ESRM 304

Environmental and Resource Assessment
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One of the interdisciplinary courses comprising the core of the **Environmental Science and Resource Management (ESRM)** major in the School of Environmental & Forest Sciences (SEFS)

- 200 – Society and Sustainable Environments
- 201 – Sustaining PNW Ecosystems
- 300 – Principles of Sustainability
- **304** – Environmental & Resource Assessment
Environmental Science and Resource Management

All the core courses support the ESRM major in the SEFS and its transcripted *options*

- Landscape Ecology & Conservation
- Restoration Ecology & Environmental Horticulture
- Sustainable Forest Management
- Wildlife Conservation
Course Goals

- introduce the **methods** of how **scientific investigation** is done,
- demonstrate how scientists from different disciplines **use** basic **assessment methods** in their specialty, and
- appreciate how these methods are **integrated** in the context of larger **environmental & resource surveys** and interdisciplinary problem solving.
Hands-on Field Experience

- Concepts and Skills taught will be focused and presented in weekly modules.

- Most weekly modules will be comprised of both class and either a laboratory period or a field trip (4 hr). Field sites provide suitable resources for demonstration & application of assessment methods.
Hands-on Field Experience

Field trips are REQUIRED

- Gather in C-10 Parking Lot (btwn BLD & WFS)
- Be on time: Depart at 12:30PM sharp!
- Clothe yourselves appropriately!
  - Sturdy footwear: closed-toe
  - Long pants / full rain suit

Slim chance for make-up Field trip

- Lowest score dropped

“I hear – I forget; I see – I remember; I do – I understand”
Weekly Module Topics

- **Module 1**: Scientific Method, Sampling
- **Module 2**: Soils and Microclimate
- **Module 3**: Stream Ecology / Hydrology
- **Module 4**: Ground Cover / Lower Canopy
- **Module 5**: Social Environment
- **Module 6**: Tree cover / Upper canopy
- **Module 7**: Remote Sensing & GIS
- **Module 8**: Wildlife population sampling
- **Module 9**: Surveying & Navigation

**Integration**: Assessment Strategy Puzzles
Module Topics and Instructors

- Sci. Method in Nat. Resources: E Turnblom
- Soils and Microclimate: D Vogt, D Zabowski
- Stream Ecology / Hydrology: S Bolton
- Lower Canopy Sampling: E Turnblom
- Social Environment: S Asah
- Tree cover / Upper canopy: E Turnblom
- Remote Sensing & GIS: LM Moskal
- Wildlife population sampling: A Wirsing
- Surveying & Navigation: E Turnblom
- Teaching Assistance: L Li
1) **Individual Instructor Grades.** The percentage grade for each instructional module will be averaged to develop the score for this component. Represents **80% of grade**.

2) **Final Exam.** The exam date is Wednesday Dec 10\textsuperscript{th} from 8:30-10:20AM in this classroom (WFS 201). The final represents **20% of the grade**.
ESRM 304 Resource Materials

- **web site:**
  courses.washington.edu/esrm304a
  – class PPTs & other materials placed here

- **Field site package**
  Distributed in class, as needed

- **Readings and handouts**
  On website and in class, periodically