

ENVS 429: Environmental Leadership Program (ELP)

CRN 12232 ✧ Fall 2017

Required Field Expedition 9/16-9/23 ✧ Lecture Tues 2-3:50 pm, 142 COL

A. Key Personnel and Contact Information:

Role	Name	Email	Phone
ELP Co-Director	Peg Boulay	boulay@uoregon.edu	w. 541-346-5945, c. 541-517-2590
GE Project Manager	Laura Johnson	ljohnso8@uoregon.edu	c. 402-310-7162

B. Course Overview, Format and Philosophy

Invasive species out-compete native plants, change plant communities, reduce wildlife habitat, disrupt ecological processes, and cause economic harm. In this unique expedition-based ELP project, you will assist U.S. Forest Service and Deschutes Land Trust biologists with invasive species surveys and other data collection efforts. This is a one-term service-learning course in which you will implement your community-based project and develop your leadership, collaboration and communication skills. During the Week 0 field expedition, you will collect data on the Metolius Preserve and Newberry National Volcanic Monument in Central Oregon. During the rest of fall term, you will analyze the data, create useful products to communicate your information, and make recommendations based upon your findings.

Your team's success depends upon your active involvement – identifying next steps and taking leadership to ensure the data collection expedition is successful and your products are compelling and professional. It is up to you to identify issues and opportunities as they arise and to deal with them immediately. Active, engaged participation is central to all ELP projects! As a team, you will be responsible for the learning that occurs. Everyone is expected to work together, share their perspectives, and ensure this is a rewarding learning experience for everyone. The ELP provides you with an opportunity to be involved in your community, as well as time to reflect and discuss these experiences. Inspiring an ethic of civic engagement is integral to all ELP projects. The ELP is designed to develop your communication, critical thinking and problem-solving skills and give you the confidence to take leadership roles regarding environmental issues.

Overnight Field Trip

This course includes an 8-day data collection camping expedition. During the camping trip, we will emphasize field methods, safety and sanitation (group hygiene). As a reminder, alcohol and controlled substances (including cannabis) are not permitted at any time during the field trip. You will be asked to complete an emergency contact and health information form. You will be provided handouts summarizing the field trip schedule/logistics and what to bring.

Expectations

You were chosen to participate in this program because we believe you have the background, skills and motivation to succeed. Our expectations are that you:

- Are able to work both independently and in a team.
- Are respectful, professional, and courteous and will be an excellent ambassador in the community.
- Are a creative problem-solver, are able to adapt to new situations and will respond to all situations in a professional manner.
- Have a strong desire to build knowledge and skills, especially collaboration, communication,

problem-solving, speaking, writing and field-based skills.

- ❑ Are excited to learn, interact, and give back to the community.
- ❑ Are dedicated to following protocols and being safe in the field.
- ❑ Commit to contribute at least 120 hours total to your project (the field expedition counts towards the time requirement).

Learning Outcomes

By the end of this project, you will be able to:

- ❑ Describe the ecological and economic impacts of invasive species and identify common invasive plants in Central Oregon.
- ❑ Explain at least one aspect of forest ecology and public land management issues in Central Oregon.
- ❑ Implement field protocols and measurement techniques.
- ❑ Proficiently use tools such as maps, aerial photos, compass, diameter tapes, plant identification books and/or Global Positioning System units.
- ❑ Collect, enter, verify, analyze, interpret and communicate environmental data.
- ❑ Work more effectively in a team (e.g. establish shared norms and processes, facilitate meetings, identify and prioritize tasks and timelines, manage workload in an equitable manner, synthesize individual work into cohesive and high-quality team products, communicate clearly and respectfully, make collaborative decisions using consensus-building techniques, resolve conflicts, and leverage the diverse talents of a team).
- ❑ Develop an attractive, compelling (but simple) website that will continue to provide inspiration and valuable information beyond the end of your project.
- ❑ List 10 best practices for being an environmental professional (e.g. project management, effective resumes, networking, and more)

We encourage you to identify your personal learning objectives, share them with your team and support each other in achieving those goals. For example, do you want to gain experience with using a particular field method or developing a website? Let your team members know and volunteer!

Required Reading & Materials

During this term, you may be assigned very short readings related to your project or the content we cover during the Tuesday ELP workshops. While not a required reading, we recommend that you consult *Shimel, J. 2012. Writing science: how to write papers that get cited and proposals that get funded. Oxford University Press*. This is a helpful resource for your final reports. There will be 2 copies available in the ELP lab and you may also access it electronically through UO Libraries.

