

Syllabus

PBIO 4650/6650 Plant Taxonomy

Spring 2022

- Location: 1501 Miller Plant Sciences; M, W, F, 10:20-11:10
- Lab: 2604 Miller Plant Sciences, T 9:00-11:00 or 12:00-2:00
- Instructors: Derek Denney Justine Valadez Office: Davison C322
Office: Forestry 4-213
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Office Hours: By appointment Office Hours: By appointment

Course Pre-requisites: BIOL 1104 or BIOL 1108 or PBIO 1220 or departmental permission

Learning Outcomes:

This course is designed to help students learn the principles of plant taxonomy. Students will be taught the basic morphology of plants. They will also learn the identifying characteristics of major plant families. By the end of the course, students will be able to identify plants to the species level and know how to collect and prepare quality specimens to be preserved in an herbarium.

Recommended Textbooks:

- **Highly recommended!** *Plant Systematics: A Phylogenetic Approach*, 2016, Judd et al.
- *Guide to Flowering Plant Families*, 1994, Zomlefer
- *Manual of the Vascular Flora of the Carolinas*, 1969, Radford et al.
- *Plant Identification Terminology: An Illustrated Glossary* 2001 Harris and Harris

Course Outline:

DATE TOPIC

10-Jan Introduction to course

12-Jan Introduction to taxonomy

14-Jan Taxonomic principles; cladistics

17-Jan No Class - Martin Luther King Day

19-Jan Molecular systematics

21-Jan Dichotomous keys

24-Jan Species and speciation

26-Jan Nomenclature

28-Jan Introduction to Green Plants and Land Plants

31-Jan Land Plants continued

2-Feb Land Plants continued

4-Feb Introduction to Vascular Plants; Lycophytes, Monilophytes

7-Feb Introduction to Seed Plants

9-Feb Gymnosperms

11-Feb Gymnosperms continued

14-Feb Angiosperms – Introduction to Angiosperms

16-Feb Introduction to Angiosperms continued

18-Feb Introduction to Angiosperms continued

21-Feb Review for exam 1

23-Feb Exam 1

25-Feb Angiosperms – ANA grade

28-Feb Angiosperms – Magnoliids: Magnoliaceae, Annonaceae, Myristicaceae

2-Mar Angiosperms – Magnoliids: Lauraceae, Aristolochiaceae, Piperaceae

4-Mar Introduction to Monocots: Araceae, Liliaceae**Mar 7-11 No Class Spring Break**

14-Mar Angiosperms – Monocots: Agavaceae, Amaryllidaceae

16-Mar Angiosperms – Monocots: Arecaceae

18-Mar Coevolution; **Digital specimen assignment due**

21-Mar Angiosperms – Orchidaceae

23-Mar Angiosperms – Monocots: Poales (Juncaceae, Cyperaceae, Poaceae)

25-Mar Angiosperms – Intro to Eudicots; **Digital dichotomous key assignment due**

28-Mar Angiosperms – Ranunculales (Ranunculaceae, Papaveraceae)

30-Mar Angiosperms – Saxifragales (Hamamelidaceae, Crassulaceae) Malpighiales (Euphorbiaceae, Violaceae)

1-Apr Angiosperms – Fabales (Fabaceae); **Physical specimen assignment due**

4-Apr Angiosperms – Rosales (Rosaceae, Rhamnaceae, Ulmaceae)

6-Apr Angiosperms – Cucurbitales (Cucurbitaceae)

8-Apr Angiosperms – Fagales (Fagaceae), Brassicales (Brassicaceae), Malvales (Malvaceae)

11-Apr Angiosperms – Sapindales (Anacardiaceae, Sapindaceae)

13-Apr Angiosperms – Caryophyllales (Cactaceae)

15-Apr Angiosperms – Asterids: Ericales (Ericaceae), Solanales (Solanaceae, Boraginaceae, Convolvulaceae)**First half of plant collection due**

18-Apr Angiosperms – Lamiales (Plantaginaceae, Lamiaceae)

20-Apr Angiosperms – Gentianales: Apocyanaceae, Rubiaceae

22-Apr Angiosperms – Apiales (Apiaceae)

25-Apr Angiosperms – Asterales (Asteraceae)

27-Apr Discussion and Wrap Up

29-Apr Exam 2**2-May No class; Plant collection workday****4-May Reading day; no class****11-May Full Plant collection due by 5 pm****Red dates indicate Derek's absence from class****Grading Policy:**

Grades will be based on participation in the form of quizzes, discussions, and other activities. Grades also will be based on exams, labs, and a plant collection. The Honors and Graduate level course will have additional requirements for the plant collection. All assignments are due on the assigned due date. Any exception must be approved in writing in advance.

