This class studies how landscapes function to produce ecosystem services. It builds knowledge and skills in assessing these functions to prescribe actions to maintain, enhance or minimize damage to these services.

Only majors in landscape architecture, and architecture if space is available, may enroll in this offering of the class. A prior basic physical geography course, or other basic natural science class is recommended. Lab assignments will entail drawing and interpreting maps. All readings will be on-line with optional textbooks.

The analysis of landscapes is important in land use planning, geography, architecture, landscape architecture, real estate development, environmental advocacy, and land management. It integrates physical, biological, social, legal, cultural, aesthetic and economic considerations in sustaining many services from landscapes.

The class aims to familiarize students with basic landscape sciences and information to understand how places came to be as they are, how they function, and how they ought best evolve. The class will introduce the collection, understanding, and evaluation of information about geology, geomorphology, soils, microclimate, ecology, hydrology, geology, aesthetics, zoning, land use, and decision synthesis.

**Learning Objectives that will be the Basis of Grading:**
- accurately read and produce maps locating natural resource information in relation to topography;
- understand and correctly interpret mapped and other data that informs land use and design decisions;
- apply geologic and hydrologic information to understanding floods, water quality and water supplies;
- apply micro-climate attributes to landscape places as they effect energy consumption and production;
- know how soil attributes effect land decisions and why different soils occur in types of land areas;
- understand how plant communities evolve and can be identified effecting habitat & biodiversity goals;
- estimate how landscape places and changes can affect the professional assessment of scenic impacts;
- analyze land use and regulations as they effect what can be legally done in different places and how;
- assess how anthropogenic landscape changes can better optimally produce watershed health.

**Graded Tasks:**
- Each student will complete seven lab assignments that study sites in western Oregon.
- Each student will take on-line quizzes covering required readings and in-class content.
- Each student will write a final syntheses lab report derived from all their preceding lab assignments.
- Each student will report on their lab work to the class several times during the term.
- Students will analytically synthesize their lab maps in teams.
- Students will work in teams to plan site designs derived from their lab analyses.
- There will be no final exam.