

FES 241_001 Dendrology (F2021)

Credits: 3

Instructor: Dawn Anzinger

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TA: Melanie Douville

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Course Description and Format

Dendrology teaches students to identify the principal forest trees of North America and the principal trees and shrubs of the Pacific Northwest. Dendrology also teaches students botanical terminology, systematics, and basic forest ecology.

FES 241_001 is a **blended learning** course, which means it has both online and in-person learning elements.

Lab – Meets in-person

Lab meets in PFSC 177 every Tuesday (1:00-3:20pm) of the term. In lab, you will learn how to identify trees and accurately describe their characteristics. Labs are scheduled to meet in Peavy Forest Science Center (PFSC) 177, but we will often meet **outside** in the arboretum (south side of the building) instead. Please bring the Manual of Oregon Trees & Shrubs, a notebook with blank (unlined pages), a pencil, and an eraser with you to lab.

If you are unable to attend lab, you may request to complete a remote lab instead. This option is intended for students who are sick or have Covid symptoms or who are experiencing a health or family emergency. Please contact me (Dawn) as soon as possible to make arrangements.

Lecture – Meets both online and in-person.

Online. Each week you will be watching a small batch of recorded lectures on Canvas. These are found in the weekly modules on Canvas. You are expected to watch the recorded lectures by Wednesday of the week they are assigned. You will be writing 5 quiz questions per week on their content.

In-person. We will meet together each Tuesday and Thursday morning (9:00-9:50am) in PFSC 177. The in-person lectures will be used for active learning: raising questions on the recorded lecture material; examining plant materials such as leaves, cones, and fruit; taking quizzes and practice quizzes on the lecture material; and working on group research projects. Please bring Sibley's Guide to Trees, paper, and pen/pencil with you to lecture. Laptops would be welcome too.

Exams – Most are in person, but not all.

Online.

- The terminology exam will be administered by Canvas and available from weeks 1 through 4. You may take the terminology exam multiple times. Your highest score will be recorded.

- An unproctored quiz on the Forest Biomes lecture unit (Quiz 3) will be administered through Canvas during finals week.

In person.

- Identification exams will be held during the **recitation period**. Identification exams test your ability to identify trees from leaf, cone, flower, and fruit samples. Everyone signed up for one of two possible recitation periods, Tuesday at 4:00-5:50pm and Thursday at 4:00-5:50pm. You will take your identification exams during particular weeks of the term (5, 6, 9, 10). During the remaining weeks, recitation will be canceled.
- The first two lecture quizzes (Quizzes 1 & 2) will be held during the **Thursday lecture period**.

Prerequisites

There are no prerequisites in this course. However, to succeed in this course, student should have either a basic background in biology (high school-level) or prior experience in plant identification.

Technical skills and tools required for success in this course are a computer with a relatively fast internet connection and a digital camera (phones are fine), along with an ability to upload digital photographs and attach files.

Communication

There are several ways to communicate with me, Dawn (or Ms. Anzinger, if you prefer), your instructor. If you have a quick question about the course material, assignments, or class format, I recommend posting your question on the course Q & A discussion forum on Canvas. That way everyone can see my answer or chime in. Alternatively, you may send me a message through Canvas or contact me by email (anzinged@oregonstate.edu). In emails, please tell me your name and the course number. Finally, if you prefer to chat in person or over Zoom, send me a message or email to schedule a time.

Course Credits

This course combines approximately 90 hours of instruction, labs, and exams for a total of 3 credits.

The primary aim of this course is to teach you how to identify trees and shrubs native to North America and the Pacific Northwest both from memory and through the use of botanical keys. Identifying plants requires that you memorize physical characteristics and names. Most of your time in this course will be spent learning these key characteristics and names, and then *practicing* your ability to identify trees and shrubs quickly.

Memorization takes time, effort, and repetition. It will be difficult to succeed in this course if you do not take the time to practice identification. Several opportunities for practice will be offered in this class.

Technical Assistance

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support via chat, phone, or e-mail through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the OSU Help Desk for assistance. You can call (541) 737-3474, email osuhelpdesk@oregonstate.edu or visit the OSU Computer Helpdesk online.

Required Learning Resources

Textbooks

The textbooks are available at the [OSU Beaver store](#).

- The Sibley Guide to Trees. D.A. Sibley. 2009. Knopf. ISBN 978-0-375-41519-7
- The Manual of Oregon Trees and Shrubs, 11th edition. Jensen. 2015. John Bell and Associates.
- Trees to Know in Oregon. Jensen. 2021. EC 1540. OSU Extension. ISBN 978-0-870-71120-6

Canvas

Access to course announcements, learning materials, assignments, and your grades will be through Canvas. I recommend visiting the course Canvas page several times per week. The course material is divided into 10 weekly modules. Please complete each the learning materials and assignments in each module by Sunday.

