Contents:
Class location & time
Instructors & teaching assistant
Texts & materials
Class syllabus
Grading
Peer evaluation form
Team assignments
Course fees
Field trip permission form
Student Questionnaire
Classroom Location & Time

ESRM/ENVIR/BES/TESC 462 Restoration Ecology Capstone 1

Location
Douglas Research Conservatory Classroom 103
UWBG - Center for Urban Horticulture, UW Seattle campus
Free parking available

Class - Fridays, 1-250PM
October 2nd – December 11th, no class day after Thanksgiving November 27th

Field trips - Friday, October 9th, 1-4PM, Saturday, October 10th and October 17th, 9AM-4PM
Instructors & Teaching Assistant

The instructors for 2009-10 are:

Kern Ewing  
kern@u.washington.edu

Warren Gold  
wgold@u.washington.edu

Jim Fridley  
fridley@u.washington.edu

John “Buck” Banks  
banksj@u.washington.edu

The teaching assistant (TA)/instructor for 2009-10 is:

Rodney Pond  
fishmael@u.washington.edu  
cell 206.226.6637  
office 206.897.1485

The TA is your primary point of contact for all aspects of the class; however feel free to contact the instructors anytime. We’re here to make this experience as rewarding as possible for all of our students.

Texts & Materials

Required text


We will be assigning readings in this text. We won’t be requesting it at the University Book Store. You’ll get it MUCH cheaper on Amazon, $27 + $4 shipping. UW Bothell students will have it available at their campus textbook store.

Recommended Texts

We will post handouts and lists of references for each topic covered in class on the class web page. However if you plan on being involved in ecological restoration in the coastal Pacific Northwest as a vocation and/or avocation we recommend you start investing in essential plant identification references. We recommend:


Pojar & MacKinnon (2004) is the throw-in-your backpack field guide and would be the most accessible and convenient one to use. It will cover 95% of the plants you are likely to encounter in the field. It does not however give you a technical key to positively identify plants. Kozloff (2005) is a very user-friendly reference for identifying plants. He minimizes the use of botanical terminology in his dichotomous keys. Hitchcock & Cronquist (1973) is the classic technical key for the flora of the Pacific Northwest. It's actually a five volume series but we recommend the condensed single volume. Be warned; you need to get familiar with botanical terminology and then learn the abbreviations used in this reference to use the key. Cooke (1997) is a handy field guide for wetland plants even though many wetland plants are covered in Pojar & MacKinnon. Many common coastal Pacific Northwest weeds are covered in all of the above references. Whitson (1996) gives you nice glossy photos that show what the seedling and the mature plant look like. The downside of Whitson is that it focuses on interior West rangeland weeds. Many of these are found in the Pacific Northwest as well. We will be providing references for western Washington noxious weeds to you when we cover the topic.

**Materials**

Since this is a field project class you need to be ready to be outdoors in all kinds of weather. When you're spending several hours outside doing grubby work in the cold rain here's what we recommend you have to make yourself more comfortable:

- **Waterproof work boots** – Gore tex hiking boots are comfortable and give you dry feet up to your ankles. For wetter, deeper conditions a good pair of rubber boots is your best friend. If you plan on being out in the field in wet, cold conditions frequently Muck Boot brand boots are HIGHLY recommended. Very comfortable, warm, and tough. Very much worth the $90+ investment.

- **Waterproof jacket & pants** – You needn’t ruin your expensive hiking gear with mud and thorns, go to a work clothing store like Work n’ More and get the rubber coveralls and jacket combo. They’re cheap, washable, and durable.

- **Hats** – Keep the sun out of your eyes with something wide-brimmed, keep your head warm with a cheap toque (stocking cap) when it’s cold and rainy
**Socks** – Make the investment in more expensive, warm, & comfortable wool hiking socks. Wool keeps you warm when it’s wet. Cotton does not.

**Work gloves** – Insulated rubber palm nylon cloth back gardening type gloves. They’re washable, inexpensive, and comfortable. Additionally, a pair of leather gloves will come in handy when removing blackberry and other thorny plants.

