

Common Course Outline
GEOG 101
Introduction to Physical Geography
3 Semester Hours

The Community College of Baltimore County

Description

Introduction to Physical Geography

Examines the physical elements of geography; these include the earth in its orbit, the nature and distribution of landforms, the elements of weather and climate, soils, vegetation, the earth's shape, plate tectonics, landscape building and erosion.

Prerequisite: ENGL 052, RDNG 052, MATH 081

Overall Course Objectives

Upon completion of this course the student will be able to:

[1] explain the concepts of the global grid system and earth position in space including: latitude, longitude, international dateline, rotation, revolution, etc.(I, II, VI:1,2)

[2] explain how the earth's seasons develop; draw a diagram of the earth as it revolves around the sun and identify the significant positions and dates. (I, II, III:1,2,3)

[3] describe the composition, structure and change of the earth's atmosphere (I, IV, V, VI:1,3,7)

[4] describe the radiation and re-radiation processes and explain the concepts associated with heat exchange in the atmosphere (I, III, VI: 1,2,3,5)

[5] explain how weather systems develop and move and explain how factors such as wind, precipitation, and clouds develop (I, II, III:1,2,3,6)

[6] explain the difference between climate (long-term average of weather) and weather (day-to-day meteorological phenomena); describe the Koppen system; describe and locate the major climate types (I, II, III, VI: 1,2,7)

[7] diagram the hydrologic cycle and explain the movement of water through the earth's hydrosphere (I, II, III, VI: 1,2,4)

[8] identify the major biomes present on the earth's surface, describe their characteristics, and locate their positions on the earth's surface (I, III, IV, V, VI: 1,4,5,7)

[9] given a soil sample, in collaboration with other students, identify the different properties and components of soil (I, II, IV: 1,4,5,7)

[10] explain how soils develop and identify the different types of soils and state their characteristics (I, II, IV: 1,4,5,7)

[11] describe the structure of the earth from the core to the crust and identify the major characteristics/components of each layer (I, II, IV: 1,4,5,7)

[12] describe the internal processes at work in the formation of the earth's surface and explain how they are related to the process of Plate Tectonics (I, III: 1,3,4,5,7)

[13] describe the altering of the earth's surface through Gradational processes including weathering and mass-wasting (I, II, IV, V: 1,3,4,5,6,7)

[14] for each of the gradational agents (water, wind, and waves) explain the processes associated with each and describe how each agent alters the landscape (I, II, III, V: 1,3,4,5,6,7)

Major Topics

- I. Introduction to Earth
- II. Portraying the Earth
- III. Introduction to the Atmosphere
- IV. Insolation and Temperature
- V. Atmospheric Pressure and Wind
- VI. Atmospheric Moisture
- VII. Transient Atmospheric Flows and Disturbances
- VIII. Climatic Zones and Types
- IX. The Hydrosphere
- X. Cycles and Patterns in the Biosphere
- XI. Terrestrial Flora and Fauna
- XII. Soils
- XIII. Introduction to Landform Study
- XIV. The Internal Processes
- XV. Preliminaries to Erosion: Weathering and Mass-Wasting
- XVI. The Fluvial Processes
- XVII. Solution Processes and Karst Topography
- XVIII. The Topography of Arid Lands
- XIX. Glacial Modification of Terrain
- XX. Coastal Processes and Terrain

Course Requirements (VII)

Through a variety of learning experiences including lecture, class discussion, audio-visual material, the World Wide Web, interactive CD-ROMs, computer assignments, WebCt, textbooks and lab exercises the students will, independently and collaboratively, observe and evaluate the earth and its environs.

Students will be expected to demonstrate learning through the following:

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

- A. A minimum of 3 exams
- B. A minimum of 3 quizzes
- C. Participation in class discussions, oral presentations and/or collaborative reports
- D. Some formal and/or informal writing assignments that contribute to mastery of writing within the discipline of geography

Other Course Information

1. This course satisfies a College General Education requirement in the category, Biological and Physical Sciences.
2. Regular attendance and participation in class is a requirement for this course.
3. Students will be expected to have regular access to the required texts and such additional learning material as an instructor may assign.
4. The instructor, at his/her discretion, may arrange for guest lecturers, audio/visual presentations, and/or attention to current events as part of the Course content.
5. The instructor will be available to assist students through office hours, telephone, and in some cases voice mail and Internet mail.

