EVPP 490/505: Plants of Virginia

Fall 2025
Thursdays 1:30-4:10 pm
Peterson Hall Room 2411 (In-person)
3 Credits

Instructor: Dr. Emily E. Conway
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Office Hours: in-person or virtual by appointment

Course Description:

Plants of Virginia will explore Virginia's major ecosystems and the plant species living within them. The focus of this course is to help students develop basic skills with plant identification and this takes place through the lens of Virginia's ecosystems. With this, students will also learn about the ecology of Virginia ecosystems, including natural history, threats, and approaches to management, and how plant characteristics relate to the environments they live in.

Learning Outcomes:

These learning outcomes are designed to help students master the fundamental concepts of plant identification and the ecology of Virginia's ecosystems. By the end of this course students will be able to:

- Explain the distributions of Virginia's major ecosystem types
- Describe and discuss key attributes of Virginia's major ecosystem types including geographic distribution, physiographic context, natural processes, and characteristic plant species
- Identify primary plant species from Virginia's major ecosystems using tools such as dichotomous keys
- Make a collection of pressed plant specimens which have been identified to species
- Relate plant species to their environment based on plant characteristics

Assigned and Optional Readings:

Course materials include articles from the primary literature and occasionally from other media sources. All readings will be posted on Canvas.

Textbook (optional):

There are no required texts for this course, however you find resources listed below useful for this class and beyond if you are planning to continue in the plant sciences.

- Digital Atlas of the Virginia Flora: https://www.vaplantatlas.org/
- The Natural Communities of Virginia Classification of Ecological Groups and Community Types: https://www.dcr.virginia.gov/natural-heritage/natural-communities/
- The Flora of Virginia:
    - Book: Limited availability as of October 2024 but you may be able to find used copies as well as new (see link below).
        - https://floraofvirginia.org/support/flora-store/
    - App: The Flora of Virginia Mobile App puts the full contents of the print Flora into your pocket—and much more.
        - $19.99
        - Android
        - iOS

Course Structure:

This is a hands-on course, with a focus on developing practical plant skills, and takes place through a combination of classroom instruction, field-based learning, and online materials. Class meetings will take place in the classroom (Peterson Hall), unless otherwise indicated in the course schedule and via announcements on Canvas. Most of these meetings will be led by Dr. Conway, but we will also have some guests visit the class, drawing on expertise from within GMU and outside GMU.

> *Lectures:* Each week lectures will center on the topics outlined in the course schedule. I will always try to post the lecture slides prior to the start of each class on Canvas. However, please note that this may not always happen, and the portions of the lecture slides may be missing information that can be filled in during lecture. **Attendance is required** and will count towards your final grade. However, if you are unable to attend a lecture, or if you need accommodations, please contact me as soon as possible.

Plant Collection: Each student will collect, press, label, mount, and identify 15 unique plants per species to form their own plant collection. More detailed instructions will be provided.

Plant Identification Exam: A critical component of identifying and understanding plant communities is being able to correctly identify the key vegetation found within them. Therefore, students will be tested on their ability to identify key plant species found within the plant communities we cover in this course. We will use a combination of live plants, herbarium specimens, pictures, etc. as reference material.

Natural Area Description (EVPP 505 students only): Graduate students enrolled in EVPP 505 will be required to apply what we have learned in this course related what natural communities are found within Virginia and how they are classified. To do this, they will select and describe a natural area, classify its plant community, and develop a brief management plan for this area. More detailed instructions will be provided.

Late Work Policy

There will be a 24-hour grace period on all assignment due dates. If assignments are submitted 2-7 days late, there will be a 25% reduction in points earned. If assignments are submitted more than 7 days late, there will be a 50% reduction in points earned. Please try your best to submit all assignments on or before the due date to avoid penalty but turning in your work late is better than not turning it in at all.

If you need an extension for any assignment, you must contact me at least 24 hours in advance of the due date to request one.

Grading:

Points:

Attendance	70 points (5 points/class, 14 class meetings)
Plant Collection*	100 points
Homework	60 points (20 points each, 3 assignments)
Plant Identification Exam*	100 points
Plant ID Quizzes	30 points (10 points each, 3 quizzes)
Natural Area Description*	115 points (EVPP 505 students only)
Homework	30 points (10 points each, 3 assignments)
Rough Draft	20 points

Total **360 points (EVPP 490 students)**
525 points (EVPP 505 students)

*As these form the basis for your final grade, there will be intermediate steps/assignments so that I can provide feedback on your progress. Details and deadlines for these intermediate steps will be provided on Canvas.