**Layers** – Thermoregulation is key to staying comfortable. Dress is layers. Invest in a base layer of good thermal underwear. Have a polar fleece type pullover in addition to your jacket. Again, wool is your friend in the Pacific Northwest.

We have limited tools that can be checked out for your projects; most clients will also have access to tools. If field work is something you will be doing beyond this class we recommend getting yourself:

**Pruners** – A pair of Felco hand pruners will serve you well for many years. Essential for weed removal and taking plant samples for plant identification. Don’t bother with the cheap ones. Get the Felco brand.

**Rite-in-the-rain® field notebooks** – A must-have to take notes out in the field and not lose your notes to mushy paper and bleeding ink.

**Mechanical pencils** – Rite-in-the-rain® is made for pencils. You don’t have to sharpen a mechanical pencil. Who remembers to bring a pencil sharpener with them into the field?

**Clipboard** – a waterproof one with a cover would be the best.

**Digital camera** – Essential for project documentation and outdoor photography

For in-class work it would be good to have:

**Graph paper** – For mapping your project site and doing design sketches to scale

**Protractor** – for drawing angles

**Calculator** – for calculating areas

**Flash drive** – saving all your hard work

**Notepads** – for taking notes, of course
Class Syllabus & Grading

The class syllabus and grading matrix can be found on the Autumn class webpage:

http://courses.washington.edu/ehuf462/462.htm

Your personal grade is dependant on the scores received for TEAM assignments and from peer evaluations. Therefore in order to ensure a satisfactory grade in this class you need to be fully engaged in all team assignments, work well with your team mates, and encourage your team mates to produce high quality work. The instructors/TA expect professional level work. This means:

- Cleanly formatted documents completed according to instructions
- Proper grammar and use of technical terminology
- College-level vocabulary, spelling and sentence construction
- Correct use of biological Latin and units of measurement (METRIC!)

Poor documents receive poor scores.

Peer Evaluation

Since grading is almost entirely based on assignments accomplished as a team we utilize peer evaluations completed by each team member to assess individual grades. Each team member will submit one at the end of the quarter that quantifies the contribution made by fellow team members and themselves. How individual grades are calculated using the peer evaluations is explained in the peer evaluation form below. Peer evaluations are confidential; no one except the TA and instructors see them. Yes, this means you can not see the evaluations or the peer evaluation scores individual team members gave you. You can ask for your individual average peer evaluation score from the whole team.
Rate each team member INCLUDING YOU on a scale from 0-12 according to their participation in accomplishing this quarter’s assignments.

0 = no participation
4 = minimal participation
6 = had to be reminded constantly of obligations
8 = inconsistent
10 = reliable & fully engaged
12 = above & beyond

Please use whole numbers, no fractions. As a team you are free to divide duties amongst yourselves in whatever manner agreeable to the team. Base your score on each team members’ participation, as agreed upon by the team.

How are individual grades calculated?

An average participation score will be calculated using the peer evaluations (PE) submitted by each team member for both the whole team and for each student. The standard deviation (SD) from calculating the team average PE score will be used to adjust final grades for the quarter. Students whose average PE score falls below the team average PE minus the SD will have the difference between their PE average and the team average PE minus the SD divided by 3 (this adjust the 12 pt PE scale to the 4 pt grade scale) deducted from their total grade for the quarter. Students who have an average PE that falls above the team average PE will have the difference between their average PE and the team average PE divided by three added to their final grade for the quarter. Students falling within the PE /PE minus SD range of will have no change in their grades.

For example: The team PE average is 9.1. The SD is 1.8. Student X received a PE average of 6.3. The team PE average minus the SD is 7.3. Student X will have 1/3=0.3 subtracted from their final grade for the quarter. Student Y received a PE average of 11.8. The team average is 10.8. Student Y will have 1/3=0.3 added to their final grade for the quarter. The instructors reserve the right to override peer evaluation scores and assign grades based on their judgment esp. when peer evaluations scores are clearly based on personality conflicts and not participation!!

