

# O.H. 120 - Fundamentals of Ornamental Horticulture Section 1521 - 3 Units - 17 weeks

# Fall Semester 2017

Room M-105 (Lecture) Room M-105 (Lab)

Lecture: Wednesday 10:00am-11:50pm Lab: Wednesday 12:00pm-2:50pm

**Instructor:** Tiffany Faulstich, LEED Green Associate

email: <a href="mailto:tiffany.faulstich@gcccd.edu">tiffany.faulstich@gcccd.edu</a> Department Web Page: <a href="mailto:www.cuyamaca.edu/people/tiffany-faulstich/default.aspx">www.cuyamaca.edu/people/tiffany-faulstich/default.aspx</a>

Office Hours: by appointment with 24 hrs. notice.

Texts: The text book is highly suggested but not required. Search the internet for used copies or

Order your books from the bookstore online at: http://cuyamaca.bkstore.com/bkstore/content

Botany for Gardeners, Third Edition, Brian Capon (Available in the Cuyamaca College Bookstore)

Syllabus: The OH 120 Syllabus is a series of handouts, web links, lecture and lab notes and power point

slides used in class. These will be posted weekly on Blackboard.

Slides will be posted on Blackboard in a weekly folder prior to lecture. <u>Prior to each class</u>, students

shall 1) read through and/or print all items and 2) complete any homework/lab worksheets

posted to our weekly folder and 3) assigned text reading from class schedule.

Prerequisites: None

**Additional Required Materials:** 1) Appropriate work clothes for the lab-long pants and closed toe shoes.

2) Clipboard for taking notes in the field.

3) Access to a computer with internet.

4) Water bottle, gloves, sunscreen and sun hat are highly recommended.

On campus computers, printing and support are available at the Tech Mall. http://www.cuyamaca.edu/academics/support/computer-labs/tech-mall.aspx

Course Description: This course is designed to give a basic understanding of plant structure and function as it relates to ornamental horticulture. It will also give an introduction to soil, plant and water relationships as well as cover the fundamentals of mineral nutrition for plants. The lab portion of the class will cover plant anatomy concepts, pruning techniques, planting techniques, as well as an introduction to irrigation installation, plant propagation fundamentals, and landscape construction.

Grades will be determined on the following basis:

A = 93% -100% C + = 77-79.99%

A = 90-92.99% C = 70-76.99%

B + = 87-89.99% D = 60-69.99%

B = 83-86.99% F = 59.99% or lower

B = 80-82.99%

Quizzes -	Approximately Every Other Week on material covered in lecture and lab	
	to date (7 quizzes-points vary - See schedule for dates)	<b>50</b> %
	(Note: There will NOT be a makeup given for the individual quizzes.	
	Instead the lowest quiz score will be dropped)	
Final Exam	(Points vary)	<b>25</b> %
Lab Attend	lance and Participation (200 total points lab)	25%
	Total	100%

Class Attendance: Attendance in the lectures and participation in the lab activities is important to learning the material covered in this course. Lab: A total of 200 attendance and participation points are possible. Students will receive 10 points for each lab session (16 total lab sessions) where the student does not arrive late or leave early, and has an active participation in lab activities. Late arrivals and/or early departures will result in a reduction of at least 5 lab points. Lack of participation will result in point deductions as judged by the instructor. Completed weekly lab worksheets are due at the end of the semester with 40 total points possible.

Participation grade is derived from:

- 1) Your level of participation in group and individual lab activities.
- 2) Preparation for the lab including the acquisition of lab materials and proper attire.
- 3) Completion of any lab worksheets. All lab worksheets will be turned in by each student at the end of the semester in a completed Lab Worksheet Folder. 160 points total for individual labs, and 40 points for the completed Lab Worksheet Folder, together making up 25% of the total course grade. Lab Worksheets for any missed lab will not be accepted.
- 4) The following of all safety procedures and the use of all required safety equipment. Replacement credit for missed labs is only possible under certain extreme conditions, and by advanced approval of the instructor.

### **E-Mail Addresses**

I will send emails via Blackboard to students for reminders of assignments, tests or other information. I will send email notifications of last minute class cancellations for unforeseen reasons. Please check with your web advisor account to be sure that the listed email address is the most appropriate.

#### Web Advisor

Final course grades will be available on web advisor. Students will need to access their web advisor account in order to learn their course grade.

#### Blackboard

Most of the course material will be available to students through Blackboard, including the lecture slide shows. Login and check Blackboard weekly. Make sure your email address is correct.

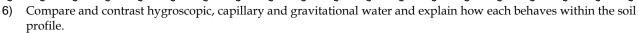
### **Student Drop Responsibility**: (Excerpt from the college catalog)

"It is the student's responsibility to drop courses they are no longer attending. If a course is not officially dropped, you may receive an "F" for the course." Instructor reserves the right to drop any student who has missed three (3) consecutive courses without notification.

