PBIO 109, Plant Systematics
Fall 2020
4 credits

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Lecture: Tuesday and Thursday, 11:40 a.m. - 12:55 p.m., 122 Hills Building (Mixed Mode; for more information, see top of page 4, below)

Lab: Monday, 1:15 - 5:15 p.m., Room 100 Jeffords Hall
Tuesday, 1:15 - 5:15 p.m., Room 100 Jeffords Hall
Weds. 1:15 - 5:15 p.m., Room 100 Jeffords Hall

Course Overview

Plant Systematics serves students who come to the course from a diversity of academic backgrounds and who bring to it a variety of needs and expectations; we hope you will all find some of what you are looking for here in the next fourteen weeks. We develop five principal *themes* in Plant Systematics:

- Plant Structure and the Terms Botanists Use to Describe It
- Introduction to Vermont Plant Families
- Plant Taxonomy (the field of biology dealing with the identification, nomenclature, and classification of organisms)

- Flowering Plant Phylogeny
- Plant Reproductive Biology

In addition, we aim to provide each student with the following *skills*:

- Plant identification using the technical literature and appropriate field guides
- Recognition of about 25 plant families common in the flora of the Northeast
- Understanding of plant form and associated terminology
- Preparation of museum-quality herbarium specimens
- Recognition of a set of herbaceous species that characterize Vermont's flora

More will be said about each of these at the first class meeting.

Texts

Castner, J. L. 2004. *Photographic Atlas of Botany and Guide to Plant Identification*. Feline Press. **(Recommended;** out of print, but available online, e.g. Amazon

Newcomb, L. 1977. Newcomb's Wildflower Guide. Little, Brown. **(Required)**

Magee, D. and H. Ahles. 2007. Flora of the Northeast, 2nd edition. University of Massachusetts Press. **(Required)**

Additional Resources

"Go Botany: Discover Thousands of New England Plants." *Go Botany: Native Plant Trust*, 2.4.1. Native Plant Trust, n.d. Web.

Struwe, L. 2009. Field identification of the 50 most common plant families in temperate regions (including agricultural, horticultural, and wild species). Rutgers University, New Brunswick, NJ, USA. Published by the author; used with permission.

Labs

Labs meet in Room 100 Jeffords Hall, beginning on **Monday, August 31 *(first day of class!)***. Labs during the first two-thirds of the semester will be field labs; please dress appropriately. You will need your flora (Magee and Ahles), your field guide (Newcomb's), and your hand lens for the first lab.

Blackboard

We will use Blackboard in PBIO 109 as a tool to post power point slides, assignment reminders, course grades, and quizzes. Please check it regularly.

Equipment for plant collection and identification

Press (you may put this together or borrow one from the department; a $35 deposit is required upon issue), field notebook, hand lens (consider ordering the Bausch and Lomb Coddington 10X lens, available from Amazon for $19.99 (the UVM Bookstore offers a cheaper one), small metric ruler, pocketknife, digging tool

Weekly Quizzes

A quiz will be given each Thursday - not including exam weeks - in PBIO 109, beginning the second week of the semester. Quizzes will cover the material discussed in lecture that week.

Exams

There will be two hourly exams and a final in PBIO 109. Hourly exams are scheduled for **Thursday, October 15** and **Thursday, November 19,** Room 110 Jeffords. (These dates are subject to change.) The final exam format and schedule will be announced as soon as the Registrar's Office sets the date.

Plant Collection

In addition to your work in lecture and the laboratory, you will be preparing a collection of 20 dried specimens of non-woody spore-dispersed and flowering plants, representing 20 different plant families. Specimens must be correctly identified, completely labeled, and attractively mounted. In order to provide you with helpful feedback on your specimen preparation, I will collect the first five specimens on **Tuesday, September 29.** The entire collection (20 specimens) is due on **Tuesday, November 24**. Read the handout on collecting and begin to collect AT ONCE: good specimens get harder to find as we move into the fall, and once we get a hard frost, usually about October 15 in this part of Vermont, it's all over.

Plant Family Presentation

One goal of PBIO 109 is an orientation to plant families. We will pursue this goal in a variety of ways through the semester, both in the field and in the lab. Each student will choose a different family and will design a presentation (Power Point or Prezi) about it. Presentations should be information dense and image rich. They will be evaluated on three criteria: 1) accuracy of information; 2) effort and creativity evidenced in the product; and 3) technical competence. More will be said about the family assignment in the weeks ahead. The presentation must be completed by **Friday, December 4**.

Grading

Laboratory	25%
Hourly exams, 10% each	20%
Final exam	15%
Plant collection	25%

Family presentation	05%
Attendance, participation, and quizzes	10%

For Fall 2020: Lecture in the Mixed Modality

As a moderately large course, PBIO 109 is being offered this fall in the Mixed Modality. Students in the class will be divided into two groups, according to their position in the alphabet (**A-K** and **L-Z**). Those in Group One will be in class, in person, with me on Tuesday; those in Group Two will be in class, in person, on Thursday. Lecture will be accessed remotely for those not in the room. (Details on exactly how the remote part will be done have yet to be worked out.) Each day's lecture will be unique: Thursday's class will not be a repeat of Tuesday's, so students are required to attend all class sessions, whether in person or remotely, according to the day and their group.

Because a large part of building the knowledge base and skill set in PBIO 109 depends on having live plant material to examine, plants to be used in class on any given day will be set out on a table in Jeffords for students to pick up and study if they will be "in class" remotely that day. (Students in person will receive plants in class.)

Office hours will be conducted remotely, via Microsoft Teams, at least until further notice.

How to get an *A* in Plant Biology 109: I do not strive for a normal distribution of course grades in Plant Systematics: I would happily assign an *A* to each of you at the end of the semester; I hope that quite a few of you will have earned one. Here is what you can do to make it likely:

Come to class regularly. Nothing takes the place of actually being present in the classroom.
Begin collecting plants immediately and spend some time on it each week until it is finished.
Ask questions *whenever* something is unclear.
Work in study groups; quiz one another on botanical terms, plant family characters, etc.
Keep up with the assigned reading
Work hard … and *have fun*!

Academic Integrity

Academic integrity is expected of all students at the University of Vermont. UVM has a strict policy concerning academic integrity; violations of this policy will not be tolerated. Consequences for violation range from a zero on the test or assignment to expulsion from the University. The UVM policy on academic integrity can be found at https://www.uvm.edu/policies/student/acadintegrity.pdf

Students Working with SAS

In keeping with UVM policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Student Accessability Services, on campus.

SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations via an accommodation letter to faculty with recommended accommodations as early as possible each semester. Contact SAS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu; or https://www.uvm.edu/academicsuccess/student_accessibility_services

Religious Holidays

Students are welcome to practice the religion of their choice and have the right to observe the holidays of their religious tradition. If you plan to miss class for a religious holiday – especially if an exam is scheduled for that day - please let me know which days you plan to miss, in writing, by the end of the second week of class.

Cell Phones

As a courtesy to your instructor and fellow students, cell phones must be put away and silenced during class. *Texting during class is not permitted.*