

HOS 3222C/HOS 6932 Syllabus
Greenhouse and Protected Crop Production
Spring 2014
(3 credits)

INSTRUCTOR AND COORDINATOR:

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CLASS MEETING TIMES AND LOCATION:

Monday: 1:55-2:45 pm, Wednesday: 1:55-3:50 pm, 2316 Fifield Hall

OFFICE HOURS: Wednesday 4:00-5:00 pm. Students unable to meet me at this time need to request an appointment, preferably by email.

COURSE DESCRIPTION: This course will present an overview of the world and local greenhouse vegetable industry, greenhouse structures and plant growing systems, irrigation and fertilization management using containers and soilless media, pests and diseases management, production of selected greenhouse-grown vegetable crops, and economics, marketing, and global competition.

LEARNING OBJECTIVES:

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

- Demonstrate a comprehensive understanding of the greenhouse and protected agriculture industry at local, national, and global levels.
- Compare and evaluate different protected structures used for high-value crop production.
- Discuss key components and practices of greenhouse and protected production and management systems.
- Develop management plans for a successful protected production operation that will address environmental and economic sustainability.
- Improve communication and team working skills through class presentations and collaborations with peers in class projects.

CLASS FORMAT: This is a team taught course consisting of lectures, demonstrations, hands-on activities, and field visits to commercial growers.

TEXT: There are no required textbooks for this course. Book chapters, journal articles, websites, videos, and other materials will be collectively used. **E-learning** (<https://lss.at.ufl.edu/>) is also used in this course to post lectures, reading materials, useful websites, video clips, discussions, and grades.

Please note that having access to the materials posted on E-learning is not an excuse for missing classes- YOU WILL BE RESPONSIBLE FOR ANY ADDITIONAL MATERIALS PRESENTED IN CLASS!

OTHER RESOURCES STUDENTS WILL NEED: 1) A three-ring notebook to keep notes, handouts, and other course materials, and 2) access to an internet-ready computer.

ATTENDANCE AND CLASS PARTICIPATION: Students are required to be present and participate in every class including class project and field trip activities. Regular attendance is necessary in order to gain a complete understanding of course materials and practice critical thinking skills. To establish an excused absence, please notify the course instructor as soon as possible if you will have to miss a class or field trip due to an emergency. **Attendance will be rewarded as: 100 points for 0 unexcused absence, 50 points for 1 or 2 unexcused absences, and 0 points for more than 2 unexcused absences.**

Students are expected to be respectful learners:

- Cell phones should be turned off or put on vibrate mode and should not be answered during class period. Non-emergency, in-class text messaging is not acceptable.
- No back row chatter. Classroom participation is encouraged, but private conversations between students will not be tolerated.
- Be on time. Tardiness will not be tolerated; if you must leave class early, notify the instructor ahead of time and sit near the exit.

Late Work: Unless arrangements have been made with the instructor, late work will not be accepted and therefore a grade of zero will be received by the student.

EXAMS: There are three exams. The third exam will be a comprehensive exam, i.e., it will cover the third portion of the course since exam 2 as well as basic concepts and topics tested in exams 1 and 2. Different types of questions may be included in the exams including but not limited to essays, short answers, matching, true/false, and multiple choice questions. Under the circumstance of having a true emergency which does not allow the student to attend the original exams as scheduled, a make-up exam can therefore be requested. **Only one make-up exam is allowed. The format of the make-up exam is at the instructor's discretion.**

GRADING:

Activity	Points possible
Exam 1	100
Exam 2	100
Exam 3	200
Field trip report	50
Class project	150
Attendance and participation	100

Total points = 700

- 93-100% = A
- 90-92% = A-
- 87-89% = B+
- 83-86% = B
- 80-82% = B-
- 77-79% = C+
- 73-76% = C
- 70-72% = C-
- 67-69% = D+

63-66% = D
60-62% = D-
< 60% = E

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Graduate students are required to complete additional assignments which will be announced during the semester.

ONLINE COURSE EVALUATION PROCESS: Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students 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 <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

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

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

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>.

Plagiarism Detection: The Turnitin service will be used to identify student submissions that contain unoriginal material. Your written assignments may be submitted to Turnitin for plagiarism detection and for no other purpose.

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.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/*
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

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 as appropriate.

Tentative Schedule
HOS 3222C/HOS 6932 – Greenhouse and Protected Crop Production
Spring 2014

Monday: 1:55-2:45 pm, Wednesday: 1:55-3:50 pm, 2316 Fifield Hall

Week	Day	Date	Topic
1	M	Jan 6	Welcome, syllabus, course introduction and discussion (Xin Zhao)
	W	Jan 8	Protected agriculture overview and structures (Dan Cantliffe)
2	M	Jan 13	Class project introduction and brainstorming (Xin Zhao)
	W	Jan 15	Structures for protected culture and crops in certain structures (Bob Hochmuth)
3	M	Jan 20	<i>No class (Martin Luther King Jr. Day)</i>
	W	Jan 22	Irrigation and fertilization (Dan Cantliffe)
4	M	Jan 27	Transplants (Dan Cantliffe)
	W	Jan 29	Soilless media choices with lab activity (Bob Hochmuth)
5	M	Feb 3	Exam 1
	W	Feb 5	Biological control of greenhouse pests (Lance Osborne)
6	M	Feb 10	Pest exclusion (Bob Hochmuth)
	W	Feb 12	Greenhouse production of cucumbers, squash and melons (Dan Cantliffe)
7	M	Feb 17	Greenhouse lighting basics (Chieri Kubota)
	W	Feb 19	<i>Class project activities</i>
8	M	Feb 24	Solar greenhouses (Xin Zhao)
	W	Feb 26	High tunnel production of horticultural crops (Xin Zhao)
9	M	Mar 3	<i>Spring break</i>
	W	Mar 5	
10	M	Mar 10	Exam 2
	W	Mar 12	Floating raft hydroponics and aquaponics (Richard Tyson)
11	M	Mar 17	<i>No class (class combined with March 31 class)</i>
	W	Mar 19	<i>Class project activities</i>
12	M	Mar 24	Integrated use of vegetable grafting in protected production – Lecture (Xin Zhao)
	W	Mar 26	Integrated use of vegetable grafting in protected production – Lab (Xin Zhao)
13	M	Mar 31	ALL DAY FIELD TRIP (<i>report due Monday, April 7</i>)

	W	Apr 2	Marketing and global competition (Dan Cantliffe)
14	M	Apr 7	Growing peppers and estimated costs and returns for greenhouse production (Dan Cantliffe)
	W	Apr 9	Using hydroponics and protected culture to meet market demands for specialty crops (Bob Hochmuth)
15	M	Apr 14	Postharvest handling and storage (Steve Sargent)
	W	Apr 16	Class project presentation (<i>Presentation assignment due Monday, April 14</i>)
16	M	Apr 21	Class project presentation; Review
	W	Apr 23	Exam 3