

LAND OF THE LONG WHITE CLOUD: ECOSYSTEMS OF NEW ZEALAND

Course: Undergraduate: FES 499; Graduate: FES 599 Special Topics in Forestry

Credits: 3 undergraduate/ 1 graduate

Offered: Pre-fall 2022

Travel Dates: September 6 – 18, 2022

Course Dates: (Fall Z5) September 8 – October 30, 2022

Course Instructors:

Dr. Christopher Still, Forest Ecosystems and Society Department

Dr. Dave Shaw, Forest Engineering and Resource Management Department

Course Description

This course explores the complex ecological, climatic, and management dimensions of forest ecology, conservation, and restoration through an immersive experience in New Zealand. Over a period of 10 days, students will be part of an intensive investigation of forest ecology and management in a wide range of New Zealand forest ecosystems. This will include natural New Zealand forests and managed forest plantations in a range of settings from the volcanic landscapes of the North Island, to the Southern Alps in the South Island. Students will meet with New Zealand scientists and practitioners who are working on aspects of forest ecology, resource conservation, research, and management.

Students will be exposed to multiple perspectives, requiring them to listen and observe carefully, think critically, and reflect deeply on the complex web of issues facing New Zealand forest managers and conservationists. Through this immersive learning experience, students will be able to critically analyze forest conservation, restoration, and management challenges in their own home countries.

Itinerary

The course will be conducted primarily in two locations: 1) Rotorua and surroundings on the North Island; and 2) the field stations at Cass and Westport on the South Island owned and managed by the University of Canterbury. After receiving an overview of New Zealand forest ecosystems, management, and conservation at Rotorua, we will visit

nearby native and commercial forest ecosystems. This will include a discussion of bio-security concerns in NZ. We will then travel to the South Island for more focused research into forest ecosystems surrounding a field station located west of Christchurch in low-elevation mountains near the Southern Alps foothills. This area harbors fairly pristine primary forest, in a diverse landscape including some managed forests including plantations planted with exotic species (like Radiata pine), small-scale agriculture, and other development. We will also visit the west coast of the South Island and the nearby high mountain passes like Arthur's Pass National Park. Be aware we may experience a range of conditions, and it's likely to be wet and cold at various times as September is the end of the winter in New Zealand.

Oregon State University students will participate in activities including forest tours, trail hiking, field ecology measurements and analyses, and group presentations. The tentative itinerary is listed below. *Course parameters are subject to change if needed.*

- Day -1 (Tuesday, Sept 6): Depart Portland International (or home airport)
- Day 0 (Wednesday, Sept 7): In transit
- Day 1 (Thursday, Sept 8): Arrive Auckland, travel to Rotorua via Hobbiton. Overnight in Rotorua, evening dinner.
- Day 2 (Friday, Sept 9): Visit native forests and discuss forest management and NZ biosecurity issues with forest scientists. Overnight in Rotorua.
- Day 3 (Saturday, Sept 10): Visit Waimangu Geothermal Park. Overnight in Rotorua.
- Day 4 (Sunday, Sept 11): Visit Tongariro National Park (discuss geological and ecological differences between North and South islands). Overnight in Rotorua.
- Day 5 (Monday, Sept 12): Flight to Christchurch. Tour botanical gardens and visit the University of Canterbury. Overnight in Christchurch.
- Day 6 (Tuesday, Sept 13): Morning with Scion researchers, briefing on NZ South Island forests/recreation/conservation. Get groceries and drive to Cass field station. Prepare dinner followed by an evening orientation walk. Overnight at Cass field station.

- Day 7 (Wednesday, Sept 14): Climb the mountain at the field station. See native forests and other vegetation. Examine landscape and measure tree biodiversity and other aspects of forest structure and composition. Overnight at Cass field station.
- Day 8 (Thursday, Sept 15): Drive from Cass to Westport via Arthur's Pass, hike about. Overnight at Westport field station.
- Day 9 (Friday, Sept 16): Visit Paparoa National Park and see coastal temperate rainforests. Overnight at Westport field station.
- Day 10 (Saturday, Sept 17): Drive from Westport to Christchurch via Lewis Pass, hike about. Evening Dinner Celebration of the Land of the Long White Cloud. Overnight in Christchurch.
- Day 11 (Sunday, Sept 18): Students travel to PDX (or home airport), arrive same day!

