TROPICAL BOTANY 2023
BOT 5685C

Instructor

Lucas Majure (Assist. Professor and Herbarium Curator, University of Florida)

Objectives

- To understand the evolutionary relationships among tropical plant families.
- To learn the morphological characters, both fertile and sterile, to identify common tropical plant families and genera.
- To learn laboratory techniques to explore plant morphological characters.
- To develop a collaborative international network of peers in tropical plant science

Format

Classes will meet Monday-Friday, with some Saturday lectures and field trips. Sundays are free, and additional field trips can be arranged. Classes start at 8:30 AM and usually finish at 5:30 PM; field trips will finish somewhat later, with one overnight.

Lectures and laboratories will be held in the International Center for Tropical Botany at The Kampong, and students will have access to classrooms, labs, as well as the library and herbarium after hours. We will make extensive use of the plant material at both The Kampong and Fairchild Tropical Botanic Gardens, and we will also use the palm, cycad and conifer collections at the Montgomery Botanical Center.

Preparation on your own will include:

- Reading background material from texts including:
    - Judd et al. *Plant Systematics: A Phylogenetic Approach 4th edition*, Sinauer. 2016.
    - Baraloto et al. *A Field Guide to Neotropical Plant Families*. 2020.
- Reviewing lecture material that is provided.
- Reviewing living collections and the collected plant material from the labs.

Assignments and Grading

Your grade will consist of participation in all lectures, labs, and field exercises (50%) in addition to performance on the two exams (25% each). If you miss any lecture, lab, or fieldtrip, you will be expected to make up the material missed.

SCHEDULE

Sun	May 12	ARRIVAL of traveling students (and check into lodging at The Kampong).
Mon	13	Orientation (at The Kampong); introduction to the course; the phylogenetic approach; *[Walking tour of The Kampong, and tram ride through Fairchild Tropical Botanic Garden (FTBG)]*
Tue	14	Overview of vegetative morphology: architectural models, stems, leaves, roots; lab on anatomy of roots, stems and leaves
Wed	15	Tropical Communities – "Top Ten" Families. *Fieldtrip: Deering Estate (in afternoon)*
Thur	16	Introduction to Tracheophyta and Spermatophyta: Cycads and Conifers. *[Visit Montgomery Botanical Center]*
Fri	17	Introduction to Angiospermae, with a focus on floral and fruit morphology, pollination biology and fruit dispersal; lab on fruit dispersal and pollination syndromes. *Field Trip*: *Gifford Arboretum* (University of Miami)
Sat	18	How to collect and process plants in the field and herbarium
Sun	19	FREE

SCHEDULE, continued

Mon	20	Primitive angiosperms and Magnoliidae: Nymphaeales, Austrobaileyales, Magnoliales, Laurales, and Piperales
Tue	21	Monocotyledoneae: Alismatales, Liliales (emphasis on Smilacaceae), Asparagales (emphasis on woody taxa, orchids), Dioscoreales
Wed	22	Monocotyledoneae: Commelinidae: Poales and Zingiberales
Thur	23	Monocotyledons: Arecales/Palmae and Pandanales [Larry Noblick, MBC]:
Fri	24	Eudicotyledoneae: basal-groups & Rosidae: Ranunculales, Proteales, Dilleniales, Zygophyllales, Oxalidales, and Fabales
Sat	25	*Field Trip: Everglades National Park*
Sun	26	FREE
Mon	27	Rosidae, cont.: Malpighiales and Cucurbitales; Fagales
Tue	28	Exam 1; Rosales, Brassicales, and Malvales
Wed	29	Myrtales and Sapindales
Thur	30	Introduction to Superasteridae: Santalales and Caryophyllales
Fri	31	*Field Trip: Florida Keys (Windley Key, Long Key, Bahia Honda, Key Deer Preserve on Big Pine Key)*
Sat	1	FREE (*possible trip to Bill Baggs Park*)
Sun	2	FREE
Mon	3	Asteridae: Ericales, Aquifoliales, and Gentianales
Tue	4	Lamiales
Wed	5	Solanales, Apiales, and Asterales
Thur	6	Exam 2 and Course Review/Cleanup