



HOS 3020 – Principles of Horticultural Crop Production

3 credits

Fall Semester 2018

MWF Period 3, 9:35-10:25 AM

2316 Fifield

Instructors:

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Course Canvas Website: To be announced during the first week of class

Course Description:

The objective of this course is to provide the student with a basic understanding of the world, U.S. and Florida fruit and vegetable industries. Emphasis will be placed on production regions, biology, soils, nutrition, types of fruits and vegetables, site selection and planting, fruit and vegetable quality factors, propagation, pruning, pollination, flowering and fruit set, horticultural production practices and career opportunities.

Learning Outcomes:

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

- Discuss growth and development patterns for fruit and vegetable species.
- Explain production conditions and practices for fruit and vegetable crops and compare the various cultural systems.
- Develop management plans for soil fertility, irrigation, and pest control in fruit and vegetable production.
- Critically analyze data from the fruit and vegetable industries at the regional, national, and global levels.
- Discuss and evaluate different marketing strategies for fruit and vegetable crops.

Textbooks:

There is not a required textbook for this course. Lectures will be presented in PowerPoint available on the course website. The following textbooks are optional reference materials. They are placed on *Course Reserve* at Marston Science Library:

- 1) John M. Swiader and George W. Ware. 2002. Producing vegetable crops. Fifth edition. Interstate Publishers, Inc.
- 2) Vincent E. Rubatzky and Mas Yamaguchi. 2012. World vegetables: Principles, production and nutritive values. Second edition. Springer.
- 3) Donald N. Maynard and George J. Hochmuth. 2007. Knott's handbook for vegetable growers. Fifth edition. John Wiley & Sons, Inc.
- 4) D. Jackson, N. Looney, M. Morley-Bunker and G. Thiele. 2011. Temperate and Subtropical Fruit Production. CABI International.

Course Grade:

Exams 400 points
There will be four non-cumulative exams in the semester, two in the vegetables section and two in the fruits section. Exams 1-3 will take place during scheduled class periods. Exam 4 will take place during finals week. Each exam will be graded out of 100 points.

Quizzes 80 points
There will be eight online quizzes in the semester, four in the vegetables section and four in the fruits section. Each quiz will be timed to 10 minutes and can only be taken once. Students can refer to personal notes, slideshows, and other reference materials, but they must work individually. Each quiz will be graded out of 10 points.

Community Supported Agriculture and Open House Project 150 points
Hands-on application of the concepts covered in lectures will focus on the design and maintenance of community supported agriculture (CSA) plots in the Horticultural Sciences Teaching Garden. Students will work in teams to grow fruits and vegetables for the duration of the semester. Students will showcase their CSA plots during an open house scheduled for November 30.

Class Participation 50 points
At the beginning of every class, students will be chosen at random and asked to provide a 2-minute verbal summary of the previous lecture. Additionally, throughout the course there will be opportunities for students to ask or answer questions. Class interaction and class summaries will be graded out of 25 points according to the rubrics below. The sum of your class summary and class interaction scores will be used as your participation grade.

Participation frequency	Score	Participation quality	Score
Never	5	Poor	5
Rarely	10	Fair	10
Sometimes	15	Good	15
Often	20	Very good	20
Always	25	Excellent	25

All points earned in the course will be summed to calculate your final grade. Letter grades will be based on the performance of each student relative to the following standard percentages (%):

100-93	A	76-73	C
92-90	A-	72-70	C-
89-87	B+	69-67	D+
86-83	B	66-63	D
82-80	B-	62-60	D-
79-77	C+	59-00	E

Please feel free to discuss your grades with us at any time during the semester. Additional information on current UF grading policies for assigning grade points can be found here:

- *Grading policy*, www.catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Course Policies

Attendance and Make-up Policy

You are encouraged to attend every lecture and complete quizzes and assignments by the posted deadlines. Absences will be excused and late assignments will be graded only for documented emergencies as per UF's attendance policy.