#### **Course Objectives**

Students that successfully complete the course will be able to:

- 1) Compare and contrast monocots, dicots and gymnosperms based on observable characteristics of vascular systems, root and stem tissues, and leaf and flower structures.
- 2) Describe major plant tissues including xylem, phloem, meristematic, and supporting tissues, and explain each tissues physiological function within the larger plant system.
- 3) Differentiate between various soil types based on texture and structure.
- 4) Utilize soil properties learned in class to distinguish between A, B, C & R soil horizons.
- 5) Compare and contrast the effect on plants from high and low levels of soil pH, soluble salts (total dissolved salts) and sodium, and specify correction or management activities for adverse soil conditions including alkaline and acid soils, saline soils, sodic soils, calcareous soils.



- Describe the movement of water through the soil profile and analyze the effects of irrigation practices on soil moisture content.
- 8) Based on the system learned in class, classify the essential mineral nutrients as macronutrients, micronutrients, and evaluate plant characteristics to determine if symptoms are due to mineral nutrient deficiencies.
- 9) Based on established horticultural practices, analyze tree structure and demonstrate appropriate pruning for structure and form.
- 10) Operate a skid steer loader and other landscape equipment based on prescribed safety standards.
- 11) Using techniques established in class, apply proper planting and transplanting techniques on seedlings and container plants, and demonstrate how to propagate plants by cutting and division.

## **Student Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1) Demonstrate an understanding of basic botanical principles.
- 2) Demonstrate an understanding of basic soil principles.
- 3) Demonstrate practical knowledge in the safe operation of horticultural equipment.
- 4) Demonstrate an understanding of basic horticultural field practices.

#### **Policy Statements:**

- 1) Instructor reserves the right to adjust course content, assignments and testing instruments,
- 2) Student is responsible for all information and assignments missed due to late adds, tardiness and absences,
- 3) Student is responsible for working in a safe manner, using appropriate safety aids and informing instruction of unsafe conditions,
- 4) If a student decides to drop this class it is the student's responsibility to fill out the appropriate paperwork,
- 5) If you have a disability, or feel you might have a disability, you should contact the Disabled Students' Programs & Services (DSPS) office (A-103) or phone 660-4239. Students requesting accommodations should contact the DSPS office. <a href="http://www.cuyamaca.edu/services/dsps/default.aspx">http://www.cuyamaca.edu/services/dsps/default.aspx</a>
- 6) Students may audio tape record lectures. Student may not use the tapes for any purpose other than those of the class. Student must erase or destroy tapes at the end of the semester. Instructor may change or update information on tapes at any time.
- 7) Instructor reserves the right to photograph/reproduce all work produced for this class.
- 8) Instructor reserves the right to adjust all calendar dates.
- 9) Student will not be allowed to audit classes under any circumstances.
- 10) This course adheres to the policies outlined in the Cuyamaca College catalog. For further information, see Academic Policies stated in the catalog.
- 11) Cell phone/tablet/laptop policy: <u>Class and lab are both no phone zones. You may be asked to leave class and have lab points deducted if cell phones are in use.</u> If you require a device for note taking, please check with me prior to using the device.



Week	Date	Lecture Topic/ Reading Assignment	QUIZZES/ TENTATIVE Lab Activity
1	August 23	Introduction, Grading, Course Overview Plant Anatomy, Plant Classification	Facility Tour
2	August 30	Plant Structure – Roots Pages 23-26, 37-41, 59-61, 77—80, 124-128.	Begin Root/Stem/Leaf Model Plant Propagation: Seeds
3	September 6	Roots continued Stem Structure and Function Pages 41-50, 62-76, 120-123, 128-140	QUIZ #1 Maintenance & Pruning Activities
4	September 13	Stems continued	Equipment Training
5	September 20	Leaf Structure Pages 50-55	QUIZ #2 Planting & Pruning Activities Set up Mineral Nutrition Lab
6	September 27	Flower Structure Pages 162-166, 195-215 Pages 215-239, 143-144	Flower Anatomy: Microscope Activity Bailey Key
7	October 4	Tree Anatomy - CODIT	QUIZ #3 Training Young Trees
8	October 11	Nutrients and Their Uses	Plant Propagation: Cuttings & Divisions
9	October 18	Soil Texture & Structure Soil Microbiology	QUIZ #4 Soil Texture Activity Transplanting
10	October 25	Soil Chemistry pH and Soluble Salts Pages 179-181	Soil Testing pH Adjusters/Calculations
11	November 1	Soil Amendments	QUIZ #5 Composting Amendment Quantities
12	November 8	Mineral Nutrition Fertilizers Pages 158-163	Fertilizers: Calculations, Calibration Activities
13	November 15	Soil Water and Irrigation	QUIZ #6 Irrigation Systems: Components & Operation
14	November 22	Irrigation Scheduling	Irrigation Systems: Assembly & Scheduling

Week	Date	Lecture Topic Reading Assignment	QUIZZES Lab Activity
15	November 29	TBA	QUIZ #7 Transplanting
16	December 6	Group Review for Final Exam	Rose & Fruit Tree Pruning
17	December 13	FINAL EXAM 10:00am-11:50am	Turn in Lab Worksheet Folder @ beginning of class

Due to weather or other uncertainties, the following are <u>proposed</u> lab activities and <u>subject to change</u>. **Please wear work clothes and closed toe shoes or boots (not sandals) to each lab class.** Students who do not wear appropriate lab clothing and shoes shall receive a minimum of 2 points off of the day's lab attendance and participation grade. There are lockers available in the men's and women's locker rooms for your use.

