

Postharvest Technologies for Horticultural Crops **HOS 5330**

Thursdays, Periods 9 & 10 (4:05 – 5:55 PM, Eastern Time)

2318 Fifield Hall (section 0101) and via Zoom Meeting (section 0102, page 2)

Spring 2024 Course Syllabus

Instructors

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Professor

Office

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Office Hours – Sargent and Ritenour:

Thursdays 3:00-3:30 PM on class days by appointment.

Course Technical Assistant: Adrian Berry, M.S. (adberry@ufl.edu)

Catalog Description

Prerequisite:

HOS 5085 suggested. Open to graduate students (upper-division undergraduate students with instructor consent).

Description:

Intensive study of current technologies and procedures for harvesting and handling fresh fruit, vegetable, and ornamental crops grown in Florida.

Course Learning Objectives

- 1) To familiarize students with the current commercial methods used to harvest, pack, transport and market fresh horticultural crops grown in Florida, with emphasis on maintaining product quality and safety.
- 2) To prepare students to systematically evaluate and critically analyze these operations based on in-class lectures, speakers and course assignments.

Course Format, Expectations and Evaluation

The class will meet weekly prior to a 5-day field trip to central and south Florida during Spring Break. Students will self-divide into interdisciplinary teams and will work together on assignments designed to meet the course learning objectives.

Class website: <http://irrec.ifas.ufl.edu/postharvest/HOS5330.shtml>

Lecture Topics and Field Trips:

1. Postharvest Losses; Introduction to Systems Analysis
2. Postharvest Physiology for Horticultural Crops
3. Harvest and Handling Operations; Temperature Management
4. Sanitation and Food Safety

5. Storage and Shipping Operations; Postharvest Treatments
6. Field trip to local supermarket produce department
7. Spring Break field trip
8. In-class review/discussion of field trip
9. In-class presentations

Course grading:

- Course Notes Journal: Students will maintain a written record of pertinent information presented on the field trip. This will include a description of the operation, crops, handling methods, and their impacts on quality. Following the field trip, each team will assemble their team members' field trip notes and organize them into a written journal (MS Word format) that collates team members' field trip observations in a neatly organized and illustrated manner. (30% of grade)
- Technical Report: Each team will develop and write a technical report (MS Word format) on a predetermined technology using examples and details observed during the field trip and pertinent literature. The goal of the technical report is to describe how fresh produce quality is maintained (or lost) by the appropriate use (and misuse) of the selected technology. (40% of grade)
- PowerPoint Presentation: Each team will present their technical report to the class via a 15-minute PowerPoint presentation. (30% of grade)
- Participation in in-class discussions, field trip visits and group assignments, and is critical to successful completion of this course.

All assignments will be returned at the end of the semester.

Required Text (free online download)

U.S. Dept. of Agriculture Handbook 66. 2016. The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks. K.C. Gross, C.Y Wang and M. Saltveit (Eds.).

https://irrec.ifas.ufl.edu/postharvest/HOS_5085C/Reading%20Assignments/USDA%20HANDBOOK%2066.pdf

Recommended Text

Kader, A.A. (Ed.). 2002. Postharvest Technology of Horticultural Crops. Third Edition. Publication 3311. University of California, Division of Agriculture and Natural Resources. Oakland CA.

Supplemental materials are accessible on the course website; others will be provided by the instructors as necessary.

**Grading, Academic Honesty, Software Use, UF Counseling Services
and Services for Students with Disabilities**

Graduate Academic Regulations

Use this link to access guidelines for UF graduate students.

<https://gradcatalog.ufl.edu/graduate/regulations/>

Grades and Grade Points

For information on current UF policies for assigning grade points, see

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Attendance. Absences and Make-Up Work

Class attendance and field trip participation are required. University policies can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

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>.

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:

<https://sccr.dso.ufl.edu/students/student-conduct-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 as appropriate.

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,

<https://counseling.ufl.edu/>

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Training Programs
Community Provider Database

- Career Resource Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>

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, <https://disability.ufl.edu/>