Measurable Student Learning Outcomes

1. **Students will be able to identify and classify principal families and genera of North American forest trees.**

You will be able to classify forest trees of North America and to identify and name principal genera and describe their key characteristics. The intent is to enable you to visit different forest regions of North America and have a foundation on which to construct more detailed knowledge via local plant keys and references. Most genera native to North American forests are also native to Europe and Asia, so this knowledge transfers easily to much of the northern hemisphere.

2. **Students will be able to identify trees native to Pacific Northwest forests.**

You will be able to name and identify common tree and shrub species native to the Pacific Northwest. For each species, you will be exposed to ecology and natural history, range, and principal historical and current uses. The intent is to enable you to visit and work in Pacific Northwest forests with only infrequent reference to printed tree guides.

3. **Students will use tree-related resources to summarize biological and ecological information about trees**

You will develop a technical vocabulary (of about 150 terms) that allows you to read literature on the identification, structure, and classification of woody plants. You will be able to use printed keys to identify trees and shrubs with which you are unfamiliar. You will be able to find answers to common questions about the natural history of trees using reliable web-based forestry references. You will learn how to write about trees, using common conventions of plant-based literature for names and citations. The intent is to prepare you to become a life-long learner about trees.

4. **Students will be able to describe the forest regions of the Pacific Northwest, North America, and the World.**

You will be able to name and locate principal terrestrial biomes of the world, with an emphasis on forested biomes. You will be able to describe the principal North American forest types, their species and associations, important ecological attributes, and human uses. The intent is to help students understand key factors that characterize and influence forests of the world.

Evaluation of Student Performance

- Group research projects – 50 points (10 @ 5 points each) (5%)
- Lecture quiz questions – 45 points (9 @ 5 points each) (5%)
- Lecture quizzes – 150 points (3 @ 50 points each) (16%)
- Terminology Exam – 100 points (11%)
- Lab notebook – 100 points (11%)
- Broadleaf Identification Exam -- 240 points (26%)
- Conifer Identification Exam -- 240 points (26%)

Total: 925 points

Grading Scale

A	93%+	C+	78-79%	D-	60-61%
A-	90-92%	C	72-77%	F	<60%
B+	88-89%	C-	70-71%		
B	82-87%	D+	68-69%		
B-	80-81%	D	62-67%		

Week	Lecture (in person)	Lab (in person)	Recitation (in person)	Canvas
0	Topic: Introduction	---	---	Recorded lectures: Scientific classification & nomenclature Intro Survey (extra credit, due Sunday)
1	Topic: Tree morphology & botanical nomenclature Group research project 1 (5 pts)	Topic: Botanical terminology Lab notebook 1 (10 pts)	---	Recorded lectures: Tree morphology and function Lecture quiz questions 1 (5 pts, due Wednesday) Terminology Exam (100 pts, due Sunday of week 4)
2	Topic: Broadleaved trees of North America- I Group research project 2 (5 pts)	Topic: Identification of broadleaved trees and shrubs Lab notebook 2 (10 pts)	---	Recorded lectures: Broadleaved trees of North America-I Lecture quiz questions 2 (5 pts, due Weds) Terminology Exam (100 pts, due Sunday of week 4)
3	Topic: Broadleaved trees of North America-II Group research project 3 (5 pts)	Topic: Identification of broadleaf trees and shrubs Lab notebook 3 (10 pts)	---	Recorded lectures: Broadleaved trees of North America-II Lecture quiz questions 3 (5 pts, due Weds) Terminology Exam (100 pts, due Sunday of week 4)

