



## Course Focus

Research and monitoring methods for ecological science

### Knowledge Goals

1. Learn some selected methods
  - Vegetation analysis
  - Invertebrate sampling
  - Microenvironmental assessment
  - Soil analysis
  - Analysis of herbivory
2. Learn some associated ecological principles
3. Theory – practice connections

## The Flow of Topics

<b>Mar. 30 – Apr. 1</b> Ecological concepts	<b>May 4 - 13</b> Soil analysis
<b>Apr. 1 - 20</b> Wetlands & vegetation analysis	<b>May 13 - 25</b> Invertebrate sampling
<b>Apr. 15 - 27</b> Forest vegetation analysis	<b>May 27 – June 3</b> Herbivory
<b>Apr. 27 - 29</b> Microclimate assessment	

## Skills Goals

1. Collect data in a careful manner
2. Analyze & interpret data thoughtfully relative to limitations and scientific theory
3. Thinking critically
4. Expressing understanding
  - Presenting arguments clearly & well-supported
5. Engaging in thoughtful & respectful discourse / working together

## Course Resources

**1. Instructor:** Warren Gold

Office: UW1 – 140      Phone, email & web site on syllabus

Office Hours:      Mon & Wed 11:00 – 12:30  
and by appointment

## Course Resources

**2. Readings:**

- A. No textbook
- B. Electronic reserve readings
  - Reading list at end of syllabus
  - Read article BEFORE class on the date listed
- C. Lab handouts
  - You MUST read and study BEFORE class
  - Bring a copy to class (instructions, data forms)
  - Get these off the web site (I will not bring)

## Course Resources

### 3. Lecture notes

Full Power Point presentation notes available on course web site

## Course Resources

### 4. Course Web Site

Handouts, readings, resources, announcements

<http://faculty.washington.edu/wgold/bes316/bes316.htm>

**It is YOUR responsibility to print out handouts BEFORE class and bring them from now on!**

## Course Resources

### 5. UW Bothell Writing Center

Assistance with clarity, grammar, expression, research, reading

### 6. UW Bothell Quantitative Skills Center

Assistance with data handling, analysis, and presentation

### 7. Campus Library

Research assistance (reference librarians: e.g., Mr. Rob Estes, science reference librarian)

## Course Meetings

### Schedule

### Official Location

Tuesday 11:00 – 1:05

CC1-331

Thursday 8:45 – 1:05

CC1-331

Class starts PROMPTLY at 11:00

Often we will be outside much of the time (at least 11 class meetings)

## Course Meetings

This table is on syllabus

BES 316 Outdoor Activity Schedule		
Date	Day	Outdoor Activities
30-Mar	Tue	Outside in campus wetlands for 30 min
1-Apr	Thur	Outside in campus wetlands for 2 – 3 hours
8-Apr	Thur	Outside in campus wetlands for 3 hours
15-Apr	Thur	Outside in nearby forest for 2 hours
22-Apr	Thur	Outside at St Edward Park for 3 hours
29-Apr	Thur	Outside at St Edward Park for 3 hours
4-May	Tue	Possibly outside on campus for 30 min
6-May	Thur	Outside at St Edward Park for 2.5 hours
18-May	Tue	Outside in campus wetlands for 2 hours
20-May	Thur	Outside at off campus stream site for 2 hours
27-May	Thur	Outside in campus wetlands for up to 3 hours
1-Jun	Tue	Possible group work outside
3-Jun	Thur	Possible group work outside

### Main outdoor locations

Campus wetlands  
St Edward State Park

We will travel off campus in a UW van

## Outdoor Activities

Limited walking distances

Off trail travel common (use older clothing)

Required items:

- Rubber boots (for campus wetland days)
- Hiking boots (for forest sampling days)
- Long pants & long-sleeve shirt
- Rain jacket (with hood or hat) & rain pants
- Gloves (for warmth and vegetation) and a warm hat
- Warm jacket
- Sunscreen & sunglasses
- Field notebook & pen / pencil
- Cell phone (recommended)

## Outdoor Activities

Safety is a priority – read on the syllabus  
Read and sign the field trip waiver form (today)  
Read and sign UW Bothell lab conduct form (Apr 6)  
Notify me of special medical considerations this week!

## Class Periods

Our class periods are often very complex (multiple different types of activities)

Overview of detailed daily schedule is available on course web site as the BES 316 Activities Planner:

<http://faculty.washington.edu/wgold/bes316/bes316.htm>

Study activity plan for the day and lab handout so that you come prepared

Unlike many classes where you can just show up – if you do not come to class prepared you will not succeed in your assignments

## Assignments & Assessment

### There are no exams

**You will be graded on products from 7 different projects:**

- Ecological concepts (today)
- Sampling wetland vegetation communities
- Sampling forest vegetation communities
- Assessing microenvironments
- Soil analysis
- Invertebrate sampling
- Herbivory analysis

**Most projects will be done in small groups**

## Assignments & Assessment

**You will be graded on:**

- Three oral presentations
- One poster presentation
- Five written reports

## Assignments & Assessment

### ORAL REPORTS

The oral reports are usually 10 – 20 minutes in length  
Given by small group (or individual – student choice for 2 of 3)  
Can be graded individually or as a group (for 2 of 3; first one is group only)

- *Grading as a group is default mode*
- *You can be graded individually only if you notify me in advance*

Graded on both content and presentation

## Assignments & Assessment

### WRITTEN REPORTS

The written reports vary in length (often about 3-10 pages)  
Focused on reporting study results as in a "Results and Discussion" section (though sometimes I will ask for a "Results" section)  
Herbivory project goes beyond "Results" & "Discussion"  
Most are individual products (4), though the first may be written as a team (and thus graded as a team) – your choice

## Assignments & Assessment

### POSTER PRESENTATION

For Herbivory project on June 8

Produced by small group

Includes brief presentations & discussion

Graded on both content and presentation

## Assignments & Assessment

### COLLABORATION

Individual reports can use team-gathered raw data **BUT MUST NOT**

#### **COLLABORATE IN:**

- Data analysis (calculations)
- Presentation illustrations
- Conclusions & writing

## Assignments & Assessment

Assignment details are provided in each lab handout

The schedule is packed – keep abreast of due dates on table in syllabus

This is not a course where little happens for a lot of time and then a frenzy hits; rather it is busy continuously

If you fall behind it will be difficult to catch up!

## Assignments & Assessment

Grades are based upon **quality** and **timeliness** of work submitted

*See syllabus & me for more information*

**Re-grading policy on syllabus (in-writing within 1 week)**

**Late assignment policy on syllabus**

## Laptops / Electronic Devices

These are fine so long as they do not become distractions

Use at your own risk in the field and lab