Weekly Engagement in the Fall Quarter

This class is a non-traditional course that adheres to the Office of the Registrar's Fall term Z5 extension course dates: September 8 – October 30, 2022 (7 weeks). Throughout the first half of fall term, we would like you to maintain your engagement with New Zealand (NZ) by reflecting on the contrasts between the NZ environment and culture and what you experience in your daily life back in Oregon. This is part of the Experiential Learning Cycle. Examples could include trivial daily activities like being a pedestrian or driving on the opposite of the road or more profound reflections on how your experience in NZ affected your outlook on life.

- Week 0: Pre-fall travel to NZ September 6 – 18 (see itinerary above)
- Week 1: Reflection on NZ experience (Canvas); Work with group on project
- Week 2: Reflection on NZ experience (Canvas); Work with group on project
- Week 3: Reflection on NZ experience (Canvas); Work with group on project
- Week 4: Reflection on NZ experience (Canvas); Work with group on project
- Week 5: Group project presentation (hybrid Corvallis/zoom) - to be scheduled with final cohort

Catalogue Description

With the explicit goal of enhancing global learning, this field-based course exposes students to the challenges and opportunities of forest ecology, restoration and conservation, and management in a part of the world that has many parallels with the Pacific Northwest. Students will learn from hands-on field research about managing and in some cases restoring New Zealand forests for a variety of uses, from timber production to wildlife habitat to carbon sequestration. The global context of forest management, restoration, and conversion will be emphasized, with the aim of preparing students to critically analyze similar issues throughout the world.

Student Learning Goals/Expected Outcomes

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

1. Articulate key concepts of forest ecology as applied to forest management and conservation.
2. Work collaboratively in interdisciplinary teams toward established research, education and outreach goals.
3. Develop and articulate research questions and ideas germane to course themes.
4. Collect forest biodiversity and structure data and compare between forest types.
5. Analyze and articulate interconnections between local conditions and global ecological, social, political, and economic trends affecting forest conservation and management.

Prerequisites

To register for this course, students must:

1. Have achieved at least sophomore standing, and a 2.75 GPA or permission of instructor.
2. Submit a complete application through the OSU GO system, which includes a personal essay, unofficial transcript and recommendation.

Student Learning Assessment

Each student will prepare a course portfolio documenting their learning experience and outcomes. Portfolios will include a combination of the following:

1. Personal learning objectives and self-assessment of learning
2. Field notes, writing assignments, journals
3. Class critiques of student presentations
4. Graded final projects, which will consist of videos, podcasts, or on-campus presentations that summarize what was learned and student experiences
5. Student and faculty assessment of student participation in and contribution to class activities

Evaluation of student performance: Grading A-F. Students will be assessed on class participation, in-class presentation, and journal report.

Learning resources: there will be no textbook for this course; relevant readings and other materials (e.g., popular media, news articles, videos) will be provided in a Box folder.

Statement Regarding Students with Disabilities: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

Expectations for Student Conduct: All students will be expected to follow the *student conduct and community standards* of Oregon State University (<http://studentlife.oregonstate.edu/studentconduct/offenses-0>). Cheating or plagiarism by students is subject to the disciplinary process outlined in the Student Conduct Regulations. Students are expected to be honest and ethical in their academic work. Academic dishonesty is defined as an intentional act of deception in one of the following areas:

- **CHEATING** - use or attempted use of unauthorized materials, information or study aids or an act of deceit by which a student attempts to misrepresent mastery of

academic effort or information. This includes unauthorized copying or collaboration on a test or assignment or using prohibited materials and texts.

- **FABRICATION** - falsification or invention of any information (including falsifying research, inventing or exaggerating data and listing incorrect or fictitious references.
- **ASSISTING** - helping another commit an act of academic dishonesty. This includes paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, or taking a test/doing an assignment for someone else (or allowing someone to do these things for you). It is a violation of Oregon state law to create and offer to sell part or all of an education assignment to another person (ORS 165.114).
- **TAMPERING** - altering or interfering with evaluation instruments and documents.
- **PLAGIARISM** - representing the word or ideas of another person as one's own OR presenting someone else's words, ideas, artistry or data as one's own. This includes copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project, then submitting it as one's own.

Behaviors disruptive to the learning environment will not be tolerated and will be referred to the Office of Student Conduct for disciplinary action.