

# Earth's Physical Environment

## GEO 130, Section 001, spring 2011

**Time:** MWF 9:00 – 9:50am

**Place:** Whitehall Classroom Building Rm. 238

**Instructor:** Brian Grabbatin

**Office:** 1418 Patterson Office Tower

**Office Hours:** Fridays 10:00 am - 12:00 pm (and by appointment)

**Email:** [bcgr222@uky.edu](mailto:bcgr222@uky.edu)

- Type “GEO 130” in the subject line of all emails
- Allow for a 24 hour turnaround for an email reply

**Course Description:** This course is designed for students new to the subject of physical geography. This semester we will explore the spatial connections between Earth’s dynamic systems—including the atmosphere, hydrosphere, lithosphere, and biosphere. A key component of this course is to examine these physical systems of the Earth in relation to human life and contemporary environmental issues.

**Objective:** The main objective of this course is to introduce and illustrate major concepts related to the physical systems and processes on Earth. This course will prepare you for more advanced courses in physical geography and other earth sciences, as well as social science courses dealing with environmental issues. In sum, the topics covered in the course are important for students interested in coursework in the physical sciences and those who want to understand how the environment affects socio-economic systems.

### **Required Textbook:**

*Christopherson, Robert W. 2009. Elemental Geosystems (Sixth Edition). Pearson/Prentice Hall: Upper Saddle River, NJ.*

- In addition to reading the textbook, it will help for students to work through exercises on the accompanying CD and/or website to reinforce concepts covered in class.

## **Evaluation:**

Exams (60%) Four multiple choice exams are scheduled for this semester. They will include material covered during class lectures and the textbook chapters. These exams are not cumulative, but each topic in our course builds on concepts covered in previous chapters.

- *Exam 1 = 15% February 7*
- *Exam 2 = 15% March 7*
- *Exam 3 = 15% April 4*
- *Exam 4 = 15% May 4 at 8:00 am in Whitehall Classroom Building 238*

McConnell Springs Field Trip (15%): Students are required to meet on a Saturday to tour McConnell Springs. Students will collect data during the field trip, complete research at the library, and write a paper. This assignment will be posted on blackboard and discussed in class. You must make arrangements to attend this field trip.

*Only students with written documentation of a doctor's visit, family emergency, or University approved travel will be allowed to complete a make-up assignment. These circumstances must be negotiated with the professor before the scheduled field trip date.*

- *Field Trip: Saturday, March 26*
- *Field Trip Report Due: Friday, April 1*

Kentucky Arboretum Field Trip (15%): This project takes students on a guided tour of the "Walk Across Kentucky". During the visit you will collect information about the physical regions of the state and create a map of the state based on its geology, hydrology, and biogeography. Students will write a report and turn it in for a grade. This assignment will be posted on blackboard and discussed in class.

- *Report Due: Friday, April 22*

Assignments (10%): Throughout the semester the instructor will handout worksheets in class, ask students to write essays in class, and announce assignments which should be completed and brought to class. Students are expected to attend all scheduled class meetings in order to complete and turn in these assignments.

Extra Credit: To earn extra credit students can complete extra credit assignments or attend special events posted on blackboard. After attending an event, students must write a 500 word essay about what they learned and how it relates to the class. Each essay or assignment is worth 2 percentage points added to their final grade. Each student can earn up to 4 percentage points.

- *All extra credit assignments: Due on or before the last day of class, April 29.*

**Grading Scale:** A = (100-90%) B = (89-80%) C= (79-70%) D= (69-60%) E = (59- 0%)

All grades will be posted on blackboard so you can keep track of your progress. If you are concerned about your grades please come to my office and discuss it with me. Do not wait until the last week of class because it will be too late to turn things around.

**Make-up work:** Students are expected to turn in assignments on the scheduled due date. *Any late work will be penalized by one letter grade for each day late.* No make-up exams are permitted unless you present written documentation of a medical excuse or family emergency.

**Attendance and Excused Absences:** You are expected to attend all scheduled classes. In order to do well in this course it is important for you to attend regularly, listen, take notes, and ask questions. Material and assignments discussed in class are a component of your grade. If you are absent it is your responsibility to make sure you are caught up on the material covered and be aware of any homework that was assigned. If you are absent from a test or are unable to turn in an assignment the day it is due I must receive written documentation within one week of the absence. Legitimate excuses for absence include:

- Doctor's excuse for injury or illness.
- Documentation of a family emergency.
- Advanced notice of university approved travel.

