

**SYLLABUS**  
**AL-485 Tropical Fruit Horticulture**  
College of Natural and Applied Science  
University of Guam

**Instructor**

Jesse P. Bamba

[jbamba@triton.uog.edu](mailto:jbamba@triton.uog.edu)

Office hours: MWF 9:00 am- 11:00 am

Office: ALS room 105c, 735-2091

**Basic Information**

AL-485 Tropical Fruits Horticulture

Spring 2022 01/19/2022 – 05/20/2022

Four (4) credit hours

Lectures in ALS-125B, Monday and Wednesday, 9:35 am to 10:55 am

Lab in ALS-124, Tuesday, 11:10 am to 2:05 pm

**Course Description**

This course covers tropical fruits, their botany, taxonomy, and uses. The course includes a detailed study of the major fruit and their impact on life in the tropics. Emphasis is on propagation methods, choice of cultivar, cultural practices, fertilizer use, irrigation, and post-harvest handling. The lab will reinforce these concepts with field trips to fruit farms, UOG experiment stations, and hands-on propagation activities.

**Textbook/Computer Access**

No textbook is required, instead students will be expected to use their computers to access online resources, such as UOG-CNAS's website for extension publications (<http://cnas-re.uog.edu/#>) and the online edition of 'Fruits of Warm Climates' by Julia F. Morton, 1987, Miami, Florida. ( <https://www.hort.purdue.edu/newcrop/morton/index.html> )  
Students are also expected to maintain a binder for lecture notes and lab reports.

<u>Grading</u>	<u>Points</u>
Participation	100
Grower's guide draft (April 4 <sup>th</sup> , 2022)	50
Grower's guide written paper (May 10 <sup>th</sup> , 2022)	50
Grower's guide oral presentation (May 10 <sup>th</sup> , 2022)	100
<u>Attendance</u>	<u>100</u>
TOTAL Points	400

<u>Points</u>	<u>Percentage</u>	<u>Grade</u>
390-400	98-100%	A+
370-389	93-97%	A
358-369	90-92%	A-
346-357	87-89%	B+
330-345	83-86%	B
318-329	80-82%	B-
306-317	77-79%	C+
278-305	70-76%	C
238-277	60-69%	D
0-237	0-59%	F

### **Lecture Schedule**

<u>Date</u>	<u>Lecture</u>	<u>Topic</u>
January 19, Wednesday	Lecture 1	Introduction Taxonomy/Scientific Nomenclature, Monocots vs. Dicots
January 24, Monday	Lecture 2	Taxonomy/Scientific Nomenclature, Monocots vs. Dicots
January 26, Wednesday	Lecture 3	Plant Structure: Leaves/Stems/Roots/Photosynthesis
January 31, Monday	Lecture 4	Plant Structure: Leaves/Stems/Roots/Photosynthesis
February 02, Wednesday	Lecture 5	Water/Irrigation Plant Nutrition

February 07, Monday	Lecture 6	Flower Anatomy: Stimulation of Flowering Fruit Development
February 09, Wednesday	Lecture 7	Plant Propagation: Sexual vs Vegetative
February 14, Monday	Lecture 8	Planting Fruit tree mulching/spacing
February 16, Wednesday	Lecture 9	Fruit tree health/pruning
February 21, Monday	Lecture 10	Insect Pest/Disease/Weeds Post-Harvest
February 23, Wednesday	Lecture 11	Insect Pest/Disease/Weeds Post-Harvest
February 28, Monday	Lecture 12	Coconut
March 02, Wednesday	Lecture 13	Mango
March 07, Monday	No class	Guam history day
March 09, Wednesday	Lecture 14	Mango/Avocado
March 14, Monday	Lecture 15	Avocado
March 16, Wednesday	Lecture 16	Avocado/Banana
March 21, Monday	Spring Break	No Class
March 28, Monday	Lecture 17	Banana/Pineapple
March 30, Wednesday	Lecture 18	Pineapple
April 04, Monday	Lecture 19	Grower guide draft due Sweetsop/Soursop
April 06, Wednesday	Lecture 20	Papaya
April 11, Monday	Lecture 21	Dragon Fruit

