



Sustainable Forest Management Option

in the Environmental Science and Resource Management major

<http://www.cfr.washington.edu/Acad/undergrad/esrm/index.htm>

Students acquire the knowledge and skills to measure and assess natural resources in order to understand the ecology of forest systems; manage for environmental services; treat forest fuels; achieve sustainable harvest; market and sell forest products; and understand how social, economic, and ecologic forces impact the management of forests and their resources.

Required Option Courses (34+ credits)

(Fulfills most ESRM major restricted electives)

- ESRM 323 (5) Silviculture
- ESRM 368 (4) Natural Resource Measurements
- ESRM 430 (3) Aerial Photos/Remote Sensing Natural Resources
- ESRM 461 (5) Forest Management and Economics
- ESRM 470 (5) Natural Resource Policy and Planning

Choose one from each topic area:

Forest Ecology and Biology:

- ESRM 328 (4) Forestry-Fishery Interactions
- ESRM 350 (5) Wildlife Biology and Conservation
- ESRM 409 (5) Soil Ecology
- ESRM 410 (5) Forest Soils and Site Productivity
- ESRM 414 (5) Forest Soil Fertility and Chemistry
- ESRM 425 (5) Ecosystem Management
- *ESRM 426 (4) Wildland Hydrology
- ESRM 428 (5) Principles of Silviculture/Applications

Forest Resource Management:

- ESRM 315 (5) Old Growth and Forest Management
- ESRM 381 (3) Management of Wildland Recreation and Amenities
- ESRM 420 (5) Wildland Fire Management
- ESRM 425 (5) Ecosystem Management
- ESRM 435 (3) Forest Entomology
- ESRM 444 (5) Forest Ecosystem Protection: Insects and Diseases
- *ESRM 468 (5) Forest Operations
- ESRM 490b (3) Quantitative Decision Techniques in Natural Resources

Forest Resource Policy, Economics, and Admin.:

- ESRM 320 (5) Marketing and Human Resources
- ESRM 321 (5) Finance and Accounting
- *ESRM 400 (3) Natural Resource Conflict Mgmt
- ESRM 403 (4) Forest and Economic Development
- ESRM 427 (3) Integrated Mgmt - Forest Landscapes
- ESRM 465 (3) Economics of Conservation

*Strongly Recommended

Recommended Capstone Experience

To fulfill the 10 credit major capstone requirement, students are strongly encouraged to select the Proposal (ESRM 494), then either the Senior Thesis (ESRM 496) or Senior Project (ESRM 495). The award-winning UW-REN Restoration Ecology Capstone (ESRM 462-464) is also available.

Capstone projects can be designed to provide experience in developing a forest management plan to meet forest-land parcel objectives. Requirements include a project proposal, data collection or project implementation, analysis of data/project, final written report of findings/project, and an oral presentation.

Career Opportunities and Graduate Study

Career possibilities include positions responsible for forest stand examination, stream sampling, amphibian and/or bird surveys as they relate to Habitat Conservation Plans, silviculture prescription writing, riparian management zone (stream buffer) layout, timber "cruising," timber sale layout, and harvest setting layout.

Students may choose to apply to the Master of Forest Resources (MFR) degree, accredited by the Society of American Foresters, following their ESRM undergraduate major. The MFR is a non-thesis professional master's degree that can be completed in just one additional year if the Sustainable Forest Management option is completed. This advanced degree can provide additional experience for those desiring more in-depth knowledge of the field and for those inclined toward leadership roles in their careers.

CFR Faculty: Eric Turnblom (lead), Gordon Bradley, David Briggs, Ivan Eastin, Greg Ettl, David Ford, Jerry Franklin, Frank Greulich, Rob Harrison, Monika Moskal, Dorothy Paun, John Perez-Garcia, Clare Ryan, Peter Schiess, Sandor Toth, Darlene Zabowski