Tuesday Workshops and Team Meetings

Each Tuesday Peg and Laura will organize short skills-focused workshops related to: 1) your deliverables, 2) group process, 3) scientific communication, and 4) professional and career development. After each workshop, you will meet with your team and Laura to plan your work.

C. ELP: Roles and Responsibilities, Protocols, and Other Details

Roles and Responsibilities:

- Students are responsible for:
 - Executing your team project from start to finish
 - Participating fully in all data collection and group camping activities

- Completing all products (assignments) on time and in good quality
- Facilitating at least one weekly team meeting
- Coming to all classes and meetings prepared (e.g., completing any readings and/or assigned tasks)
- Keeping a timesheet of project work each week
- Addressing issues/problems as they arise and using problem-solving to address all issues in a proactive and positive manner
- Laura (Graduate Employee [GE] Project Manager) is responsible for:
 - Providing feedback to improve quality and ensuring the project is on track
 - Answering questions and facilitating student problem-solving
 - Developing and/or facilitating Tuesday mini-workshops
 - Evaluating your performance as individuals and a team
 - Communicating with community partner and Peg as needed
- Peg (ELP Co-Director) is responsible for:
 - Working with community partners to develop structure, project goals, procedures and protocols
 - Developing and/or facilitating Tuesday mini-workshops; providing additional training as needed
 - Providing detailed feedback regarding project implementation (visiting sites, observing students in the field, and participating in team debrief meetings)
 - Answering questions/helping solve problems (after consultation with GE Project Managers)
 - Communicating with community partners, technical advisers and funders
 - Raising the funding for the project and completing all reporting requirements
- Community partners are responsible for:
 - Providing the goals and structure for the project
 - Depending on the project, providing background information, training and/or equipment
 - Answering questions and/or providing feedback (through GE Project Manager and/or Peg)

Attendance: Your attendance is required at all Tuesday workshops and team meetings! If you have an unavoidable conflict, contact Laura as soon as possible. You will work with Laura and teammates to problem-solve and identify how you will complete work in the manner that most benefits the team. Absences due to illness are excused if you provide a note from a health care provider. Unexcused absences will dramatically impact your participation grade.

Problem-Solving Protocols: If you are facing a challenge or have questions related to the project, you should first turn to your team for collaborative problem-solving. Challenges always arise, so you should be proactive, act immediately and draw upon the strengths of your team to tackle problems. If the team as a whole is stumped, ask Laura for help. She will facilitate a process to help you work through challenges or answer remaining questions. If issues persist, Laura will invite Peg into the problem-solving process. Depending on the project, Laura or Peg may contact the community partner for input. You should never contact your community partner with a problem without first going through this process! Some projects will have more contact with the community partners than others. Please follow Laura's guidance.

Late Assignments: We are working with community partners and it is critical we meet all our deadlines to maintain good relations! Grades for late assignments will drop 5% each calendar day until submitted.

Incompletes: Incompletes are not available for ELP projects.

Inclusive learning and academic access: If you have a disability (physical or learning), medical condition, or other situation that you think may affect your performance in this class, please let Peg know prior to the camping expedition so that we can make arrangements, if necessary, for your full access to all classroom

activities. You may also wish to contact Disability Services in 164 Oregon Hall at 346-1155 or disabsrv@uoregon.edu.

Academic honesty: We take this very seriously. We expect everyone to strictly adhere to the University Student Conduct Code and University policies regarding academic misconduct (see the UO Office of the Dean of Students website). All work submitted for this course must be your own and be written exclusively for this course. In particular, you must properly acknowledge and document all sources of information (e.g., quotations, paraphrases, ideas). “Cutting and pasting” from the internet is essentially stealing intellectual property and is not acceptable. Also, you must properly acknowledge any photos or other creative materials that you use. If there is any question about whether an act constitutes academic misconduct, it is your obligation to clarify the question with us. Additional information, is available at www.libweb.uoregon.edu/guides/plagiarism/students.

You may not use any copyrighted materials in your website. You may only use materials that you create yourself, obtain permission to use or are public domain. For example, if you decide to add an exciting YouTube video to your website, it is illegal to use copyrighted music. You must properly acknowledge any photos or other creative materials that you use.

Safety and Professionalism: This course involves significant time in the field. You are expected to prioritize safety above everything else. Because you are representing UO, you must act professionally when interacting with community partners and the public. The following behaviors are mandatory:

- Drive responsibly at all times (that means absolutely NO texting or talking on phone);
- Always go into the field with at least one other student (never go out alone in the field);
- During the camping expedition, always let Peg know where you are going and check in when you return;
- Teams in the field: dress appropriately for the weather and wear sturdy boots or hiking shoes (NO shorts or sandals!);
- Bring water, sunscreen and other essentials as necessary;
- Be mindful of field hazards such as moving water, poison oak, stinging insects and uneven terrain;
- Follow project-specific protocols;
- Trust your instincts. If you don't feel safe, stop field work and inform Peg as soon as possible.