April 13, Wednesday	Lecture 22	Betel nut
April 18, Monday	Lecture 23	Calamansi/Lime/Citrus
April 20, Wednesday	Lecture 24	Calamansi/Lime/Citrus
April 25, Monday	Lecture 25	Breadfruit
April 27, Wednesday	Lecture 26	Jackfruit/Damit Marang
May 02, Monday	Lecture 27	Panama Cherry
May 04, Wednesday	Lecture 28	Star fruit /Guava
May 09, Monday	Lecture 29	Watermelon
May 11, Wednesday	Lecture 30	Grower Guide written paper due
May 16, Monday	Final Exam	10:05 am – 11:55 am

**Student Learning Objectives (AL 485):**

- a. Learn the basic principles of Tropical fruit science.
- b. Understand relationships of fruits trees and environments.
- c. Understand basic physiological and chemical processes of fruit growth.
- d. Learn basic botanical and horticultural terminology.
- e. Learn basic horticultural skills of plant propagation and plant culture.

**Program Learning Objectives (Tropical Agricultural Science Program):**

- f. **Disciplinary Knowledge:** Graduates apply their agricultural knowledge and skills in the production of agricultural products using best management practices and addressing locally important issues such as island pocket economies, conservation and invasive species problems. They use their knowledge and understanding of scientific concepts to diagnose and solve problems in agricultural fields.
- g. **Quantitative Skills:** Graduates apply numerical methods in research design, financial analysis, pesticide and fertilizer application, irrigation and field setup and use computers for analysis of data and preparation of reports of results.
- h. **Research/laboratory skills:** Graduates are competent in basic laboratory procedures and safety in the laboratory and the field. Students will develop applied thinking skills to help them formulate testable hypotheses and create effective experimental designs.
- i. **Communication Skills:** Graduates can gather and assess evidence and use it to create effective lab and scientific reports, and oral presentations. They will develop the ability to identify, summarize and effectively communicate current issues to given audiences.
- j. **Technological Literacy:** Graduates are competent at applying technological skills to their chosen work. They are also a competent in the use of analog and digital equipment used in modern agricultural systems. Graduates effectively judge the usefulness and appropriateness of existing and new technologies in their professional endeavors.
- k. **Professionalism:** Graduates work effectively together in teams in laboratory, community and field settings while following ethical principles in analysis and communication. Graduates apply their gained knowledge in addressing natural resource and social issues.

**Institutional Student Learning Outcomes (ILO's)**

- l. Effective Oral and Written Communication
- m. Responsible use of Knowledge, Natural Resources, and Technology
- n. An Appreciation of Arts and Sciences
- o. An Interest in Personal Development and Lifelong Learning

**Special Accommodations (ADA):**

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request.

***Academic dishonesty:***

All assignments and tests must be your own work. The term “**plagiarism**” includes, but is not limited, to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Plagiarizing in your essay or cheating on tests will be punished with a mark of 0. If a plagiarized essay is not replaced with original work, I will assign you a grade of F for the course. There will be no make up for tests. If you are not sure what plagiarism is and how to avoid it in using sources for your work, see [www.indiana.edu/~wts/pamphlets/plagiarism.shtml](http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml)—but be careful when paraphrasing not to change the meaning of scientific information. Answers you write on the tests must come only from in your head or the information supplied in the test papers; anything else is cheating. The term “**cheating**” includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students’ answers, using crib notes (including electronic), getting information from another person via any kind of communication; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance.

***Tobacco-free/Smoke-free campus:***

UOG is a tobacco-free campus. Thank you for not using tobacco products on campus, and for helping make UOG a healthy learning and living environment.

***Family Educational Rights and Privacy Act (FERPA): link***

<http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

***COVID Statement:***

The University of Guam is experiencing continued disruption to delivery of instruction during the global coronavirus pandemic. The University will follow executive orders and may be forced to close again, causing more modifications as the semester progresses. All changes will be posted on the UOG website, [www.uog.edu](http://www.uog.edu).

- a. Contact OIT for technical support at 735-2630 or [oit@triton.uog.edu](mailto:oit@triton.uog.edu)
- b. Contact the Triton Advising Center at 735 – 2271 or [tac@triton.uog.edu](mailto:tac@triton.uog.edu)
- c. Contact Isa Psychological Services center at 735-2883 or [isa@triton.uog.edu](mailto:isa@triton.uog.edu)

In face-to-face courses, wearing masks and social distancing is required. Anyone who has a fever, or any other symptom, should stay home. If you do not comply with these directions, you will be asked to leave, and if you do not, class will be cancelled.

Patience, respect, and cooperation are needed from all of us to persist through these uncomfortable times.