



UNIVERSITY OF
FLORIDA

IFAS

**TROPICAL FRUIT
PRODUCTION AND RESEARCH**
HOS 5555, 3 credits

30 June to 8 August, 2008

**Instructor: Dr. Jonathan H. Crane,
Tropical Fruit Crop Specialist**



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Target audience

This course offers graduate students, scientists, extension faculty, and other professionals (including experienced producers) an opportunity to increase their knowledge of tropical fruit crop horticulture and physiology.

Course location

The commercial tropical fruit crops industry of Florida is diverse and dynamic. The marine subtropical climate of peninsular Florida allows for the production of subtropical and tropical fruit crops. The numerous environmental stresses encountered in southern Florida (e.g., drought, floods, hurricanes, freezing temperatures) have been challenged successfully by producers and have provided a unique opportunity for University of Florida scientists to conduct applied and basic research on tropical fruit crops.

The course is taught at the Tropical Research and Education Center (TREC), Homestead, Florida, which is the only state supported tropical agricultural research center in the continental U.S.A. The research center is located on 65 ha and has offices, greenhouses, growth chambers, vegetable fields, and fruit orchards. There are 16 faculty members including horticulturists, plant physiologists, entomologists, plant pathologists, an agricultural economist, a hydrologist, and a soil and water scientist involved in research on traditional and tropical vegetable crops, ornamental crops, natural

resources, and tropical/subtropical fruit crops. The station regularly hosts graduate students, post docs, and visiting scientists. The TREC campus and the surrounding agricultural area provide an ideal environment for the study of tropical fruits.

Objectives of the class

1. To learn about horticultural practices for tropical fruit crop management, with emphasis on commercial crops grown in Florida. Aspects of applied research, and the physiological basis for horticultural practices used in crop production will be discussed.
2. To expose students to production practices and relevant current research through field visits to working orchards, nurseries, packinghouses, botanical gardens, and research/education institutions.
3. To instill an understanding and ability to apply the principles, concepts, and information from the class to production, research, and teaching situations relevant to each student.

Methods for teaching

1. Formal lectures, as well as, informal open discussions and question periods.
2. Written literature, slides, and videos will be used to enhance lectures and discussions.
3. Field visits to interact with production researchers, managers, orchardists, researchers, and extension faculty.
4. One or two assignments may be used to demonstrate useful production and research concepts.

Brief Course Description

Classes will be held Monday through Friday, beginning at 8:30 AM and ending between 4:00 PM to 7:00 PM daily. Typically, class lectures will be held in the mornings and field trips to commercial orchards, nurseries, and educational/research institutions will be made in the afternoon. In addition, video conferencing and use of the internet will be used to provide students and faculty opportunities to interact without the limitations of geographical distance.

The course will emphasize applied research and the physiological basis for horticultural practices for commercial tropical fruit crop production in Florida. Crops to be studied are avocado, mango, carambola, papaya, lychee, longan, mamey sapote, passionfruit, atemoya, sugar apple, guava and others. Subject matter will include crop adaptation and selection, orchard establishment, environmental stress physiology, applied crop physiology, and modern production methods. Guest lectures will be offered in tissue culture/biotechnology, insect and disease management, hydrology, agricultural economics, postharvest handling, genetics and plant breeding.

Accommodations and Transportation

Students must arrange their own transportation to and from Homestead, Florida at the beginning and end of the course. Unfortunately only two rooms will be available at TREC for a nominal fee. However, accommodations are Spartan and availability will be on a first come first serve basis. There

are many motels in the Homestead area, with a wide range in prices. You may wish to share a room with another student - those arrangements can be made during the first day of class. An arrangement has been made with the Everglades International Hostel in Florida City - not far from TREC. The proprietor will rent rooms at about \$100/week/student to our students taking the course. The website is at <http://evergladeshostel.com/> and their contact information is:

Everglades International Hostel
20 SW 2nd Ave., Florida City, Florida 33034
Tel: 1-800-372- 3874 or 305-248-1122,
fax.305-245-7622

Transport to and from the Hostel will be provided. Please contact me if you are interested in staying at the Hostel.

Student Qualifications

This course is designed for individuals with agricultural (e.g., horticulture, agronomy, botany) degrees and/or agricultural experience. All participants need to be competent in English. Further information on this course may be obtained at the web site <http://trec.ifas.ufl.edu/crane/TEACHING.HTM>

Course Fees and Registration

Students currently enrolled in the University of Florida should go through the usual procedures for registration and payment

of fees through Gainesville. Students not currently enrolled in the University may register on-line at <http://cals.ufl.edu/offcampus/nondegree.html> (then click on "Applications for non-degree status" or in Homestead at TREC as non-degree students during the first day of class. People, who want to audit the course, please contact Dr. Crane.

Registration fees are \$949.80 for Florida residents and \$2,840.37 for non-residents. Required textbooks must be purchased at a total cost of about \$220.00 (exact cost to be determined). All fees must be paid in U.S. currency.

Please contact Dr. Crane if you have any questions at tel: 305-246-7001 x.290 or email, jhcr@ufl.edu.

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