A note on safety for CSA teams: *As part of your field work, you will hike off trail, carry lightweight equipment, walk along the edge of a lake, and possibly use landscaping tools such as shovels, hoes and clippers. You may encounter poisonous or stinging plants or insects. We will go over safety procedures in class but we cannot eliminate all risk. Please contribute to safe field work by following instructions, using equipment with care, watching your footing, and being careful around water.*

Use of ELP lab: The ELP is your dedicated space. Be considerate of your fellow ELP students and always keep the lab tidy. Please do not leave any food or drinks in the lab. Help us protect our lab and keep this room locked at ALL times and do not share the key code with anyone. Computer theft is an issue on campus, so lock the lab even if you are just going to the bathroom! Please also make sure the windows are shut and locked when you leave.

Computers and Electronic Files: The ELP computer lab has several desktops available for your use at any time as well as a printer. The printer is to be used for ELP related work only. You are responsible for backing up all your work!

D. COURSE REQUIREMENTS AND GRADING

Summary of Products (Assignments): Your grade will be based on the following components.

Element/Activity	Activity Type	Percent of Final Grade
1. Service Work, Participation and Leadership	Individual	35%
2. Research Report (and Information Sharing)	Individual	10%
3. Field Notebook	Individual	5%
4. Project Management Plan	Team	5%
5. Data Set(s) and Data Analysis	Team	5%
6. Website	Team	10%
7. Scientific Poster	Team	10%
8. Final Reports: a) USFS, b) DLT	Team	20%
9. Flash drive with all products	Team	n/a

Product Details

- ➔ See *Timelines & Products at a Glance (attached)* and assignment handouts posted on Canvas for details.
- ➔ All assignments are due 9:00 a.m. on Monday of the week listed.
- ➔ Follow your GE Project Manager's instructions for submitting assignments.
- ➔ Submit the following file formats: doc or docx for final reports, xls or xlsx for data files, ppt or pptx for scientific poster and final presentation, .jpg for action photos and photo points. Do not submit pdf files for either draft or final versions. However, you should post pdf files to your website.
- ➔ You must acknowledge your community partners and funder (Douglas C. Laidlaw Charitable Fund) in all public materials you develop, especially your website, reports, and poster. Example funding statement: "This project was made possible through the generous support of the Douglas C. Laidlaw Charitable Fund."

1. Service Work, Participation and Leadership

Participation and teamwork is the foundation of this class and without it, none of the other elements can be effectively accomplished. Your engaged participation is critical for your project to be successful! Your participation grade includes actively contributing to all classes, group meetings and field trips; active engagement in group planning, problem-solving and product creation; and coming to group meetings prepared to discuss your project, progress, and/or issues in a constructive, analytical manner. Your participation grade will also include your active engagement in data collection and group camping chores (e.g., cooking, cleaning, water filtration, etc.) during the 8-day field trip. As noted previously, due to the participatory nature of this class, participation in all class and team meetings is mandatory. We will use individual assessments and peer evaluations at the end of the term to help determine your success.

By signing up for this project, you have agreed to put in 4 credits (120 hours) worth of work for our community partners this term, divided approximately as follows: 8 hours summer reading and research, 60 hours participating in the data collection portion of the field trip, and 52 hours professional workshops, team meetings, data analysis and creating team products. Using the timesheet provided to you via Google Docs, maintain an accurate and updated timesheet. Please note that your service work grade is more than just putting in hours, you will also be evaluated on the **quality** of your work, your initiative in volunteering for tasks, and how well you take and apply the feedback you receive (from each other, community partners, Laura and Peg).

Your service work also includes a small component of publicity/outreach. Your task is to use social media (specifically, the ELP Facebook page) to create a buzz about your project. Highlight the accomplishments, exciting insights, breakthroughs, and stories gathered during your field work.

2. Research Report (and Informal Presentation)

This assignment is intended to give you background on a specific aspect of the project so everyone has an area of expertise. This assignment also includes sharing your findings with the team on the first or second day of the field trip.

3. Field Notebook.

The purpose of this assignment is to encourage you to take good notes regarding your project context and to allow you to create your own personal system of recording field notes. In addition, you will practice field observation skills and hypothesis generation through field exercises. You will be given 4.5" x 7" Rite in the Rain[®] notebook and an assignment handout with more information.