Grading Policies: Grades will be awarded using the following grade cut-offs: 100-98 = A+; 98-93 = A; 92-90 = A-; 89-87 = B+; 86-83 = B; 82-79 = B-; 78-77 = C+; 76-70 = C; 69-60 = D; ≤ 59 = F.

Course Schedule *(tentative)*:

Week	Date	Lecture Topic	Assignments (Due Date)
1	Thursday 8/28	Introduction to Course Introduction to Virginia plant communities and classification	
2	Thursday 9/04	**Field Trip** – Tour of restoration planting at Laurel Hill Park (8780 Lorton Rd, Lorton, VA 22079) and talk with John Burke (Natural Resources Branch Manager Fairfax County Park Authority)	
3	Thursday 9/11	Plant Identification: Introduction to basic principles Collecting and pressing plants **Field Trip** – Tour of the Foragers' Forest (on campus) and talk with Sarah Roth (ESP MS alum and designer/co-	

		creator of the Foragers' Forest)	
4	Thursday 9/18	Introduction to dichotomous keys and online tools High-Elevation Forests, Grasslands, and Rock Outcrops	Plant Collection HW1: Submit pictures of collected plant specimens
5	Thursday 9/25	Soils Low-Elevation Mesic Forests	Natural Areas Description HW1: Finalize site selection, photograph area, and create a map of area
6	Thursday 10/02	Low-Elevation Mesic Forests	Plant Collection HW2: Complete plant photo identification Plant ID Quiz
7	Thursday 10/09	Natural Areas Management Low-Elevation Dry and Dry-Mesic Forests	Natural Areas Description HW2: Submit draft determination of plant community
8	Thursday 10/16	Low-Elevation Dry and Dry-Mesic Forests	Plant ID Quiz
9	Thursday 10/23	Low-Elevation Woodlands, Barrens and Rock Outcrops	Plant Collection HW3: Draft plant collection due
10	Thursday 10/30	**Field Trip** – Tour of the GMU Herbarium (Exploratory Hall, L109 and L110) and talk with Dr. Andrea Weeks Alluvial Floodplain Communities	
11	Thursday 11/06	Alluvial Floodplain Communities	Natural Areas Description HW3: Submit draft of site management plan
12	Thursday 11/13	Maritime Zone Communities	Plant ID Quiz
13	Thursday 11/20	Tidal Wetlands	Plant Collections Due Natural Areas Description Rough Draft Due

14	Thursday 11/27	Thanksgiving Recess: No Classes (University Closed)	
15	Thursday 12/04	Plant ID Exam	Natural Areas Description Due
16	Tuesday 12/09	Reading Day – No Classes	

Additional GMU Policies:

Academic Standards

Academic Standards exist to promote authentic scholarship, support the institution's goal of maintaining high standards of academic excellence, and encourage continued ethical behavior of faculty and students to cultivate an educational community which values integrity and produces graduates who carry this commitment forward into professional practice.

As members of the George Mason University community, we are committed to fostering an environment of trust, respect, and scholarly excellence. Our academic standards are the foundation of this commitment, guiding our behavior and interactions within this academic community. The practices for implementing these standards adapt to modern practices, disciplinary contexts, and technological advancements. Our standards are embodied in our courses, policies, and scholarship, and are upheld in the following principles:

- **Honesty:** Providing accurate information in all academic endeavors, including communications, assignments, and examinations.
- **Acknowledgement:** Giving proper credit for all contributions to one's work. This involves the use of accurate citations and references for any ideas, words, or materials created by others in the style appropriate to the discipline. It also includes acknowledging shared authorship in group projects, co-authored pieces, and project reports.
- **Uniqueness of Work:** Ensuring that all submitted work is the result of one's own effort and is original, including free from self-plagiarism. This principle extends to written assignments, code, presentations, exams, and all other forms of academic work.

Violations of these standards—including but not limited to plagiarism, fabrication, and cheating—are taken seriously and will be addressed in accordance with university policies. The process for reporting, investigating, and adjudicating violations is outlined in the university's procedures. Consequences of violations may include academic sanctions, disciplinary actions, and other measures necessary to uphold the integrity of our academic community.

