

BSCI 441 Exploring NH Forests: Drawing to Discover the Tree Community

Credits: 4.0

Term: Fall 2025 - Full Term (August 25 - December 8)

Course Format: In person (Combined Lecture/Lab)

Instructor: Christine Andrews, christine.andrews@unh.edu, Adjunct Professor, Office hours TBD

Preferred Contact Method: christine.andrews@unh.edu will respond within 48 hours.

Department and Program: Dept. of Life Sciences, Program in Biological Sciences

Office: Pandora Building, Room 244, 603-641-4338

Course Description

Discover the hidden stories of New Hampshire's forests as you learn to see like an artist and think like an ecologist. This course combines foundational drawing techniques (no prior drawing skills required!) with hands-on exploration of the forest community and current forest ecology research topics. Through guided outdoor sessions students will sharpen their ability to observe and document the natural world. In-class activities, discussion and readings will provide opportunities to discover the ecological principles and breaking research that describe how trees connect to each other and their community. Inspired by their forest experiences, students will engage in a research project of interest to create an illustrated report.

Discovery: Satisfies the Fine and Performing Arts (FPA) requirement in the Discovery Program.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- Understand and appreciate art and its historical role in observational science
- Demonstrate foundational drawing skills such as line, value, form, perspective and composition
- Identify common New Hampshire tree species and their roles within forest communities
- Apply and explain the ecological principles that govern forest dynamics, including species interactions, succession and forest biodiversity
- Produce a written and illustrated report that integrates ecological research, field observations and visual documentation to communicate findings on a tree species and a facet of its ecological interaction

Meeting Times/Locations

This course meets weekly in person. There will be at least 6 class meetings at local forests during normal class time. Students should be prepared for a variety of weather conditions and come appropriately dressed for walking on uneven terrain that may include moderate inclines. Students concerned about the physical requirements should contact the instructor.

Required Course Materials

- Free access to [‘Ecology for All!’ LibreTexts Commons](#)
- Drawing materials (links to purchase through Amazon will be provided, but these supplies can also be found at local craft stores, such as Hobby Lobby or Michael's)
 - 8x10" or similar sized sketch pad (at least 50 sheets)

- A selection of drawing pencils: H, HB, B and pencil sharpener
- A medium or fine tipped ink pen(s)
- We will use our Canvas course extensively. You should have a computer/laptop with good internet access. Additionally, you will be required to take pictures of and upload evidence of drawing assignments. You should have the necessary camera (on a phone or otherwise) or ability to scan and upload. The library has a book scanner that can be used for this purpose.

Grading

- Scale

Final grades in this course will be based on the following scale:

94-100=A; 90-93.9=A-; 87-89.9=B+; 83-86.9=B; 80-82.9=B-; 77-79.9=C+; 73-76.9=C; 70-72.9=C-; 67-69.9=D+; 63-66.9=D; 60-62.9=D-; Below 60=F

- Distribution

Grades will be available at any time through our Canvas course. The final grade will be calculated as follows (expanded descriptions of each category can be found further in the syllabus):

30% Weekly assignments

20% Mid-term assessment

20% Final assessment

30% Illustrated Report/Research Project

Course Activities

Weekly Assignments take two forms:

- Relevant videos and readings that require thoughtful response. These activities will provide you with relevant ecological concepts that you will use to investigate and analyze tree species' roles and interactions in our forest communities. This work will inform, and you are expected to utilize the resources for, your final illustrated research project.
- Drawing assignments that include process reflection. These activities are designed to provide practice for and demonstrate your application of foundational drawing concepts. This work will prepare you for the drawing in your illustrated research project. *Please note that everyone possesses some innate drawing ability and will start from a different skill level. You will be assessed on your application of skills presented in the course and progress you make in applying the skills consistently.*

Mid-term and Final Assessments will evaluate your knowledge of ecological principles as well as the foundational drawing skills.

The *Illustrated Research Report* asks you to reflect on our exploration of forest communities and readings and develop a question of interest. You will be required to apply the ecological principles learned through this course as well as current research in forestry and related fields. Finally, you will utilize your foundational drawing skills to illustrate your report with drawings of your tree species

and/or ecological interactions. Examples, peer and instructor feedback as well as library services will support your process.

Course Policies

Credit Hours: The University of New Hampshire is in compliance with the federal definition for credit hour. The University requires, at a *minimum*, the equivalent of three hours of student academic work and engagement each week. Academic work includes, but is not limited to, direct faculty instruction, e-learning, fieldwork, readings, reflections, essays, reports, inquiry, problem solving, rehearsal, collaborations, theses, and electronic interactions.

