

Course Objectives/Course Outline
Spokane Community College

Course Title: Introduction to Geographic Information Systems for the Natural Resources

Prefix and Course Number: ENVS 220

Course Learning Outcomes:

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

- Display and explore relationships among spatial data using ESRI's suite of ArcGIS software
- Effectively manage multiple file types
- Evaluate the quality and relevance of spatial data for specific objectives
- Access, retrieve, import and effectively display spatial data from a variety of sources
- Apply cartographic concepts to the development of reference and thematic maps
- Apply basic geoprocessing techniques to effectively address environmental science scenarios

Course Outline:

- I. Cartographic Concepts
- II. Introduction to ArcGIS software
 - A. Reference maps
 1. Interacting with maps
 2. Essential map elements
 3. Principles of map design
 - B. Spatial Data
 1. Types
 2. Structure
 3. Management
 4. Sources
 - C. Thematic maps
 1. Displaying spatial data
 2. Creating and editing spatial data
 3. Gathering information from features
 4. Analyzing feature relationships
 5. Basic geoprocessing tools for vector data
- III. Application of ArcGIS software to environmental science scenarios