial species. Laboratory exercises will cover plant anatomy, physiology, identification, and propagation.

Textbook

Hartmann, H.T., Kofranek, A.M., Rubatzky, V.E., and Flocker, W.J. 1988.

Plant Science: Growth, Development, and Utilization of Cultivated Plants. 2nd ed. Prentice-Hall, Englewood Cliffs, NJ.

Assignments and Grading

Three major tests will be given that correlate to the assigned readings and course lecture notes. Quizzes will be given weekly on the discussed subject matter.

		Point Distribution		
Lecture:	Quizzes		200	
	2 Midterms		300	
	Final Exam		200	
Laboratory:	Participation		300	
1000				
90% = A	80% = B	70% = C	60% = D	Less = F

Office Hours

LH2

KRCC
Smith

LAND Department
Plant Science 1

Lecture Schedule

<u>Week</u>	<u>Topic</u>	<u>Reading Assignment</u>
1	Introduction Role Of Plants	Chapter 1
2	Plant Structure	Chapter 2
3	Plant Classification	Chapter 3
4	Origin of Plants	Chapter 4
5	Plant Propagation	Chapter 5
6	Review & Midterm	
7	Plant Growth & Reproduction	Chapter 6
8	Plant Growth & Reproduction	
9	Photosynthesis Respiration, & Translocation	Chapter 7
10	Photosynthesis Respiration, & Translocation	
11	Review & Midterm	
12	Soil & Soil Water	Chapter 8
13	Soil & Soil Water	
14	Soil & Water Management and Mineral Nutrition	Chapter 9
15	Soil & Water Management and Mineral Nutrition	
16	Climatic Influences on Crop Production	Chapter 10
17	Biological Competitors of Plants	Chapter 11
18	Review & Final Exam	

Laboratory Schedule

<u>Week</u>	<u>Topic</u>
1	Microscope Exercise Laboratory Setups Seeds Bean Seedlings Tomato Seedlings Corn Seedlings Garbanzo Beans Mixed Plant Pots
2	Holiday
3	Plant Cells
4	Plant Tissues
5	Seeds
6	Holiday
7	Roots and Seedlings
8	Setup Nutrient Deficiency Study
9	Stems and Twigs
10	Leaves
11	Flowers Emasculation Exercise
12	Propagation
13	Fruits
14	Field Trip - Nursery
15	Complete Nutrient Deficiency Study
16	Farm Laboratory Exercise
17	Insects