

San José State University
Environmental Studies Department, College of Social Sciences
ENVS 173, Forest Ecology and Conservation, Spring 2016

Instructor: Dr. Will Russell

Office Location: Washington Square Hall 115E

Office Hours: Wednesdays 11:00-2:30

Email: will.russell@sjsu.edu

Class Days/Time: Friday 10:30-3:30

Classroom: DMH 164

Prerequisites: ENVS 01 and ENVS 10, or upper division standing

“Any fool can destroy trees. They cannot defend themselves or run away.” – John Muir

Catalog Description

A field based course that provides students with a conceptual framework and practical tools necessary for understanding sustainable forest management. Students explore issues such as forest restoration, community based forestry, forest diversity, agroforestry, and techniques for monitoring forest health.

Student Learning Objectives

This course is designed to provide students with the conceptual framework and practical tools that are necessary for understanding the ecology and management of forests. Through this course students will gain an understanding of the historical development of our current public policies on forest management, and contrast those policies to those developed by other cultures past and present. Students will explore issues such as forest restoration, community based forestry, forest diversity, effects of burning and logging on forests, and techniques for monitoring forest health. They will investigate the use of forest resources by traditional cultures, the spiritual relationship between human beings and forests, and the role of forests in art and literature. Hands-on field techniques will be emphasized.



Required Materials

Textbooks (Available at the Henry Cowell State Park Bookstore)

The Last Stand: The War Between Wall Street and Main Street over California's Ancient Redwoods. 1995. by David Harris.

Plants of the California Coast Redwood Region. 1988. By: K. Lyons and M. B. Cooney-Lazaneo. Looking Glass Press.

Additional Required Readings available on Canvas

Field Notebook Spiral or hardbound notebook for: field activities and quizzes, daily plant list, drawings and descriptions of all plants (and other organisms) identified in the field, notes from all field lectures (including those by guest speakers).

Field Trips

This course will be taught primarily in the field. All field trips will take place on Friday's beginning at 10:30 and will continue well into the afternoon, and will often include moderate to strenuous hikes.

Transportation

Most of our field sites will be in the Santa Cruz Mountains 60-90 minutes from San Jose State. Transportation to field sites will be your responsibility. Carpools are highly recommended, not only because they are more environmentally friendly, but also because there is a \$10-15 per-car parking fee at some of the parks.

Wilderness Preparation and Etiquette

To-do List

1. Always be on time – we will be leaving for our hikes promptly, and will not be waiting for stragglers.
2. Wear comfortable walking shoes and weather appropriate layered clothing.
3. Bring rain gear if necessary!
4. Bring plenty of water and snacks.
5. Bring your field notebook, pens, plant guides, camera, etc.
6. Carry any medications or first-aid supplies that you might need on the trail (epipen, band-aids for blisters, etc.).
7. Be respectful of other park visitors at all times.
8. Be prepared to help/support your classmates when necessary.
9. Have fun, swim in a creek, hug a tree, kiss a slug, etc.

Do-not-do List

1. Do not go to the restroom in the creek!
2. Do not drink water from the creek (see #1)!
3. Do not eat any berries, mushrooms, or other forest organisms without explicit instructions from the instructor!
4. Do not approach wildlife (deer, skunks, yellow jackets, rattlesnakes, etc.)!
5. Do not cut trail!
6. Do not play amplified music in the wilderness.
7. Do not experiment with mind-altering substances during the field trips. Save the party for later, people – we need to keep our wits about us!

Course Requirements and Assignments

Weekly Quiz

Completion of a short weekly online quiz (on Canvas) will be required before each class meeting on Friday. The quiz will include material from readings, lectures, class discussions, and any other class materials.

Field Activity

Each class meeting in the field will include an activity. Results of the field activity should be turned in at the end of the day, or recorded in your field notebook. As the course instructor if you are unclear about the days assignment.

Group Project

Research an instructor-approved natural or cultural feature that has not been discussed in-depth within the class. Presentations should be site-specific, or species specific. Groups can include 3-4 students. Examples of potential topics include: 1) The life history and ecology of a particular species or class of organisms (i.e. lichens, micorrhizal fungi, banana slugs, sword fern, etc.); 1) Forest processes such as succession, disturbance, or community interactions.

Presentations: Plan on approximately one hour of presentation time. The presentation should be hands-on and experiential in nature – in other words, show us don't just tell us! The presentation can take place in one of the parks already visited, or at another instructor-approved location. All members of the group must participate fully, and will be graded separately.

Report: The topic will also be presented in a written report 1000-2000 words with a minimum of ten primary (non web-based) resources. Use the APA (author, date) style for references.

Final Exam:

A final exam will be given in the field on the material presented in the lectures, readings, and field labs. Half of the exam will be on plant names. Common names will be required, scientific names will be extra credit. Spelling does count with plant names!

