# **FES 342 Forest Types of the Northwest**

FES 342, Section 400 (CRN 32453) Term: Winter 2022 Credits: 3

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#### Course description:

Forest trees in nature are aggregated into stable or transitory associations known as forest cover types. Due to unique species composition and environment, forest cover types respond differently to disturbances such as logging, fire, and flood and provide unique wildlife habitat. This course teaches a basic knowledge of forest cover types, their species composition and ecology, which is applicable to the fields of forestry, fire management, wildlife management, and forest ecology. There are no prerequisites for this course.

#### Canvas:

This course will be delivered via Canvas, your online learning community, where you will interact with your classmates and with me. Within the course site you will access the learning materials and syllabus; submit assignments; take quizzes; and display your projects. To learn about Canvas, visit the <u>Reference Guide for Students</u>. For technical assistance, see <u>http://ecampus.oregonstate.edu/services/technicalhelp.htm</u> and the <u>Canvas Help Center</u>.

#### Contacting the instructor

Please contact me through Canvas or by email (<u>anzinger@oregonstate.edu</u>). I strive to answer emails within 24 hours during the work week and within 48 hours over the weekend.

#### Course content:

| Week | Topics   | Assignments                             |
|------|--|---|
| 1    | Intro to tree ID<br>Environment of the NW                                      | W1 Class Discussion                     |
|      |  |   |
| 2    | Forest Composition & Habitat<br>Ecological Succession<br>Forest Classification | W2 Class Discussion                     |
| 3    | North Pacific Forests:<br>Western hemlock<br>Sitka spruce                      | W3 Class Discussion<br>W3 Lab Worksheet |

|        | Western redcedar-Western hemlock<br>Coastal true fir-Hemlock<br>Port-Orford-cedar  |   |  |
|--------|--|---|--|
| 4      | North Pacific Forests:<br>Pacific Douglas-fir<br>Douglas-fir-Tanoak-Pacific madrone<br>Pacific ponderosa pine-Douglas-fir<br>Sierra Nevada Mixed Conifer | QUIZ 1 (covers weeks 1-3)<br>W4 Lab Worksheet |  |
| 5      | Riparian Forests:<br>Red alder<br>Black cottonwood-Willow<br>Cottonwood-Willow   | W5 Class Discussion<br>W5 Lab Worksheet       |  |
| 6      | Interior Low Elevation Forests:<br>Interior ponderosa pine<br>Western juniper<br>Pinyon-Juniper  | W6 Class Discussion<br>W6 Lab Worksheet       |  |
| 7      | Interior Middle Elevation Forests:<br>Western white pine<br>Aspen<br>Lodgepole pine  | QUIZ 2 (covers weeks 4-6)<br>W7 Lab Worksheet |  |
| 8      | Interior Middle Elevation Forests:<br>Interior Douglas-fir<br>Western larch<br>Grand fir<br>White fir  | W8 Class Discussion<br>W8 Lab Worksheet       |  |
| 9      | Interior High Elevation Forests:<br>Mountain hemlock<br>Engelmann spruce<br>Subalpine fir<br>Whitebark pine  | W9 Class Discussion<br>W9 Lab Worksheet       |  |
| 10     | Alaskan Boreal Forests:<br>White spruce<br>Black spruce<br>Paper birch<br>Balsam poplar  | W10 Lab Worksheet<br>Research Project         |  |
| Finals |  | QUIZ 3 (covers weeks 7-10)                    |  |

# Course learning outcomes:

After taking this course, students will able to:

- Map and describe the major physiographic regions of the greater Northwest.
- Describe how climate, soils, physiography influence forests.
- Describe key steps in forest succession and discuss traits commonly associated with pioneer and climax tree species.
- Explain the principles of forest classification and describe classification systems commonly used in the Northwest.
- Recognize forest cover types of the Northwest based on their geographical location and species composition.
- Name (common and scientific) the dominant tree species found in each forest cover type of the Northwest.

- Describe how species composition changes in forest cover types after disturbance and through the stages of forest succession.
- Summarize and communicate ecological and management information as it relates to a particular forest cover type.

# Learning materials:

All course learning materials are available on Canvas.

# Textbooks

There are three Ebooks used in this course. They are all available through the OSU Valley library and linked through Canvas.

