

SUNY Orange

SYLLABUS

3 Credits

Elements of Physical Geography 22-120

Instructor: Lawrence O'Brien

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Hours: Schedule hours on the office door or anytime I am free

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COURSE DESCRIPTION:

The study of the origin and distribution of the major physical features on the Earth's surface. Topics include an introduction to globes and maps, Earth-Sun relationships, weather, climate, oceans, land - forms, soils and natural vegetation.

22120 fulfills the mathematics and natural science requirement for Associate Degrees not requiring a lab science.

TEXT AND MATERIALS:

Introduction to Physical Geography, 1996., R. C. Scott, West Pub. Co., ISBN 0-314-06260-2.

Atlas of World Geography, Rev. 1999, Rand McNally, ISBN 0-528-17790-0

COURSE OBJECTIVES:

The student who successfully completes should be able to

- describe the subdivisions of the globe and locate features.
- describe the motions of the globe in space.
- explain the compositions, structure, and motions of the atmosphere.
- list characteristics and show the distribution of various climates.
- describe some characteristics of oceans.
- identify and describe the formation of some landforms.
- list characteristics of some major soil and vegetation groups.

GRADING:

Grades will be based on two or three lecture tests, several homework assignments, weekly location quizzes, and one comprehensive final exam. Scoring is on a point basis with tests worth 100 points each, homework and quizzes worth about 20 points each, and the final worth 140 to 200 points. Quizzes cannot be made up if you miss them. Late homework assignments will not be accepted if they are more than three weeks late. All late assignments receive only half the normal points. No assignments will be accepted after the last day of normal classes without previous permission from the instructor. Your grade may be lowered for missing assignments or for unexcused absences.

Perfect attendance is your responsibility. Never miss a class or lab. I consider even one absence to be excessive. The official school policy is stated in the college catalog.

SUPPORT SERVICES:

Tutoring services are available in the Library.

There are services available for students with disabilities. Any such conditions should be communicated privately to the instructor on the first day of class so that any necessary special arrangements or accommodations can be made.

Topics

I. Introduction

II. The Globe

- A. Rotation, revolution, seasons
- B. Latitude, longitude, time, maps

III. The Atmosphere

- A. Composition and structure
- B. Radiation and temperature
- C. Pressure, winds, and circulation
- D. Moisture and precipitation
- E. Air masses and storms
- F. Climate

IV. The Hydrosphere

- A. Oceans
 - 1. Ocean basin topography
 - 2. Water properties
 - 3. Circulation: currents, tides, and waves
- B. Groundwater, Lakes, Rivers, Glaciers

V. The Lithosphere and Landforms

- A. Earth materials and plate tectonics
- B. Volcanic and tectonic landforms
- C. Fluvial landforms
- D. Groundwater
- E. Glacial landforms
- F. Desert landforms
- G. Coastal landforms

VI. Soils and Vegetation

- A. Formation and distribution
- B. Environments and biomes

Be sure to consult the glossary (G-1 to G-15) in the book for definitions of unfamiliar words. Several of the chapter have problems included at the end of the chapter.