

Geography 107: Physical Systems of the Environment

Spring 2004 Section C125 MW 2:30-3:45 CA217

Course Objectives

Geography 107 is an introduction to the earth's physical environment, including climate, hydrology, landforms, soils, and vegetation. The objective of the course is to give you a basic understanding of global environmental patterns and the processes that produce them. As in other natural sciences, we are not interested just in describing patterns but in *explaining* them, so that we can understand the characteristics of particular places from general principles. Geography 107 is a fundamental course for Geography majors, providing a foundation for more advanced courses in physical and environmental geography. It should also be of value to anyone, geographer or not, who wants to appreciate the earth's physical landscapes and the sociocultural patterns that interact with them.

Course Requirements

Text: *Elemental Geosystems*, by Robert Christopherson (4th edition, 2004). The text is required. Reading assignments are listed in the course outline below.

Exams: There will be three exams in short-answer format. All of them, including the final, will be *noncomprehensive*, covering only material since the previous exam.

Exercises: I will assign 4 exercises to be completed outside class, mainly based on materials available via Internet.

Service learning option as substitute for one exercise: Students may substitute attendance at a work day scheduled by Indy Parks or the Nature Conservancy for one of the exercises. More details will be provided in class.

Grading

The course grade will be based on a scale of 200 points: Exam 1=30 points, Exam 2=40 points, Exam 3=50 points, and 4 exercises, @ 20 points = 80 points.

The following grading scale will apply to the course as a whole. Only the lower limit for each grade is shown. Pluses and minuses will be given for grades near the boundaries of the categories.

Grade	Per cent	Points (of 200)
A	85	170
B	75	150
C	60	120

D	50	100
F	below 50	below 100

Similar percentage boundaries can be applied to individual exams and exercises throughout the course, as a guide to where you stand.

Student-Instructor Communication

I will use Oncourse to send and receive class E-mail messages and to post and receive course materials, as far as possible. Please check Oncourse frequently. If you would like help in person, you may come to my office hours in Cavanaugh 317 immediately following class (MW 3:45-4:45). My office telephone is 274-1101.

Policies

Attendance and makeups: Attendance does not count toward the grade in itself. However, students are expected to attend all classes and to take exams on time. Makeup exams may be given for verifiable cases of sickness or similar emergency, at my discretion. Normally makeup exams must be taken during my office hours.

Incompletes: Incompletes will only be given to students who have successfully completed 75% of the course requirements, and then only for medical or other emergencies.

Cheating: Any student found cheating on an exam will fail the course. Please refer to the IU Code of Student Ethics for further information about student rights, misconduct, and disciplinary procedures.

Tentative Course Outline

<i>Date</i>	<i>Topic</i>	<i>Text reading</i>
Jan. 12	Introduction to the course	1 to 4
Jan. 14	Location and time on earth	13 to 20
Jan. 19	Martin Luther King Jr. Holiday	
Jan. 21	Solar energy and the electromagnetic spectrum; The seasons	38 to 47
Jan. 26	Heating of the atmosphere and vertical air temperature patterns	51 to 58; 71 to 78
Jan. 28	Geographical patterns of air temperature	84 to 97
Feb. 2, 4	Atmospheric and oceanic circulation	105 to 129

Feb. 9	Exam 1: through atmospheric and oceanic circulation	
Feb. 11, 16	Atmospheric water	135 to 149; 154 to 158; map, 181
Feb. 18, 23	Weather systems	158 to 173
Feb. 25	Earth's crust: composition and structure	249 to 262
March 1	Plate tectonics	262 to 271
March 3, 8	Earthquakes and volcanoes	283 to 310
March 10	Water resources	221 to 243
March 15, 17	Spring Break	
March 22	Exam 2: Atmospheric water through water resources	
March 24, 29	Weathering and mass movement	319 to 336
March 31, April 5	River systems and landscapes	343 to 368
April 7	Wind processes and desert landscapes	373 to 387
April 12, 14	Coastal processes and landscapes	400 to 415
April 19, 21	Glacial processes and landscapes	425 to 436; 442 to 450
April 26	Soils	457 to 465
April 28, May 3	Vegetation processes and patterns	483 to 521
May 5, 1:00	Exam 3: Weathering and mass movement through vegetation	