4. Project Management Plan

Every complex project needs to be managed in a thoughtful, organized manner. Your Project Management Plan is your blueprint for collaboratively working together to create high-quality products within established deadlines. The goals of this assignment are to 1) allow you to create a dynamic tool to guide you through your project, 2) support healthy team dynamics, and 3) introduce you to elements of project management. Your plan is intended to be a simple flexible document that you adjust as your project unfolds.

5. Data Set(s) and Data Analysis

Accurate, well-organized data are the lifeblood of any monitoring project. You will use Excel for data entry and data management. You will provide an electronic copy of your final data sets to your community partners.

6. Website

Every ELP team is responsible for developing a streamlined website that highlights your project activities, and each team member should contribute to the website design and development. Please take a look at the ELP site to get a feel for what past teams have done and what worked and what didn't work as well. Remember that your website will continue to reach people after you leave UO.

7. Scientific Poster

The poster will summarize your project and will be in a format suitable for presentation at a professional meeting. Your poster will be displayed in Columbia Hall and we encourage you to submit it to the annual Undergraduate Symposium (May 2018), <http://undergradsymposium.uoregon.edu/>.

8. Final Reports: a) USFS and b) DLT

You will create a concise final report for each of your community partners. They will be in the format of a scientific manuscript and should be suitable for submission to the Oregon Undergraduate Research Journal, <http://ourj.uoregon.edu/>. At a minimum, your scientific report will contain these sections: Abstract, Introduction, Methods, Results, Discussion, Management Recommendations, Acknowledgements, Literature Cited, and Tables/Figures.

9. Flash drive with all products

You will submit a final project flash drive with all products (including original data files in Excel format, spatial data layers, project management plan, action photos, poster, and reports). *Note: you should take several action photos that may be used in your presentations and/or written products, and possibly by Peg and/or your community partner.*

E. OTHER OPPORTUNITIES (no grade)

We encourage you to take advantage of opportunities to maximize your professional development. Although not part of the formal course requirements, there are additional opportunities for you to gain speaking or outreach experience or otherwise enhance your resume! For example, there may be opportunities to participate in a related community event. Peg or Laura will pass on ideas to you. Or feel free to let us know about your ideas!

a. End-of-year ELP presentation/celebration

You will be invited, but not required, to participate in the ELP 2017-18 Final Presentations and Celebration during June 2018. This will be another opportunity to gain public speaking skills, inform more people about your project and celebrate your accomplishments.

b. UO Undergraduate Symposium

We encourage you submit an abstract to show your poster at the UO Undergraduate Symposium. <http://undergradsymposium.uoregon.edu/>. Typically, the abstract deadline is in March and the symposium is in May.

c. Oregon Undergraduate Research Journal

If one of your reports is of high enough quality, I will invite you to revise it for submission to the Oregon Undergraduate Research Journal, <http://ourj.uoregon.edu/>. There manuscript deadline has varied over time.

- d. Other opportunities.** There may be other opportunities to get involved in your community partners' work, participate in a related community event or present your work at a professional meeting. ELP students have tabled, shown their products or otherwise participated in numerous local and regional festivals, workshops, artwalks, and conferences. In the past, some students have written short updates for their community partner(s)' website, newsletters or social media. Also, some ELP students have completed an Honor's Thesis related to their ELP project.

– Final Word –

We are incredibly excited about these projects, working with you,
and making a positive difference in our local community!

Thanks for all the enthusiasm and commitment you bring to the project!

F. Timeline and Products at a Glance: Destination Deschutes – Fall 2017

Timelines and Products at a Glance: Due Dates												
Products	Wk 0	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Finals
Research Report	Due 9/15											
Timesheet	Start	Update	Update	Update	Update	Update	Update	Update	Update	Update	Update	Final
Field Notebook	Start		Due									
Project Management Plan	Start		Due									Self/Peer Evals
Data Set and Analysis	Data Collect.	Data Entry	Start Analysis & Maps		Finish Analysis		Finish Maps					Final
Website			Start planning	Site Map Due	Draft 1 Due	Draft 2 Due	Goes live					Final
Scientific Poster				Start planning		Draft 1 Due		Draft 2 Due				Final
Reports					Start Planning	Outline Due	Methods Due	Intro & Study Area Due	Draft 1 Due	Draft 2 Due		Final
Flash drive w/all final materials												Due

Notes:

- ➔ All assignments are due 9:00 a.m. on Monday of the week listed.
- ➔ Finals Week: Final versions of all products due on Monday, December 4th at 9 a.m.