Week	Lecture (in person)	Lab (in person)	Recitation (in person)	Canvas
4	Topic: Broadleaved trees of North America-III Group research project 4 (5 pts)	Topic: Identification of broadleaf trees & shrubs Lab notebook 4 (10 pts)	---	Recorded lectures: Broadleaved trees of North America-III Lecture quiz questions 4 (8 pts, due Weds) Terminology Exam (100 pts, due Sunday)
5	Topic: Broadleaf review Group research project 5 (5 pts) Lecture Quiz 1 (50 pts, Thursday)	Topic: Review-Broadleaf tree and shrub identification Lab notebook 5 (10 pts)	Practice--Broadleaf Identification Exam (0 pts, Tues & Thurs 4-6pm)	---
6	Topic: Conifers of North America-I Group research project 6 (5 pts)	Topic: Identification of conifers and shrubs Lab notebook 6 (10 pts)	Broadleaf Identification Exam (240 pts, Tues or Thurs 4-6pm)	Recorded lectures: Conifers of North America-I Lecture quiz questions 5 (5 pts, due Weds)
7	Topic: Conifers of North America-II Group research project 7 (5 pts)	Topic: Identification of conifers and shrubs Lab notebook 7 (10 pts)	---	Recorded lectures: Conifers of North America-II Lecture quiz questions 6 (5 pts, due Weds)
8	Topic: Forest biomes -I Group research project 8 (5 pts) Lecture Quiz 2 (50 pts, Thursday)	Topic: Review-conifer and shrub identification Lab notebook 8 (10 pts)	Practice Conifer Identification Exam (0 pts, Thursday 4-6pm)	Recorded lectures: Forest biomes-I Lecture quiz questions 7 (5 pts, due Weds)
9	Topic: Forest Biomes-II Group research project 9 (5 pts)	Topic: Review-conifer and shrub identification Lab notebook 9 (10 pts)	Practice Conifer Identification Exam (0 pts, Tuesday 4-6pm)	Recorded lectures: Forest biomes-II Lecture quiz questions 8 (5 pts, due Weds)
10	Topic: Forest Biomes-III Group research project 10 (5pts)	Topic: Lab notebooks Lab notebooks DUE (100 pts total)	Conifer Identification Exam (240 pts, Tues or Thurs 4-6pm)	Recorded lectures: Biomes-III Lecture quiz questions 9 (5 pts, due Weds)
Finals				Lecture Quiz 3 (50 pts, due Friday)

Warning! This is a fast-paced class and timely participation is expected. It is very difficult to catch up if you fall behind. It will also take a lot of time spent in independent study and practice.

That said, I understand there is a nasty virus working its way around the community. If you are unable to meet a deadline due to illness, family obligations, mental health, etc., please let me know as soon as you can, ideally before the due date, and we will work out a plan for completing the work.

Community Statement

We live on a forested planet. One of my goals for this class is broaden your sense of community to include trees and to introduce you to your tree neighbors. Though the profession of forestry in the U.S. over the last century has been largely limited to white men, everyone has a stake in the care and management of forests.

This is especially true the forest -rich state of Oregon. Every student should feel safe and welcome to contribute in this course and know they belong in the OSU College of Forestry.

As the instructor, I will try to establish a welcoming, inclusive tone whenever possible, but ultimately the responsibility for cultivating a safe and welcoming community belongs to the students—that means you! Fortunately, being part of a safe and welcoming community is not too hard. A good place to start is to recognize (and continually remind yourself) of the following facts:

- Your classmates come from a variety of cultural, economic, and educational backgrounds. Something that is obvious to you may not be obvious to them.
- Your classmates are human beings with intelligence and emotions.
- Your classmates are here to learn. They have the right to pursue their education without being distracted by others' disruptive behavior, or made uncomfortable by inappropriate jokes.

If each of us remembers these facts and acts with corresponding decency, respect, and professionalism, the course will be better for everyone.

Some students might be inclined to shrug this off and perhaps crack a joke about safe spaces or political correctness. If that's you, please also know that if you make a fellow student uncomfortable by mocking them, making inappropriate jokes, or making unwanted advances, it constitutes harassment and will be taken seriously. However, I hope that we can all approach this positively. Treat your classmates as respected colleagues, support each other when needed, have fun without spoiling it for anyone else, and everybody wins.

If you feel like your performance in the class is being impacted by your experiences outside or inside of class, please don't hesitate to talk with me or message me. I want to be a resource for you.

Incompletes

Incomplete (I) grades will be granted only in emergency cases and if the student has turned in 50% of the points possible. If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away.

Academic Calendar

All students are subject to the registration and refund deadlines as stated in the Academic Calendar: <https://registrar.oregonstate.edu/osu-academic-calendar>

Statement Regarding Students with Disabilities

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Additionally, Canvas, the learning management system through which this course is offered, provides a [vendor statement](#) certifying how the platform is accessible to students with disabilities.

Expectations for Student Conduct in this Classroom

Students are expected to conduct themselves in the course (in class and online) in compliance with the university's regulations regarding civility and public health. Student conduct is governed by the university's policies, as explained in the Student Conduct Expectations. **Student Conduct Expectations link:** <https://beav.es/codeofconduct>

Academic Integrity

Students are expected to comply with all regulations pertaining to academic honesty. For further information, visit [Student Conduct and Community Standards](#), or contact the office of Student Conduct and Mediation at 541-737-3656.

Reach Out for Success

University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success at oregonstate.edu/ReachOut. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255)