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<th>TEAM MEMBERS</th>
<th>SCORE</th>
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Project Team Assignment

*Formation*

During the 3rd class of the autumn quarter you will be assigned to a project team. You will have the opportunity to rank the projects according to your preference using a spreadsheet linked to the class webpage. Team assignments will be sorted out by the TA & instructors. Each project team will be limited to no less than 4 members and no more than 7. The instructors and TA will be making the final team assignments based your stated preferences and experience as stated on the student questionnaire.

*Transportation & work/family commitments*

We fully acknowledge as working people ourselves with families that students also have challenges with transportation and work/family commitments that influence their class participation. However we expect that students have carefully considered their commitments and transportation issues PRIOR to signing up for a 33 week long project based course. We leave it to the teams to work out carpooling, coordinating work/family schedules, and other logistics on their own. All project work happens OUTSIDE of class time on the teams’ own mutually agreed upon schedules.

*Team Dynamics & Roles*

In our experience interpersonal conflicts are a major obstacle to successful projects in this class. The number one reason conflicts arise is over perceived level of effort/contribution. The number two reason is one team member takes on an overly aggressive leadership role. Peer evaluations are intended to be a way to inspire fair distribution of workload and equal level of effort. Keep in mind all the exemplary past capstone projects have been done by highly cooperative teams. This class offers a ‘real world’ experience and in the real world you end up working with people you may not relate to socially. We expect the students to interact with each other, the instructors, TA, clients, client representatives, and the public in a professional and respectful manner!

The instructors and the TA are available to mediate team conflicts however the instructors and TA reserve the right to intervene in team dynamics when conflicts are clearly not being resolved by the group.

We will be asking that team members take on specific roles in order to keep interactions with the clients and instructors/TA efficient. One person in each team will be required to take on the following responsibilities:

- **Client contact** – manages all communication between client and team
- **Task master** – keeps track of assignment deadlines & team meeting scheduling. Collects & reviews team & volunteer timesheets.
- **Document editor** – does final review of all documents before submission
- **Treasurer** – tracks budget, reviews and submits all reimbursement forms & material orders.
It is up to the team to divide all other team work. Team members can switch roles. If roles are changed then the instructor/TA and client must be notified IMMEDIATELY. We would prefer that you wait to switch roles until the end of the quarter.

Changing team assignments

Only under extenuating circumstances will students be allowed to switch teams after they have been assigned. The instructors and TA will evaluate requests to switch teams on a case by case basis. If you feel you MUST change your team assignment, please contact us ASAP, not weeks after you began to have misgivings.

Confidentiality

All conversations with the instructors and TA regarding team dynamics, changing teams, and grades are strictly confidential.

Course Fees

The course fee is $40/student/quarter for this class. This fee covers van rentals for field trips and can be used by the students for certain project related expenses. A matrix of allowable expenses & reimburseables with limits will be given out first week of class.

You need to get PRIOR APPROVAL from your TA before making ANY purchase. Always get and save receipts. Write your name, student #, and phone number on each receipt. It is FAR EASIER to have the University pay directly for materials from the course fee budget than to reimburse a student. Your TA can assist you in submitting a purchase order for materials. YOU MAY NOT PURCHASE THE FOLLOWING USING YOUR COURSE FEES:

- Food & refreshments for volunteers and/or yourselves
- Gas
- Classroom supplies
- Parking tickets, towing, or car repairs
- Hired help
- Tools

ALWAYS check with your TA prior to making a purchase, this ensures that the purchase you make is legit and will be covered by your course fees.

**Special note regarding UW motor pool rentals**

If you wish to rent a UW motor pool vehicle contact your TA who will submit your request. This needs to be done as far in advance as possible. Students are responsible for picking up and dropping off the motor pool vehicles they rent. PLEASE BE AWARE THAT THE GAS CREDIT CARDS FOR MOTORPOOL VEHICLES ARE FOR GAS ONLY!!!! YOU MAY NOT PURCHASE FOOD, DRINKS, OR ANY OTHER ITEMS OR SERVICES WITH THEM!!!
Section 1 (To be completed by field trip leader)
Class: ESRM/ENVR/BES/TESC 462 Restoration Capstone
Field trip leader: Kern Ewing   Telephone: 543-4426
Address: Merrill 031, University of Washington Botanic Gardens, Center for Urban Horticulture

