



Contact Time	3 x 1 hour lecture/week ; 1 x 3 hour lab/week
Format	Lectures and lab periods
Class Assessment	Lab assignments 50% Lecture tests: 30% Final exam 20%

**COURSE OVERVIEW**

This course introduces the major concepts studied in physical geography and natural resource processes and interrelationships between the atmosphere, hydrosphere, biosphere, and lithosphere at "local to global" scales. Surface processes are investigated to serve as a basis for understanding the nature and distribution of natural resources.

**LEARNING OUTCOMES**

To complete this course, students will demonstrate:

- x Knowledge of key concepts and laws governing physical geography / Earth system science (e.g., electromagnetic radiation, climatology and meteorology, geomorphology, hydrology, geography of soils, biogeography)
- x Understanding of the processes giving rise to patterns and phenomena observed in the Earth system at local, regional, and global scales
- x Use and implementation of basic tools and techniques used by geographers to study spatial and temporal patterns (maps, remote sensing, GIS, statistics).
- x Appreciation of the way humans are linked to as well as impact the Earth system (e.g., climate change, biodiversity, pollution, carbon and nutrient cycling).

**COURSE TOPICS**

Introduction to physical geography; earth-sun geometry and seasons; global energy system and temperature patterns; atmospheric pressure, moisture, and weather systems; global climates and climate change; plant geography; Earth's structure, geologic time, the rock cycle; tectonic processes and landforms; weathering and mass movement; groundwater and karst systems; fluvial systems and landforms; glacial and periglacial processes and landforms; arid landscapes and aeolian processes; coastal processes and landforms; distribution and character of soils; relevance of physical geography to environmental issues.