Class Participation:

Attendance on all field trips is essential part of this class. Please be respectful of your classmates by listening quietly when the instructor, guest speakers, or student presenters are speaking. We are a big group, often on a narrow trail, it is very difficult for students to hear when extraneous conversations are competing.

Grading

Your grade in this course will be based on written and oral reports, exams, field trip reports, field lab activities, and participation. See chart below.

<i>Assignment</i>	<i>Points</i>
Field Activities	20
Online Quizzes	20
Group Project Presentation	30
Final Exam	30

<i>Grade Percentage Breakdown</i>	
97% and above	A+
90% - 96%	A
87% - 89%	B+
80% - 86%	B
77% - 79%	C+
70% - 79%	C
60% - 69%	D
0% - 59%	F

University Policies

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The [University's Academic Integrity policy S07-2](http://www.sjsu.edu/senate/S07-2.htm), located at <http://www.sjsu.edu/senate/S07-2.htm>, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Integrity Policy S07-2 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the [Disability Resource Center](http://www.drc.sjsu.edu/) (DRC) at <http://www.drc.sjsu.edu/> to establish a record of their disability.

Tentative Course Schedule – ENVS 173 Spring 2016

Subject to revision due to weather, etc. Check for updates before heading to field sites

Date	Content	Reading	Activities/ Assignments
1/29	<p><i>On Campus</i></p> <ul style="list-style-type: none"> • Class introductions. • Course logistics – field time, transportation, field gear and tools. • <i>Lecture</i> – A Brief Introduction to Forest Ecology 		
2/5	<p><i>Field Day</i> Topics: Ecotone - Contrasting forest characteristics. Field groups and equipment. Location: Henry Cowell State Park 101 North Big Trees Park Road, Felton, California, 95018</p>	TBA	<i>Quiz 1</i>
2/12	<p><i>Field Day</i> Topics: Old-growth, edge effects, and the mystery of the Twisted Forest. Location: Forest of Nisene Marks. 100 Aptos Creek Rd, Aptos, CA 95003.</p>	Last Stand Ch 1-2	<i>Quiz 2</i>
2/19	<p><i>Field Day</i> Topics: Historic management and resource use. Ferns, ferns, ferns!!! Location: Fall Creek Unit. 1400 Felton Empire Rd, Felton, CA 95018</p>	Last Stand Ch 2-4	<i>Quiz 3</i>
2/26	<p>Field Day Guest Speaker: Greg McKenna Topics: Tree climbing and canopy research. Location: TBA</p>	Last Stand Ch 5-6	<i>Quiz 4</i>
3/4	<p><i>Field Day</i> Guest Speaker: Terris Kasteen, California Department of Fish and Wildlife Topics: Fire ecology, resistance and resilience in post fire recovery Location: Bonny Dune Ecological Reserve. 975 Martin Road, Santa Cruz, CA 95060</p>	Last Stand Ch 7-8 Hanson 2010	<i>Quiz 5</i>

Date	Content	Reading	Activities/ Assignments
3/11	Field Day <u>Guest Speaker:</u> Rachel Iazzeri-Aerts <u>Topics:</u> Fire in the Redwoods <u>Location:</u> Mt. Madonna County park. Data Gathering????	Last Stand Ch 9-10	Quiz 6
3/18	Field Day <u>Topics:</u> Field Data Collection <u>Location:</u> Fall Creek Unit. 1400 Felton Empire Rd, Felton, CA 95018	Last Stand Ch-11-12	Quiz 7 Group Project Topics Due
3/25	Field Day <u>Topics:</u> Forest Communities. (knobcone pine). <u>Location:</u> Berry Creek Falls Trail. Big Basin State Park. 21600 Big Basin Way, Boulder Creek CA, 95006	Last Stand Ch 13-14	Quiz 8
4/1	Spring Break---No Class		
4/8	Field Day <u>Topics:</u> Field Data Collection <u>Location:</u> Fall Creek Unit. 1400 Felton Empire Rd, Felton, CA 95018	Last Stand Ch 14-15	Quiz 9
4/15	Field Day <u>Topics:</u> Field Data Collection <u>Location:</u> Fall Creek Unit. 1400 Felton Empire Rd, Felton, CA 95018	Last Stand Ch 16-17	Quiz 10
4/22	Field Day <u>Topic:</u> Group Presentations <u>Location:</u> TBA	Last Stand Ch 18	Quiz 11
4/29	Field Day <u>Topic:</u> Group Presentations <u>Location:</u> Fall Creek Unit of Henry Cowell State Park.	Last Stand Ch 11-12	Quiz 12
5/6	Field Day <u>Topic:</u> Group Presentations <u>Location:</u> TBA		Group Project Due
5/13	Field Day <u>Topic:</u> Final exam <u>Location:</u>		Final Exam