



GEOG 1000

Division: Natural Science and Mathematics

Department: Geology

Course: GEOG 1000

Title: Physical Geography

Catalog Description:

This course is an introduction to geographic analysis of the processes that operate in the earth's atmosphere (such as weather, winds, ocean currents, climate, and vegetation) and on the earth's surface (such as rivers, glaciers, wind, waves). This course is designed for non-majors and majors. A field trip may be required.

General Education Requirements: Physical Science

Semesters Offered: Fall, Spring

Credit/Time Requirement: Credit: 3; Lecture: 3; Lab: 0

Clock/Hour Requirements: 0

Offered for Non-Credit: No

Prerequisites: Math 1010 competency

Corequisites: GEOG 1005

Justification:

This course is a general education (Physical Science) class at Snow College and transfers as a lower division course to other four-year schools. It transfers within the Utah system of higher education as GEOG 1000. (However, most other schools do not require a lab.) This course also fulfills the Physical Geography requirements for Geography majors and other related fields such as Natural Resource majors.

Student Learning Outcomes:

Upon successful completion of this course, the student should be able to:

- describe the earth's relationship to the sun and its effects on the earth
- understand the atmosphere:
 - the physics of gases
 - circulation of the atmosphere
 - atmospheric moisture and precipitation
 - air masses
 - weather patterns and storms
- understand the factors that control climate
- explain and locate the different climates of the world
- describe how vegetation adapts to climate
- list the different types of soils worldwide and the factors that control soil type
- understand the relationship between climate, vegetation, soil and people
- understand plate tectonics

- describe the three types of rocks that make up the earth's crust
- understand the many processes that create landforms:
 - igneous activity
 - faulting
 - folding
 - mass wasting
 - fluvial processes
 - glacial processes
 - wind, waves, groundwater
- identify landforms created by the above processes
- understand the relationship between humans and the physical environment.

Content:

This course includes:

- Physical Geography: An Overview
- Earth/Sun Relationships, Seasons, Time Zones, Etc.
- The Composition and Physics of the Atmosphere
- Atmospheric Heat Budget
- Atmospheric Moisture, Humidity, Clouds, Fog, Dew
- General Atmospheric Circulation
- Air Masses and Fronts
- Storms and Precipitation
- Climates
- Soil
- Vegetation and Climate
- The earth's Crust, Rocks and the Rock Cycle
- Plate Tectonics
- Crustal Deformation and Related Landforms
- Igneous Activity and Related Landforms
- Weathering and Mass Wasting
- Fluvial Processes and Landforms
- Glacial Processes and Landforms
- Arid Landscapes and Wind
- Coastal landforms and Waves, Tides
- Environmental Topics

General Education Outcomes:

1) Read effectively, constructively, and critically.

Students will read journal articles and web sites related to topics and issues covered in class such as global warming, ozone depletion, el ni o, etc. Students will be asked to look for bias in readings during class discussions. Students will be asked to summarize readings on quizzes and exams or in class discussions. Students are also asked to read web sites and journal articles critically for scientific merit.

7) Apply scientific reasoning to a variety of contexts.

Students are taught the basics of atmospheric science and surface processes on the earth. Students are asked on quizzes, labs and tests to apply this knowledge to understand phenomena such as weather and landforms. Students are also asked to read web sites and journal articles critically for scientific merit. Feedback is given on student s ability to apply scientific reasoning to evaluating environmental issues such as global warming.

Key Performance Indicators:

- 8-10 quizzes (multiple choice and short answer) together with 5-10 homework assignments (applications of concepts or readings): 20% of the final grade
- 2-3 examinations (multiple choice and short answer): 45% of the final grade
- lecture final (comprehensive, conceptual, multiple choice and short answer): 35% of final grade

Representative Text and/or Supplies:

- Alan Strahler and Arthur Strahler, *Introducing Physical Geography*, current edition.

Optimum Class Size: 24

Maximum Class Size: 30

Signatures:

I hereby submit this course syllabus:

Renee Faatz, , Associate Professor

I hereby find this course consistent with the goals and resources of the Geology Department:

Renee Faatz, , Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Natural Science and Mathematics Division:

Dan Black, EdD, Associate Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)