Attendance: Due to the nature of this course, attendance is critical. In most cases, field or class activities cannot be replicated. Missing class/excessive absences may result in a grade reduction.

Field and Classroom Conduct: Respect for your classmates, the instructor and the environment are required at all times.

Cell Phones: Cell phones are not part of this course and should always be stowed away as they interfere with the classroom and field experiences for both you and your classmates.

Assignment Deadlines: Assignment due dates are provided in Canvas. Late work will not be accepted unless you have made arrangements with me ahead of time and have a valid and reasonable reason for your request.

Use of AI: All assignments must be solely your own work. The use of AI-assisted writing (such as ChatGPT) is strictly prohibited on any assignment in this course unless otherwise instructed.

Class Recording & Photographs: Class lectures and activities may be recorded in order to make this course more accessible, and recordings may be made available to students presently enrolled in the class to assist in reviewing material and preparing for assessments. Recordings are to be used for educational use/purposes only. Students may **not** record class activities (including screenshots showing instructors and students) without express permission from their instructor. If permission is granted, student-initiated recordings may only be used for educational purposes in this class and only during the period in which the student is enrolled in the class; authorized student-initiated recordings may **not** be posted or shared in any fashion outside of the class.

Biology Program Academic Honesty: The Biology Program at UNH Manchester will strictly adhere to the University policy on academic honesty, as published in the UNH Student Rights, Rules, and Responsibilities Handbook (<http://unh.edu/vpsas/handbook/academic-honesty>). By turning in any piece of work in this course, you declare that you have read and understood the policy and that you did not engage in any form of academic dishonesty as defined in the Handbook.

Plagiarism can take many forms, such as: submitting someone else's work - in whole or in part - as your own; collaborating on answers for individual assignments or allowing your own work to be used

by another student; copying information from a website or other text without proper documentation; buying a pre-written paper or lab report.

Cheating is mainly concerned with copying on exams or in the lab, bringing crib notes into an exam, or referring to notes or the textbook or any other source such as a programmable calculator, tablet, or cell phone during an exam.

Any instances of cheating or plagiarism will result in consequences that can range from a failing grade on the assignment for all students involved to dismissal from the University, as defined in the UNH Student Rights, Rules, and Responsibilities Handbook.

Any form of academic misconduct on any graded work in this course (including assignments, quizzes, or exams) will result in an automatic zero on the assignment. Additional consequences may result at the discretion of the instructor.

Course Schedule

(may be altered by the instructor due to weather, course progress or other unforeseeable events. All changes will be announced and made through our Canvas course)

Week	Topic	Assignments/Readings Due
1	<ul style="list-style-type: none">• The First Naturalists: Drawing to Document• Foundations of Drawing: The Line	Videos/Reading & Response 1
2	<i>In the Field (location TBA)</i> <ul style="list-style-type: none">• The Forest Floor• Learning to see: observing with all the senses	Videos/Reading & Response 2
3	<ul style="list-style-type: none">• Ecological Hierarchies & Tree Diversity• Foundations of Drawing: Line Value	Videos/Reading & Response 3
4	<i>In the Field (location TBA)</i> <ul style="list-style-type: none">• Tree Structure & Leaves• Foundations of Drawing: Shape	Videos/Reading & Response 4
5	<ul style="list-style-type: none">• The Forest Environment: Biotic & Abiotic Elements• Foundations of Drawing: Perspective	Drawing Assignment 1
6	<i>In the Field (location TBA)</i> <ul style="list-style-type: none">• Forest Canopy & Understory• Foundations of Drawing: Composing an Image	Videos/Reading & Response 5
7	Mid-term Assessment	Drawing Assignment 2
8	<ul style="list-style-type: none">• Introduction: Illustrated Report/Research Project/Library Instruction• Tree Reproduction	Videos/Reading & Response 6

9	<i>In the Field (location TBA)</i> <ul style="list-style-type: none"> Form & Shading 	Videos/Reading & Response 7
10	<ul style="list-style-type: none"> Species Interactions 	Drawing Assignment 3
11	<i>In the Field (location TBA)</i> <ul style="list-style-type: none"> Texture 	Videos/Reading & Response 8
12	<ul style="list-style-type: none"> Forest Succession 	Videos/Reading & Response 9
13	<i>In the Field (location TBA)</i> <ul style="list-style-type: none"> Tree ID & Successional Stage Free Drawing Exploration & Instructor Consults 	Drawing Assignment 4
14	Peer Feedback Workshop	Hard Copy of Draft Report
15	Final Assessment / Report Share Out	Illustrated Research Report

