

WWU Courses for the River Studies & Leadership Certificate (RSLC)

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Website: https://huxley.wwu.edu/river_studies_and_leadership_certificate

Students pursuing the River Management Society's River Studies & Leadership Certificate through Huxley on the Peninsula's program can select from the approved courses listed in Table 1.

Table 1: Approved RSLC Courses at WWU's Huxley on the Peninsulas*

Core Courses (1 course in EACH area)	
GIS	ENVS 320 Introduction to Geographic Information Science (4 cr)
River Science	ESCI 428 Stream Ecology (5 cr)
River Policy (select 1)	ENVS 426 Water Resources (4 cr)
	ESCI 499s Integration of Environmental Science and Policy (2 cr)
Swift Water Rescue	Earn certification on own (see options below)
Emphasis Coursework (2 courses in ONE area)	
River Science	ESCI 410 Habitat and Ecology of Pacific Salmon and Trout (3 cr)
	ESCI 470 Ecological Restoration
Policy & Management	ENVS 355 Environmental Law and Policy
	ENVS 426 Water Resources (4 cr)**
	ENVS 463 Native American Planning and Natural Resource Policy (3 cr)
	ESCI 499 Integration of Environmental Science and Policy (2 cr) (if not counted above)**

*Students are required to meet course pre-requisites

** Can be counted here if not taken for the River Policy Core Course

Additional requirements (see website for details)

- Professional Experience (equivalent of 2 credits)
- Oral/Written Presentation

To enroll, complete the application form (available on the WWU RSLC website).

Student Benefits:

- One-year membership to RMS
- Subscription to RMS Journal
- Access to National/Regional events
- Access to RMS Listserve

The catalog description of the approved WWU Huxley on the Peninsulas courses for the RSLC are provided below.

CORE COURSES

GIS

ENVS 320 Introduction to Geographic Information Science (4 cr)

An introduction to Geographic Information Science concepts and Geographic Information Systems (GIS) technology. Lectures will focus on the nature of spatial data, spatial data sources, and the input, manipulation, analysis, and display of spatial data. Practical experience in GIS applications through lab assignments.

River Science

ESCI 328 Introduction to Ecosystem Management (5)

Identification of non-market ecosystem values required of ecosystem management. Site specific inventory and assessment of resource values, methods of collecting, storing, displaying and interpretation of resource data. The use of GIS as a resource management tool. Laboratory time will focus on identifying resource values of parks, natural preserves and other areas with high resource values.

River Policy (select 1)

ENVS 426 Water Resources (4 cr)

The role of water in the environment; the nature of water use and resulting problems; processes which underlie comprehensive water resource planning and basin management; data analysis and presentation.

ESCI 496 Integration of Environmental Science and Policy (3 cr)

This course will investigate the integration of science and policy within EPA and other Federal agencies such as US Forest Service, US Geological Survey, NOAA and NASA. The course will be an introduction to the process of science, a review of Kuhn, Popper and Oreskes, and the interaction between observational and experimental data, theory and simulation. Policy formulation under several federal level programs will be introduced. Detailed examination of several case studies will be presented by the students. During the quarter, local policy makers-shapers will also be invited to discuss their experiences in melding science and policy.

Swift water Rescue

Swift water training through an accepted training program list below.

Currently the WWU Outdoor Center is offering a full day training on Thursday, April 11, 2019 in Bellingham. The cost is \$90. Please let Dr. Laninga know if you are planning to attend.

Dr. Laninga is also working with the WWU Outdoor Center to schedule a training in a location closer to Peninsula students. Stay tuned ...

Wave Trek Swiftwater Rescue course:
<http://www.wavetrekrescue.com/node/59>

Wet Planet Whitewater River Rescue Certification course:
<https://wetplanetwhitewater.com/package/rrc-river-rescue-certification/>

Outdoor Adventures Swiftwater Rescue course:
<https://www.outdooradventurecenter.com/adventure/swiftwater-rescue-technician-srt1/>

EMPHASIS COURSEWORK – Select one emphasis and take two courses

1) River Science (select 2)

ESCI 429 Stream Ecology (5 cr)

Ecology and analysis of streams with emphasis on physical and chemical properties in relation to biotic communities. Processing of organic matter by stream invertebrates and fish communities. Perturbation by high organic loading or chemical pollutants and recovery processes. Reservoirs as hybrid systems. Field and laboratory exercises in sampling and analysis of stream ecosystems.

ESCI 470 Ecological Restoration (5 cr)

Investigates the theory and practice of ecological restoration, including methods for evaluating the success of restoration projects. Incorporates physical and ecological as well as economic and cultural considerations. Students work in groups on actual restoration projects.

2) River-based Policy & Management (select 2)

ENVS 355 Environmental Law and Policy (4 cr)

Environmental law and policy provide tools to prevent and address environmental harm. Explore, analyze, and critique policy tools and processes relating to air and water quality, hazardous wastes, and species protection.

ENVS 426 Water Resources (4 cr)

The role of water in the environment; the nature of water use and resulting problems; processes which underlie comprehensive water resource planning and basin management; data analysis and presentation.

ENVS 463 Native American Planning and Natural Resource Policy (3 cr)

Survey of political and jurisdictional considerations, treaty rights, and social and environmental conditions facing tribal communities in their pursuit of self-governance and sustainability. Historic federal Indian policy, court rulings and the consideration of off-reservation treaty rights in regional planning. Approaches to intergovernmental cooperation for sustainable natural resources management.

ESCI 499 Integration of Environmental Science and Policy (2 cr)

This course will investigate the integration of science and policy within EPA and other Federal agencies such as US Forest Service, US Geological Survey, NOAA and NASA. The course will be an introduction to the process of science, a review of Kuhn, Popper and Oreskes, and the interaction between observational and experimental data, theory and simulation. Policy formulation under several federal level programs will be introduced. Detailed examination of several case studies will be presented by the students. During the quarter, local policy makers-shapers will also be invited to discuss their experiences in melding science and policy.