Additional information on class attendance and make-up exams, assignments and other work can be found here:

- *UF Attendance policy*, <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Technical Difficulties

If you are experiencing technical difficulties with Canvas, you should immediately contact the UF Help Desk. This will generate a ticket number, which documents the date and time of your technical difficulty. Any requests to make-up late work due to technical difficulties must be accompanied by this ticket number.

- *UF Help Desk*, HUB 132, (352) 392-4357, www.lss.at.ufl.edu/help.shtml

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action.

- For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken when appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

- *Disability Resource Center*, 0001 Reid Hall, (352) 392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *Counseling and Wellness Center*, 3190 Radio Road, (352) 392-1575, www.counseling.ufl.edu
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- *U Matter We Care*, www.umatter.ufl.edu

Additionally, if you would like orientation on choosing a major, finding an internship, or planning your career, we encourage you to use the university's on-campus resources.

- *Career Resource Center*, CR-100 Reitz Union, (352) 392-1601, <https://career.ufl.edu/>

Course Evaluation Process

Student assessment of instruction is an important part of the effort to improve teaching and learning. At the end of the semester, you are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at:

- *Course evaluations*, www.evaluations.ufl.edu

Evaluations are typically open during the last two or three weeks of the semester. You will be notified of the specific times when evaluations for this course are open. Summary results of these assessments are available to students at:

- *Evaluations summary*, www.evaluations.ufl.edu/results

Student Complaints

You can file and resolve any complaints about your experience in this course in the following site:

- *Written student complaints*, www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Tentative Lecture Schedule
HOS 3020 – Principles of Horticultural Crop Production
Fall 2018

Week No.	Date	Topic
1	Aug 22	Introduction and course requirements
	Aug 24	Vegetables and the vegetable industry; CSA Project introduction
2	Aug 27	World and U.S. fruit production
	Aug 29	Classifying vegetables; CSA Project discussions
	Aug 31	Vegetable plant growth and development patterns
3	Sept 3	<i>Labor Day (No Class)</i>
	Sept 5	CSA Project Work in the Teaching Garden
	Sept 7	Vegetable growing conditions and general cultural practices
4	Sept 10	Assessing vegetable quality attributes
	Sept 12	Vegetable seeds and crop establishment
	Sept 14	Soil and nutrient management in vegetable production (I)
5	Sept 17	Soil and nutrient management in vegetable production (II)
	Sept 19	Irrigation systems; Fertilization calculations Q&A
	Sept 21	Breeding and improving vegetables
6	Sept 24	Exam 1
	Sept 26	Mulch use in vegetable production (Dr. Josh Freeman)
	Sept 28	CSA Project Work in the Teaching Garden
7	Oct 1	Vegetable grafting
	Oct 3	IPM and plant health management
	Oct 5	Extending the production season; Innovative technologies
8	Oct 8	CSA Project Work in the Teaching Garden
	Oct 10	Organic crop production
	Oct 12	Vegetable marketing; CSA garden tour

9	Oct 15	Developing sustainable vegetable systems
	Oct 17	Exam 2
	Oct 19	Climate effects on fruit production
10	Oct 22	Protected agriculture for fruit production
	Oct 24	Annual and perennial growth
	Oct 26	Fruit crop propagation
11	Oct 29	Grafting laboratory
	Oct 31	Juvenility and the ability to flower
	Nov 2	<i>Homecoming (No Class)</i>
12	Nov 5	Flower bud initiation
	Nov 7	Flowering and pollination
	Nov 9	Fruit growth and development
13	Nov 12	<i>Veterans Day (No Class)</i>
	Nov 14	Exam 3
	Nov 16	Food security and urban food systems - TBD
14	Nov 19	CSA Project Work in the Teaching Garden
	Nov 21	<i>Thanksgiving (No Class)</i>
	Nov 23	<i>Thanksgiving (No Class)</i>
15	Nov 26	Dormancy, cold acclimation and cold hardiness
	Nov 28	Groove, orchard, and vineyard design
	Nov 30	CSA day and Open House
16	Dec 3	Mechanization
	Dec 5	Breeding perennial crops: MAS and biotechnology
Finals week	Dec 12 12:30 PM	Exam 4