Additional Resources and Information

Library: The UNH Manchester librarians are available to assist you with the research process. Visit the library's website at <https://cps.unh.edu/library>Links to an external site. to learn about library services and to search for reliable academic sources. You can contact the library at 603-641-4173 or at unhm.library@unh.edu. The links below guide you to useful online library resources:

- Make a **Research Appointment** with a librarian: <https://libraryguides.unh.edu/remotearchive/researchhelp>Links to an external site.
- Use the **Library Search Box** to find information: https://libraryguides.unh.edu/librarysearchbox_unhmanchesterLinks to an external site.
- Reserve a **Study Room**: <https://cps.unh.edu/library/support-services>Links to an external site.
- Discover resources for **Citing Sources**: <https://libraryguides.unh.edu/unhmcitingsources>Links to an external site.
- Learn strategies for **Evaluating Sources**: <https://libraryguides.unh.edu/ENGL401UNHManchester/evaluatingsources>Links to an external site..

Center for Academic Enrichment (CAE): The Center for Academic Enrichment (CAE) is a free resource for all students enrolled in UNH Manchester courses, as well as alumni with writing for graduate school applications and career seeking. *ALL UNH Manchester students may receive 1 hour of individual tutoring per week for each course in which they are enrolled* (dependent on tutor availability). CAE tutors support most courses and writing across the curriculum. In addition, tutors can work with you around time management, study skills, note-taking and academic organization strategies. Tutors work by appointment only, so please plan ahead for the next day or beyond. Appointments are available Monday through Friday, with occasional night and weekends. Visit the [CAE myCourses site](#) for more information about our services, and to make an appointment. *To make an appointment call the CAE at (603) 641-4113 or directly access our [TracCloud](#) scheduling software.*

Temporary Academic Supports for Extended Absences: If you are dealing with an unexpected, extenuating circumstance that will keep you out of class or affect your performance for more than a day or two, reach out to Lisa Enright, Assistant Dean of Student Success, at lisa.enright@unh.edu to request a letter be sent to all your faculty.

Mental Health and Wellness: Your academic success and overall mental health are very important. If, during the course, you find you are experiencing emotional or mental health issues, please reach out. In partnership with The Mental Health Center of Greater Manchester, UNH Manchester offers free mental health sessions for students. You may email unhm.wellness@unh.edu to make an appointment to meet with a counselor. The National Suicide Prevention Lifeline provides 24/7, free and confidential support via phone or chat for people in distress, resources for you or your loved ones, and best practices for professionals. Call (800) 273-TALK (8255).

Basic Needs: It can be challenging to do your best in class if you have trouble meeting basic needs like safe shelter, sleep, and nutrition. If you have difficulty affording groceries or accessing sufficient food to eat every day or lack a safe and stable place to live, I urge you to contact The Dean of Students and/or me if you are comfortable. You can also find a [list of resources](#). We are here to help.

Academic Alerts: The University is invested in your academic success. If I am concerned about your academic behavior or performance, I may submit an academic alert. Academic alerts are not punitive. The goal is to provide you with support and resources to support your success. They act as an important check-in point and, if you receive an academic alert, you will receive an email to your UNH email address. It is strongly recommended that you meet with a professional advisor and connect with me to discuss the reason for the alert.

UNH Land, Water, and Life Acknowledgement: As we all journey on the trail of life, we wish to acknowledge the spiritual and physical connection the Pennacook, Abenaki, and Wabanaki Peoples have maintained to N'dakinna (homeland) and the aki (land), nebi (water), olakwika (flora), and awaasak (fauna) which the University of New Hampshire community is honored to steward today. We also acknowledge the hardships they continue to endure after the loss of unceded homelands and champion the university's responsibility to foster relationships and opportunities that strengthen the well-being of the Indigenous People who carry forward the traditions of their ancestors.

Accessibility Services: According to the Americans with Disabilities Act (as amended, 2008), each student with a disability has the right to request services from UNH to accommodate his/her/their disability. If you are a student with a documented disability or believe you may have a disability that requires accommodations, please contact Student Accessibility Services (SAS) located on the Manchester campus in the Student Services Suite (Office 405A). Accommodation letters are created by SAS with the student. Please follow-up with me as soon as possible to ensure timely implementation of the identified accommodations in the letter. Faculty have an obligation to respond once they receive official notice of accommodations from SAS but are under no obligation to provide retroactive accommodations. For more information refer to www.unh.edu/sas or contact SAS at 603.862.2607, 711 (Relay NH) or sas.office@unh.edu.

Food Pantry: The campus food pantry has pre-packed bags of non-perishable food items for students in room 437. If you have any questions, contact lisa.enright@unh.edu