

**AG 120 Plant Science  
3 credits**

**INSTRUCTOR:** Ringuette  
**OFFICE:** Uluwehi  
**OFFICE HOURS:**  
**TELEPHONE:** 236-9265  
**EFFECTIVE DATE:** Fall 2014

**WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.*

**CATALOG DESCRIPTION**

The study of plant science, morphology, anatomy, physiology classification, growth, growth regulators, and propagation. Students are required to write a 10 to 15 page research report. (2 hrs. lect.; 2 hrs. lect./lab.)

WCC: DB

The student learning outcomes are:

- Describe and explain general plant structure and function in relation to plant growth and development.
- Demonstrate knowledge of horticultural principles in the cultivation of plants.
- Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives.
- Research and report on a horticultural plant.

**Activities Required at Scheduled Times Other Than Class Times**

None

**STUDENT LEARNING OUTCOMES**

The student learning outcomes for the course are:

1. Describe and explain general plant structure and function in relation to plant growth and development.
2. Demonstrate knowledge of horticultural principles in the cultivation of plants.
3. Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives.
4. Organize and synthesize technical information and make concise written and oral reports

## COURSE CONTENT

<u>Course content</u>	<u>Course SLO</u>	<u>Program SLO</u>
1. Impact of Plants on the Environment,	(3)	
2. Origins of Agriculture	(3)	
3. The Cell	(1)	
4. Plant Tissues	(1)	
5. Plant Organs and Functions	(1)	
6. Cell Reproduction	(1)	
7. Photosynthesis	(1 & 2)	
8. Respiration	(1&2)	
9. Soil	(2)	4
9. Sexual Propagation	(2)	1
10. Asexual Propagation	(2)	1
11. Plant Nutrition	(2)	1
12. Commercial Plant Production	(3)	

### *Concepts or Topics*

1. Impact of Plants on the Environment, Man & Society (3)
2. Origins of Agriculture
3. The Cell
4. Plant Tissues
5. Plant Organs and Functions
6. Cell Reproduction
7. Photosynthesis
8. Respiration
9. Sexual Propagation
10. Asexual Propagation
11. Plant Nutrition
12. Commercial Plant Production

### *Skills or Competencies*

1. Locate information.
2. Distinguish relevant and reliable information.
3. Identify plant structures.
4. Describe a production system for a crop or agricultural enterprise.
5. Determine what appropriate propagation methods would be used for a given crop.
6. Recognize best management practices for a given crop.

## COURSE TASKS

1. Use objective tests, essay questions or research/term papers to evaluate student's ability to explain or identify plant structures or functions.
2. Use objective tests, essay questions, research/term papers or applied projects to evaluate student's knowledge of horticulture principles.
3. Use objective tests, essay questions, research/term papers, case studies, class presentations or applied projects to evaluate student's comprehension of commercial agricultural enterprises and their impact on the state's economy.
4. A requirement of this course is to write a 10-15 page research report. The minimum length of the report will be 10 pages and the maximum length will be 15 pages. The number of pages counted for this report will only be prose, i.e. Title page, reference page etc. will not count in the total. All reports will be typed out with a maximum font size of 14 and double spaced with 1 inch margins. The report shall be footnoted and have a bibliography (MLA format). You are required to use a minimum of six references, one reference must come from each of the following sources: a journal/periodical, internet, textbook, and personal interview. The topic of this report must be approved by the instructor. You will also give a 5 to 10 minute oral presentation of your report at the end of the course to the class.

## ASSESSMENT TASKS AND GRADING

### METHODS OF EVALUATION:

Examinations: 60%

Projects: 30%

Participation 10%

## Additional Information

### STUDENT RESPONSIBILITY

1. Students unable to be present on the day of the exam are required to notify the instructor at least one day prior to the exam day. It is the responsibility of the student to make up any exams and or classes missed.
2. Students absent from class will be held responsible for the material covered in class and any announcements made in class.

## DISABILITIES ACCOMMODATION STATEMENT

*If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, [lemke@hawaii.edu](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.*