

**Common Course Outline**  
**GEOG 101**  
**Introduction to Physical Geography**  
**3 Credits**

**Community College of Baltimore County**

**Description**

**GEOG 101 – Introduction to Physical Geography** examines the physical elements of geography. These include Earth in its orbit; the nature and distribution of landforms; the elements of weather and climate; soils; flora and fauna; Earth's shape; plate tectonics; landscape building and erosion.

**3 Credits**

**Prerequisites and/or Corequisites:** ESOL 052 and ESOL 054 or ACLT 052 or ACLT 053; and MATH 082

**Overall Course Objectives**

Upon completion of this course students will be able to:

1. apply western standards of academic and scientific integrity to geography;
2. analyze historical, social, ethical, and/or political contexts relevant to geography;
3. apply the scientific method in solving problems related to geography;
4. explain the five themes of geographic research;
5. compare concepts relevant to the physical and cultural elements of geography;
6. explain the concepts of global grid systems and Earth's position in space and, where applicable, use mathematical concepts to calculate spatial parameters, such as the distance between surface features;
7. use mapping, graphics, and/or charting software to create visual aids to support analysis;
8. describe the composition, structure, and change of Earth's atmosphere;
9. describe the radiation and re-radiation processes and explain the concepts associated with heat exchange in the atmosphere;
10. explain how weather systems develop and move and explain how factors such as wind, precipitation, and clouds develop;
11. differentiate between climate and weather;
12. classify local and global climates using the Koppen system;
13. explain the movement of water through Earth's hydrosphere;
14. analyze spatial variations in Earth's biosphere by focusing on Earth's biomes and soil formation processes;
15. describe the structure of Earth from the core to the crust and identify the major characteristics/components of each layer;
16. describe the internal and external processes at work in the formation of Earth's surface and their relationship to plate tectonics; and

17. find, evaluate, use, and cite information gathered for timeliness, accuracy, and validity for written and / or oral projects.

### **Major Topics**

- I. Introduction to Earth
  - A. Five Themes of Geography
  - B. Environmental Spheres
  - C. Earth and Sun Relationships
- II. Mapping the Earth
  - A. Maps versus Globes
  - B. Spatial Properties of Maps
  - C. Coordinate Systems
  - D. Scale and Map Projections
- III. Introduction to the Atmosphere
  - A. Atmospheric Pressure and Wind
  - B. Atmospheric Moisture and Clouds
  - C. Weather
  - D. Climate
- IV. The Hydrosphere
  - A. Hydrologic Cycle
  - B. Surface Water Features and Groundwater
- V. The Biosphere
  - A. Earth's Biomes
  - B. Soils
- VI. The Lithosphere
  - A. Internal Processes Shaping the Earth
  - B. External Processes Shaping the Earth
  - C. Plate Tectonics
- VII. Local and Global Issues in Geography

### **Course Requirements**

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

#### **Grading/exams**

- A minimum of 3 exams including a cumulative final exam
- A minimum of 3 quizzes
- Participation in class discussions, oral presentations, and/or collaborative reports

Written Assignments: Students are required to use appropriate academic resources. Written assignments will account for at least 20% of overall course grade and range in a minimum length of 100-1000 words, depending on the assignment. Examples include: blog posts on geographic topics, map analysis research papers, and case study analyses.

### **Other Course Information**

This course is an approved 3-credit General Education course in the Biological and Physical Sciences category that does not fulfill the laboratory requirement. Please refer to the current CCBC Catalog for General Education course criteria and outcomes.

Date Revised: 03/02/2015