- Forest Cover Types of the United States and Canada. 1980. Eyre, F.H. Society of American Foresters. ISBN-10: 068630697X ISBN-13: 978-0686306979
- <u>A Field Guide to California and Pacific Northwest Forests (Peterson Field Guides)</u>. 1998. Kricher, J.C. Houghton Mifflin Harcourt Publishers. **ISBN-10**: 0395928966 **ISBN-13**: 978-0395928967
- <u>A Field Guide to Rocky Mountain and Southwest Forests (Peterson Field Guides)</u>. 1999/ Kricher, J.C. Houghton Mifflin Harcourt Publishers. ISBN-10: 0395928974 ISBN-13: 978-0395928974

Note: These books are occasionally available through online books sellers. Feel free to order them if you wish. They are all out of print and so they are difficult to impossible to order through the bookstore.

## Lectures

Lecture presentations (slides with audio) cover the composition and ecology of forest cover types of the Northwest. They are organized into weekly learning modules.

# Links

Links to research databases on trees and forests are available on Canvas.

# **Evaluation of student performance:**

## Quizzes

Three non-cumulative quizzes will be held during the term. All quizzes will be administered through Canvas. Test proctors will <u>not</u> be required.

#### Lab Worksheets

Eight lab worksheets will be completed through the term. Worksheets will consist of short-answer questions on the characteristics of principle tree species. Information necessary for completing lab worksheets is available online.

#### **Research Project**

A 6-9 page research paper on a Northwest forest cover type which addresses <u>one</u> of the following topic areas:

- Fire ecology and fire management
- Wildlife habitat and forest/wildlife interactions
- Ecological Forestry: silviculture and harvest methods
- Pests and Pathogens: ecological impacts and integrated pest management
- Traditional Ecological Knowledge

#### **Class Discussions**

Seven class discussions. In class discussions, you will apply your knowledge of forest cover types to important forest management issues.

#### Grading:

| Class Discussions (7@ 10 pts/each) | 70  |
|------------------------------------|-----|
| Quizzes (3 @ 50 pts/each)          | 150 |
| Lab worksheets (8 @ 10 pts/each)   | 80  |
| Research project                   |     |
|                                    | 350 |

#### Grading scale (%):

| А  | 92.5 - 100  | С  | 72.5 - 78.4 |
|----|-------------|----|-------------|
| A- | 89.5 - 92.4 | C- | 69.5 - 72.4 |
| B+ | 87.5 - 89.4 | D+ | 67.5 - 69.4 |
| В  | 82.5 - 87.4 | D  | 62.5 - 68.4 |
| B- | 79.5 - 82.4 | D- | 59.5 - 62.4 |
| C+ | 77.5 - 79.4 | F  | < 59.5      |

# **Course Policies:**

## Learning Community

Every student should feel safe and welcome to contribute in this course and should know that they belong in the 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 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 or unwanted sexual interest.
- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.

If each of us remembers these facts and acts with corresponding decency, respect, and professionalism, the course will certainly 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, that 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.

## Quizzes

Makeup quizzes will be given only for missed quizzes excused in advance by the instructor. Excused absences will generally not be given after the absence has occurred, except under very unusual circumstances. Regrades of quizzes will be performed when there is an error and the student requests it. All requests for regrading must be made within 3 class days of the day the quiz is returned. After that period of time, grades will be fixed and will not be changed.

## Course Incompletes

Take this course only if you plan to finish it in a timely manner (during this term). I assign an "I" or incomplete only when there is a strong and compelling case for doing so (e.g., health reasons, military commitment). I will not consider assigning an incomplete unless the individual has completed over 50% of the course tasks. 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. Please note that students receiving incompletes are subject to assignment weight reduction (and consequently may not be eligible for A or A- grades) because some of their work will be submitted late.

## • 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 <a href="http://ds.oregonstate.edu">http://ds.oregonstate.edu</a>. 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.

Student Conduct Expectations link: <u>https://beav.es/codeofconduct</u>

## • Ecampus 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 <u>resources that assist with wellness and academic success</u>. Ecampus students are always encouraged to discuss issues that impact your academic success with the <u>Ecampus Success Team</u>.

Email <u>ecampus.success@oregonstate.edu</u> to identify strategies and resources that can support you in your educational goals.

If you feel comfortable sharing how a hardship may impact your performance in this course, please reach out to me as your instructor. (Instructors: consider tailoring this statement to your personal voice.)

• For mental health:

Learn about <u>counseling and psychological resources for Ecampus</u> <u>students</u>. 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).

• For financial hardship:

Any student whose academic performance is impacted due to financial stress or the inability to afford groceries, housing, and other necessities for any reason is urged to contact the Director of Care for support (541-737-8748).

## • Technical Assistance

If you experience computer difficulties, need help downloading a browser or plugin, assistance logging into the course, or if you experience any errors or problems while in your online course, reach out for help from <u>Ecampus Technical</u> <u>Assistance</u>. You may also contact the instructor for assistance.