Field trip locations and date(s):

Oct 9th – Yesler Creek, Madrona Woods & Island Grove, Seattle

Oct 10th – Pierce College, Lakewood; Cotton Hill Park, Kirkland; Earth Sanctuary, Whidbey Island

Oct 17th – Union Bay Natural Area, Seattle

Equipment/supplies to be provided by participant:

• Walking shoes/boots, lunch, beverages, rain jacket

Equipment/supplies to be provided by field trip leader:

• Handouts & transportation

Immunizations required: none

Physical activities to be undertaken include:

• Walking on trails and in vegetation

Risks inherent in these field trips include bodily injury due to:

• walking on uneven ground
Section 2 (To be completed by adult field trip participants)

I acknowledge that there are certain risks inherent in field trips, including but not limited to those indicated in Section 1. I acknowledge that all risks cannot be prevented and I assume those risks beyond the control of the University staff. I represent that I am able, with or without accommodation, to participate in this field trip, am able to use the equipment and/or supplies described above, and have obtained the required immunizations. I also agree to assume all risks of personal trips or activities undertaken at my own initiative during travel to and from or during the course of the field trip. Should I require emergency medical treatment as a result of accident or illness arising during the field trip, I consent to such treatment. I acknowledge that the University of Washington does not provide health and accident insurance for field trip participants and I agree to be financially responsible for any medical bills incurred as a result of emergency medical treatment. I acknowledge that I have been given the option to purchase field trip insurance through the University. I will notify the trip leader in writing if I have medical conditions about which emergency medical personnel should be informed.

Signature

Date

Section 3 (General information)

☞ To request disability accommodations for this field trip, please contact Disabled Student Services at least 10 days in advance of the trip by calling (206) 543-8924 (voice): (206) 543-8925 (TTY): or (206) 616-8379 (FAX).

☞ To purchase optional field trip insurance, please call (206) 543-3419.

☞ Immunizations may be obtained through the Hall Health Primary Care center (206) 685-1060 or your primary care physician.

NOTICE REGARDING USE OF UNIVERSITY VEHICLES

Vehicles may be used for official purposes only; they may not be used for transportation to/from personal residences or on personal errands. Operators must observe commonly accepted rules of courtesy toward pedestrians and other drivers and use and park the vehicle in a manner that will not reflect unfavorably on the University. Misuse of University property (such as malicious damage to a vehicle) or prohibited acts while occupying a vehicle (such as possession or use of alcohol, controlled substances, firearms, explosives, etc) may be subject to discipline under the Student Code.
Student Information Sheet

Name:

Cell phone:

Home phone

Student email:

Personal e-mail:

Major:

UW Campus:

Do you have a car? Are you willing to be a carpool driver for your project team?

I. GENERAL INFORMATION FOR THIS COURSE

1. Why did you sign up for the capstone?

2. Describe any particular expectations / hopes for what will be addressed in the capstone sequence.

II. PROFESSIONAL / PERSONAL INFORMATION

1. Present Career and/or Future Plans

2. Special Interests in Restoration
3. Employment Experience

4. Other Experiences relevant to Restoration (volunteer work, etc)

### III. ACADEMIC BACKGROUND
(only list courses taken since high school in the categories below)

**DEGREE(S) EARNED SINCE HIGH SCHOOL (AA, BA, BS, etc)**

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<th>Year</th>
<th>School</th>
<th>Subject</th>
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**RESTORATION / ECOLOGY / ENVIRONMENTAL SCIENCE COURSES**

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<th>Course Title</th>
<th>School</th>
<th>Year</th>
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### BIOLOGY COURSES

<table>
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<tr>
<th>Course Title</th>
<th>School</th>
<th>Year</th>
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### OTHER RELEVANT COURSES

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<th>Course Title</th>
<th>School</th>
<th>Year</th>
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### IV. CURRENT ENROLLMENT

**OTHER COURSES YOU ARE TAKING THIS QUARTER:**

<table>
<thead>
<tr>
<th>Course Title &amp; Number</th>
<th>Credits/ School</th>
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