Points will be assigned as follows:

- Class participation 100
- 2 Exams (100 points each) 200
- Plant collection 200
- Lab grade 250
- Honors/grad 350

Grades will be assigned on the following scale:

- A 94-100%
- A- 90-93%
- B+ 87-89% ○ Honors/grad collection 300
- B 84-86%
- B- 80-83%
- C+ 77-79%

- Total points 750 • C 74-76% ○ Total honors/grad 950 • C- 70-73%
- D 60-69%
- F 0-59%

Graded Assignments:

- Class participation will be graded in the form of Top Hat exercises, teaching demonstrations, and discussions. Engaging in the activities and being prepared for discussions will earn you full points for the participation portion. You can learn more about Top Hat here: <https://ctl.uga.edu/learningtechnologies/student-response-systems/top-hat-for-students/>
- The lecture will contain two exams. The exams will largely be based on content from lecture, including the Top Hat exercises and in-class activities.
- A plant collection will be required from each student. More information will be forthcoming on this assignment by February. Undergraduates will collect 25 plants while graduate students are expected to collect 50 specimens. This will be a combination of digital and physical plant collections.
- The lab will consist of assignments and lab practical exams. More information about lab grading is available in the lab syllabus.

Attendance Policy:

Although attendance will not be taken in lecture, it is strongly encouraged to attend all lectures. To ensure everyone is learning and understanding the material, in-class participation will be graded in the form of Top Hat exercises, teaching demonstrations, and discussions.

Zoom will be used for students joining remotely and can be accessed [here](#).

Field trips:

Two field trips are planned to Iron Horse Farms and a local landowner's private property. These trips are completely optional, but they will allow you to collect plants for your plant collection and experience botany in action! The trips are tentatively planned for:

- Iron Horse Farms – April 9
- A local landowner's private property – April 23

UGA Student Honor Code and Academic Dishonesty:

"I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi. Each student is expected to turn in their own work. Exams are expected to be taken alone and without notes.

Disability Access and Accommodations:

If you plan to request accommodations for a disability, please register with the Disability Resource Center. They can be reached by visiting Clark Howell Hall, calling 706-542-8719 (voice) or 706-5428778 (TTY), or by visiting <http://drc.uga.edu>

UGA COVID Policies:

Face coverings:

- Following guidance from the University System of Georgia, face coverings are recommended for all individuals while inside campus facilities.

How can I obtain the COVID-19 vaccine?

- University Health Center is scheduling appointments for students through the UHC Patient Portal (https://patientportal.uhs.uga.edu/login_dualauthentication.aspx). Learn more here – <https://www.uhs.uga.edu/healthtopics/covid-vaccine>.

- The Georgia Department of Health, pharmacy chains and local providers also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, please go to: <https://georgia.gov/covid-vaccine>.
- In addition, the University System of Georgia has made COVID-19 vaccines available at 15 campuses statewide and you can locate one here: <https://www.usg.edu/vaccination> **What do I do if I have COVID-19 symptoms?**
- Students showing COVID-19 symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see, <https://www.uhs.uga.edu/info/emergencies>.

What do I do if I test positive for COVID-19?

- If you test positive for COVID-19 at any time, you are **required to report it** through the [DawgCheck Test Reporting Survey](#). We encourage you to stay at home if you become ill or until you have excluded COVID-19 as the cause of your symptoms. UGA adheres to current Georgia Department of Public Health (DPH) quarantine and isolation [guidance](#) and requires that it be followed. Follow the instructions provided to you when you report your positive test result in DawgCheck.

Guidelines for COVID-19 Quarantine Period (As of 8/1/21; follow DawgCheck or see DPH website for most up-to-date recommendations)

- Students who are fully vaccinated **do not** need to quarantine upon exposure unless they have symptoms of COVID-19 themselves. All others should follow the Georgia Department of Public Health (DPH) recommendations:
- Students who are not fully vaccinated and have been directly exposed to COVID-19 but are not showing symptoms **should self-quarantine for 10 days**. Those quarantining for 10 days must have been symptom-free throughout the monitoring period and continue self-monitoring for COVID-19 symptoms for a total of 14 days. You should report the need to quarantine on [DawgCheck](#) (<https://dawgcheck.uga.edu/>), and communicate directly with your faculty to coordinate your coursework while in quarantine. If you need additional help, reach out to Student Care and Outreach (sco@uga.edu) for assistance.
- Students, faculty and staff who have been in close contact with someone who has COVID-19 are no longer required to quarantine if they have been fully vaccinated against the disease and show no symptoms.

Well-being, Mental Health, and Student Support

- If you or someone you know needs assistance, you are encouraged to contact Student Care & Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu/>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources to support your well-being and mental health: <https://wellbeing.uga.edu/>
- Counseling and Psychiatric Services (CAPS) is your go-to, on-campus resource for emotional, social and behavioral-health support: <https://caps.uga.edu/>, TAO Online Support (<https://caps.uga.edu/tao/>), 24/7 support at 706-542-2273. For crisis support: <https://healthcenter.uga.edu/emergencies/>.
- The University Health Center offers FREE workshops, classes, mentoring and health coaching led by licensed clinicians or health educators: <https://healthcenter.uga.edu/bewelluga/> **Monitoring conditions:**
- Note that the guidance referenced in this syllabus is subject to change based on recommendations from the Georgia Department of Public Health, the University System of Georgia, or the Governor's Office. For the latest on UGA policy, you can visit coronavirus.uga.edu.

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.