

**Course offering: TROPICAL FRUIT  
PRODUCTION AND RESEARCH**

**Code: HOS 5555; 3 credits**

**Dates: 27 June to 5 August, 2016**

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



University of Florida, IFAS

**Tropical Research and Education Center**

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For more information:

<http://trec.ifas.ufl.edu/crane/teaching.shtml>

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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, plant breeders, 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 guest lectures, 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

- Formal lectures, as well as, informal discussions and question periods.
- Written literature, PPT presentations, and videos will be used to enhance lectures and discussions.
- Field visits to interact with production researchers, managers, orchardists, researchers, and extension faculty.
- 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 may be used to provide students and faculty opportunities to interact without the limitations of geographical distance. There will be one 2-day trip to the west coast of Florida production area.

The course will emphasize applied research, 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, passion fruit, atemoya, pitaya, 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. If there is space, registered, degree-seeking UF students may stay on the TREC campus in student housing. Unfortunately, no rooms will be available for non-UF students. There are many motels in the

Homestead area, with a wide range in prices. To view, web-search 'hotels homestead florida' or 'hotels florida city florida'. 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 for a reduced accommodations rate with the Everglades International Hostel ([www.evergladeshostel.com](http://www.evergladeshostel.com)) in Florida City - not too far from TREC. The proprietor has offered rooms at a discount rate with every 5<sup>th</sup> night free to students taking the course. In order to get this rate, you must contact the hostel directly and indicate you will attend the *TREC-Tropical Fruit Course* and what your arrival and departure dates are. Make arrangements ahead of your arrival. The email address is [info@evergladeshostel.com](mailto:info@evergladeshostel.com) and phone 1-800-372-3874 or 305-248-1122; fax.305-245-7622.

Please contact me if you will be 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.shtml>



### Course Fees and Registration

Students currently enrolled in the University of Florida should go through the usual procedures for registration and payment of fees in Gainesville. Students not currently enrolled at UF may register through <http://www.registrar.ufl.edu/currents/transients2.html> as non-degree students. For questions contact the Registrar at 352-392-1374 or Curtis Smyder at 352-273-4781 or [curtisr@ufl.edu](mailto:curtisr@ufl.edu).

Course fees:

<u>Student status</u>	<u>Cost*</u>
In-state	\$1,592.07
Out-of-state	\$3,766.23
Florida residents 60+years-old auditing the course	All fees waived

\*, estimated as of 02-2016

Required textbooks must be purchased at a total cost of about \$185.00 (*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: 786-217-9271 or email, [jhcr@ufl.edu](mailto:jhcr@ufl.edu)



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