

**Course Objectives/Course Outline
Spokane Community College**

Course Title: Fisheries Techniques

Prefix and Course Number: ENVS 226

Course Learning Outcomes:

By the end of this course, a student should be able to:

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Course Outline:

- I. Natural history of important fishes
 - A. Practical experience at sampling and ID of fishes
- II. Stream ecology
 - A. Geomorphology, typing, and reach identification
 1. Practical field experience at reach typing
 - B. Sampling Large woody debris in streams
 1. Practical field experience at LWD assessment
 - C. Sampling substrates and sediments
 1. Practical field experience at sediment sampling
- III. Aquatic Insects
 - A. Field identification of lotic macroinvertebrates
 - B. Sampling methods for lotic macroinvertebrates
 1. Practical field experience at macroinvertebrate sampling
- IV. Aquatic Pests
 - A. Field identification of aquatic pests
 1. Practical field experience at sampling for aquatic pests
- V. Riparian management
 - A. Assessment of forest management effects on fish and fisheries
 1. Practical field experience with riparian condition assessment
 2. Practical field experience with water runoff management
 - B. Assessment of the effects of agriculture and urban areas on riparian condition and function
- VI. Lacustrine fishes, habitats, and management issues
 - A. Field assessment techniques of lake fisheries
 - B. Assessment of landscape and land use effects on lake fisheries
 1. Practical field experience with lake assessment
- VII. Population management and exploitation
 - A. Population assessment methods and techniques
 1. Practical field experience with fish sampling methods
- VIII. Hatcheries and propagation
 - A. Hatchery procedures and management techniques
 1. Practical field experience with hatchery management
- IX. Watershed management and land use assessment
 - A. Field methodologies related to watershed analysis and water quality monitoring