The principles outlined in these academic standards reflect our collective commitment to upholding the highest standards of honesty, acknowledgement, and uniqueness of work. By adhering to these principles, we ensure the continued excellence and integrity of George Mason University's academic community.

Student responsibility: Students are responsible for understanding how these general expectations regarding academic standards apply to each course, assignment, or exam they participate in; students should ask their instructor for clarification on any aspect that is not clear to them.

Use of AI Tools

The effective use of Artificial Intelligence (AI) tools is an increasingly important skill that students will likely need to be familiar with beyond the university setting. As such their use may sometimes be allowed in course assignments if:

- Instructor permission is obtained in advance and
- That use is properly documented and credited. For example, text generated using ChatGPT-3 should include a citation such as: "Chat-GPT-3. (YYYY, Month DD of query). "Text of your query." Generated using OpenAI. https://chat.openai.com/" Material generated using other tools should follow a similar citation convention.
- That use adheres to George Mason University AI Guidelines (https://www.gmu.edu/ai-guidelines/ai-guidelines)

The use of generative AI tools is not permitted in this course for the following activities:

- Impersonating you in classroom contexts, such as by using the tool to compose discussion board prompts assigned to you or content that you put into a Zoom chat.
- Completing group work that your group has assigned to you, unless it is mutually agreed upon that you may utilize the tool.
- Writing a draft of a writing assignment.
- Writing entire sentences, paragraphs or papers to complete class assignments.

AI tools can be helpful when generating ideas, identifying sources, synthesizing text, and helping you to understand what are important concepts within a topic of interest. However, it is critical that students use their own critical thinking skills to guide, verify, and craft their work products – not AI.

Accommodations for Students with Disabilities

Disability Services at George Mason University is committed to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities. Under the administration of University Life, Disability Services implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students can begin the registration process with Disability Services at any time during their enrollment at George Mason University. If you are seeking accommodations, please visit https://ds.gmu.edu/ for detailed information about the Disability Services registration process. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu. Phone: (703) 993-2474.

Student responsibility: Students are responsible for registering with Disability Services and communicating about their approved accommodations with their instructor *in advance* of any relevant class meeting, assignment, or exam.

FERPA and Use of GMU Email Addresses for Course Communication

The Family Educational Rights and Privacy Act (FERPA) governs the disclosure of education records for eligible students and is an essential aspect of any course. **Students must use their GMU email account** to receive important University information, including communications related to this class. Instructors will not respond to messages sent from or send messages regarding course content to a non-GMU email address.

Student responsibility: Students are responsible for checking their GMU email regularly for course-related information, and/or ensuring that GMU email messages are forwarded to an account they do check.

Title IX Resources and Required Reporting

As a part of George Mason University's commitment to providing a safe and non-discriminatory learning, living, and working environment for all members of the University community, the University does not discriminate on the basis of sex or gender in any of its education or employment programs and activities. Accordingly, **all non-confidential employees, including your faculty member, have a legal requirement to report to the Title IX Coordinator, all relevant details obtained directly or indirectly about any incident of Prohibited Conduct** (such as sexual harassment, sexual assault, gender-based stalking, dating/domestic violence). Upon notifying the Title IX Coordinator of possible Prohibited Conduct, the Title IX Coordinator will assess the report and determine if outreach is required. If outreach is required, the individual the report is about

(the “Complainant”) will receive a communication, likely in the form of an email, offering that person the option to meet with a representative of the Title IX office.

For more information about non-confidential employees, resources, and Prohibited Conduct, please see University Policy 1202: Sexual and Gender-Based Misconduct and Other Forms of Interpersonal Violence. Questions regarding Title IX can be directed to the Title IX Coordinator via email to TitleIX@gmu.edu, by phone at 703-993-8730, or in person on the Fairfax campus in Aquia 373.

*** Please note, as a faculty member I am a mandatory reporter and must report all disclosures ***

Student opportunity: If you prefer to speak to someone ***confidentially***, please contact one of Mason’s confidential employees in Student Support and Advocacy (SSAC), Counseling and Psychological Services (CAPS), Student Health Services (SHS), and/or the Office of the University Ombudsperson.