

COURSE OUTLINE

GEO 101  
Course Number

Geography  
Course Title

3  
Credits

Required Materials:

Reference Liberal Arts Division Book List

Catalog Description:

Descriptions and analysis of the nations and the regions of the world with emphasis on the Western Hemisphere. Universal geographic concepts with location of region and nation evaluated in terms of physical environment, political, and economic trends.

Prerequisites: None

Corequisites: None

Latest Review: Fall 1997

Course Coordinator: David E. Collier

## I. Outline

### A. The Earth

A study of the size, shape, surface, and motions of the Earth, with attention to the grid system, day and night, the seasons, time zones and an introduction to the ecosystems of the biosphere.

### B. Maps - Cartography

The purpose and types of maps, charts, and globes. Explanation of scales, projections, and symbols. Raised model relief, and quadrangle maps, contour lines, and profiles. Photomapping and stereoscopy. Various maps are displayed in class.

### C. Landforms

1. Introduction to geology including the study of samples of igneous, sedimentary, and metamorphic rock.
2. Tectonic forces. Diastrophism, vulcanism, continental drift theory, and plate tectonics.
3. Gradational forces. The process of weathering by running water, gravity, glacial ice, wind, and oceanic waves, tides, and currents.
4. Types of landforms. The analysis, surface features, locations, and human uses of plains, hills, mountains, and plateaus.

### D. Weather and Climate

A survey of climate and weather, the atmosphere, clouds, solar energy, atmospheric moisture, barometric pressure, winds and storms. Climate changes and air pollution. Classification system, locations, and effects of climate on human society.

### E. Human Impact upon the Environment

Ecosystems, and the human impact on water, air, land, soil, plants and animals. Effects of pollution.

### F. Historical Cultural Geography

Prehistoric periods and the rise of civilization, Egypt and Mesopotamia.

### G. Demography

A study of the size, distribution, density patterns, and the four stages of population growth. The basic characteristics of populations and the current problems of overpopulation and stress on the environment.

## H. Political and Behavioral Geography

Political system and nations, and the effect of terrain on behavioral patterns.

## I. Economic Geography

1. Agriculture  
The locations and major types of farming such as subsistence, pastoral nomadic, intensive, plantation, mixed crop, dairy, and commercial grain and livestock.
2. Industry  
A brief history of the industrial revolutions. Aspects of manufacturing, factors affecting location, and a view of several industries: iron and steel, motor vehicle, textiles, food processing, and aircraft.  
International trade and transportation patterns.

## J. Natural Resources

1. Minerals
  - a. The sources and major types of minerals and their human uses. Metals and non-metallic minerals.
  - b. Energy and fuels. Pollution, conservation, re-cycling and alternatives.
2. Scientific farming and modern forestry practices.
3. The Earth's Waters
  - a. The study of the hydrologic cycle and of the sources, uses, and the current critical shortages of fresh water.
  - b. An introduction to oceanography, including the main oceanic features, waves, tides, and currents, shorelines, marine life, commercial fishing, and the present problems of the oceans such as pollution.

## K. Urban Studies

The development of cities and the locations, structures, and functions of urban areas. Commercial, industrial, and residential zones and their mutual tensions. Problems of urban regions and city planning.

## II. Objectives and Basic Concepts

The students will be expected to be able to demonstrate their knowledge, in class discussions and in written examinations, of the following basic concepts. These are presented throughout the course with numerous examples.

- A. The balance of the ecosystems.

- B. The interdependence of the environment.
- C. The relationships between human beings and the physical environment and their results.
- D. The dangers of human exploitation and pollution of the environment.
- E. The beneficial human impact on ecological patterns.
- F. The beauty of natural phenomena.
- G. Current problems and possible solutions with special reference to the U.S.A.

### III. Methods of Instruction

- A. The mode of instruction is basically a lecture discussion format, with frequent opportunities for student participation.
- B. During the semester, the class presentation includes brief ecology movies, slides, charts, maps, samples, and blackboard notes.
- C. Many references are made to the relationship between geography and aviation because the course enrolls students who are in the Flight Technology program.
- D. The course relates physical and human geography.

### IV. Required Work and Examinations

- A. Reading the textbook.
- B. Completing three tests (50%). Each test includes three quizzes and an essay. The students receive study guides for each quiz. The student is expected to demonstrate knowledge, in writing, of the course content.
- C. Completing a semester project (50%). Each student is expected to complete a project based on direct observation and experience, supported by research, in consultation with the instructor, chosen from a variety of geographical topics.

The projects are chosen from the following list:

1. Climate
2. Soil Analysis
3. Vegetation
4. Photography
5. Industry
6. Ecology
7. Erosion

8. Geology
9. Oceanography
10. Political Geography
11. City Planning
12. Aviation
13. Flight Control and Navigation
14. Cartography
15. Local Area