

Forestry & Society GEO 410/510 Spring 2019

Instructor: Lucas Silva, lsilva7@uoregon.edu

Office Hours: 2 to 5 pm on Tuesdays (Col 248)

GE: Schyler Reis

Lecture: M & W 4:00 – 6:00 pm. Room TBD

Course Description

This course explores ecological, biogeochemical, and social dimensions of forests as a path to a sustainable future. The course seeks to introduce students interested in natural resource managers and future environmental researchers to the scientific basis of forest conservation and management through a series of 10 lectures and 10 sessions of student-led discussion in a group setting.

The course is divided into three modules:

- The first module focuses on interdisciplinary science to present the importance of recent discoveries and principles that connect local biological and ecological forces that inform forest conservation and management within the context of global environmental change and climatic instability.
- The second module focuses on issues of forest governance and the realities on the ground by analyzing the dynamics that exist between the various institutions and initiatives at the national and global levels and their contributions to advancing sustainable management and conservation objectives.
- The third module focuses on forests as the source of essential services such as water, energy, and medicine that are keys to the survival and well being of millions of people. This module examines forestry as a form of development intervention and how it can better contribute to the achieving the goal of community development.

Learning objectives

At the end of the course, the students should be able to:

- Describe basic scientific methods and principles that guide modern forest research
- Understand the role of forest governance and community development in promoting sustainable forest management
- Explain principles and strategies of forest research in the context of sustainable forest management and conservation
- Analyze the dynamics of forest ecosystems in response to environmental change at national and international levels

-Synthesize lessons from international organizations that connect the scientific and social dimensions of forest research

Readings: Lectures and reading materials will include scientific articles as well as select chapters from the following books (made available on Canvas):

[Ecological Forest Management](#)

by Jerry F. Franklin, K. Norman Johnson, et al. | Mar 19, 2018

[Ecological Climatology: Concepts and Applications](#)

by Gordon Bonan | Dec 1, 2015

[Forests and Society: Sustainability and Life Cycles of Forests in Human Landscapes](#)

by Kristina A Vogt, Daniel J Vogt, et al. | Nov 15, 2006

[Forest Dreams, Forest Nightmares: The Paradox of Old Growth in the Inland West](#)

by Nancy Langston and William Cronon | Jul 1, 1996

General lecture topics:

Forest biomes	Climate change	Governance
Conservation	Deforestation	Reforestation
Fire	Carbon cycle	Water cycle

Grading:

Quizzes	TBD points
Essays	TBD points
Group project	TBD points

A ≥ 90%	B ≥ 80%
C ≥ 70%	D ≥ 60%

Essays: Students will report on four (4) different subjects related to this course. Each essay will be at least 800 words, typed, and spell checked. Essays will list the subject area, title of article, author(s), and sources. Potential topics include: forest ecology, forest soil biology, climate change and carbon sequestration, forest economics, forest governance, socio-ecological stability, data analysis and statistics, etc.

Group project: Students will work in groups of three (3) led by a graduate student to prepare a research project informed by a conservation or management argument to be presented in a 20 min power point seminar. The seminar will have a discussion format focusing on contentious forest issues be reconciled at the end of each activity in connection with instructor (see topics listed above). Teams will be judged on content, persuasion, and teamwork.