Facilities tour
Plant Classification
Root, Stem & Leaf Structure
Plant Propagation
Flower Anatomy
Soil Classes /Soil Texture
Composting
Soil Testing
Fertilizer Calculations, Calibration & Application

Equipment Training
Fall Planting
Irrigation Components & Assembly
Perennial, Shrub & Rose Pruning
Tree Pruning
Diagnostic Walk
Soil Amendments

### **Course Related Important Dates**

### http://www.cuyamaca.edu/admissions/deadlines.asp

September 1: Last Day to Add/Drop Class without a "W" on Transcript

September 22: Last Day to apply for Pass / No Pass

October 13: Last Day to apply for Fall 2017 Degree/Certificate

November 9: Last day to drop semester-length classes



### **Study Tips**

- Exchange contact information with at least one other student. In case of an absence or need for a study partner(s), you will be able to contact someone in the class.
- Utilize on campus tutoring centers to brush up on study skills, math, writing, etc.
   It's FREE! http://www.cuyamaca.edu/academics/support/tutoring/default.aspx
- Coming prepared for class by completing all Weekly Folder readings and assignments. It makes it easier to participate in our discussion, complete lab work and ask questions.
- Use multiple modes for studying.....flash cards, lists, charts. Have friends and classmates quiz you.
- Set aside time for studying. ....at least 2-3 hours minimum per week for our class.
- Repetition and exposure.....the more you are exposed to the material and repeat it, the better you will retain the information.

## Help Desk

The <u>Help Desk</u> can assist students with troubleshooting technical difficulties associated with student accounts. Students may contact the help desk at <u>c-helpdesk@gcccd.edu</u> or call 619-660-4395. Students should press 2 for assistance.

#### **Tech Mall**

The Tech Mall provides support to currently enrolled students in the use of computers and software applications. Check out the website for hours and resources available: <a href="http://www.cuyamaca.edu/techmall/">http://www.cuyamaca.edu/techmall/</a>

# **Academic Resource Center (ARC)**

The <u>ARC (Academic Resource Center)</u> (formerly the General Tutoring Center) is located in C-102. Hours are 9:00am – 6:00pm on Monday – Thursday and 9:00am – 12:00pm on Friday. The ARC will be open the first week of the semester. Call 619-660-4306 for detailed information on available services.

#### **STEM Achievement Center**

Hours are 9:00am – 6:00pm on Monday – Thursday and 9:00am – 2:00pm on Friday. The STEM Center, located on the first floor of the H building, will be open the first week of the semester. Call 619-660-4396 for detailed information on available services.



## **Writing Center**

Hours are 9:00am – 6:00pm on Monday – Thursday and 10:00am – 3:00pm on Fridays. Please contact the Center, located in B-167, at 619-660-4463 for detailed information on available services.

## **Online Tutoring**

All students registered at Cuyamaca College have access to online tutoring through NetTutor. Online tutoring is available in a wide variety of subjects, 24/7, to supplement on-campus tutoring that the STEM Achievement Center and Academic Resource Center already provides. Click here for more information on how students can access this service.

## **Blackboard Support**

Students needing help with Blackboard can contact the Help Desk at 619-660-4395 or <a href="mailto:c-helpdesk@gcccd.edu">c-helpdesk@gcccd.edu</a>. Tutorials for students can be found at <a href="http://www.gcccd.edu/online/student/step-4-blackboard.html">http://www.gcccd.edu/online/student/step-4-blackboard.html</a>.

#### **Online Services**

Please encourage your online students to visit the **Online Learning** website at <a href="http://www.cuyamaca.edu/online/">http://www.cuyamaca.edu/online/</a>. This site includes a link to the District Online Success website as

well: <a href="http://www.gcccd.edu/online/">http://www.gcccd.edu/online/</a>. Please consider adding the Cuyamaca link to your syllabus and Blackboard container.

# Library

The Library is temporarily closed due to water damage. Most of the books in the library collection are not currently available. However, there are <u>Library Books Available for Checkout in L-103</u>. (Click on link.) There are also Reserve text books, calculators and Mac backpacks available for student check-out. Please Note: The books available for check-out are only a fraction of the entire library collection. If there is book you need that is not available in L-103, then an <u>Interlibrary Loan (ILL)</u>request can be made. Ask the Reference Librarian in the Tech Mall (E-121) for help.