### **Academic Integrity, Cheating, and Plagiarism**

CHEATING AND PLAGIARISM WILL NOT BE TOLERATED. You are expected to read and abide by section [6.3 of UK's Student Code](#). The minimum penalty for plagiarism and other forms of cheating is an "E" in the course, with suspension and dismissal possible.

**Classroom behavior:** Be respectful and considerate of the teacher and your classmates. Talking and whispering during class is disrespectful. You are expected to arrive on time, pay attention, take notes, and raise your hand to ask questions. Before class begins turn off and put away your cellular phones, ipods, and other electronic devices, they are not permitted for use in this classroom. LAPTOPS ARE NOT PERMITTED unless you have discussed it with me.

**Teacher Availability:** You are encouraged to ask questions and participate in class discussions. I am available during regularly scheduled office hours (Fridays from 10:00-12:00 in Office 1418 of the Patterson Office Tower). If you are unable to meet at these times you can schedule a meeting with me on another day ([bcgr222@uky.edu](mailto:bcgr222@uky.edu)).

**Disability Accommodations:** If you have been diagnosed with a learning disability (or believe you may have a learning disability) and require additional time to complete in-class work or need copies of in-class presentations, I encourage you to seek evaluation from the Disability Resource Center. Classroom or exam accommodations will be made for students who show official documentation with appropriate notice in advance. Interested students should contact the Disability Resource Center, 257-2754, room 2 Alumni Gym, [jkarnes@uky.edu](mailto:jkarnes@uky.edu).

**COURSE CALENDAR (Subject to Change)**

<b>WEEK/DATES</b>	<b>TOPICS/READING</b>	<b>EXAMS/HOLIDAYS/ETC.</b>
1: January 10-14	Intro to Physical Geography and Four Spheres <i>Read Chapter 1</i>	<b>FIRST CLASS:</b> <b>Wednesday January 12</b>
2: January 17- 21	Solar Energy and Seasons <i>Read Chapter 2</i>	<b>MLK Jr. Holiday: Monday Jan 17</b>
3: January 24 - 28	Atmospheric Composition and Function <i>Read Chapter 2 and 3</i>	
4: Jan 31 - February 4	Global Temperatures and Atmospheric Circulation <i>Read Chapter 3 and 4</i>	
5: February 7 - 11	Atmospheric Water and Weather <i>Read Chapter 5</i>	<b>EXAM 1:</b> <b>Monday February 7</b>
6: February 14 – 18	Weather and Water Resources <i>Read Chapters 5 and 6</i>	
7: February 21 - 25	Oceans and Global Climate <i>Read Chapter 13 and 7</i>	
8: Feb 28 – March 4	Climate Change and Variability <i>Read Chapter 7</i>	
9: March 7 - 11	Rock Cycle and Plate Tectonics <i>Read Chapters 8 and 9</i>	<b>EXAM 2:</b> <b>Monday March 7</b>
10: March 14 - 18	Spring Break	<b>NO CLASS</b>
11: March 21 - 25	Karst Landscapes and Weathering <i>Read Chapter 10</i>  Field Trip Preparations <i>Read field trip assignment</i>	<b>FIELD TRIP:</b> <b>Saturday March 26</b>
12: March 28 -April 1	Landforms and Plate Tectonics <i>Read Chapter 9 &amp; 10</i>	<b>FIELD TRIP REPORT DUE:</b> <b>Friday April 1</b>
13: April 4 - 8	Fluvial Geomorphology and Coastal Processes <i>Read Chapter 11 and 13</i>	<b>EXAM 3:</b> <b>Monday April 4</b>
14: April 11 - 15	Ecology <i>Chapter 16</i>	<b>NO CLASS: April 13 &amp; 15</b>
15: April 18 - 22	Soils, Ecosystems, and Biomes <i>Read Chapter 15 &amp; 16</i>	<b>ARBORETUM REPORT DUE:</b> <b>Friday April 22</b>
16: April 25 – 29	Rare Planet and Human-Environment <i>Read articles (“Earth Without People” and “Conservation for the People”)</i>	<b>EXTRA CREDIT DUE:</b> <b>Friday April 29 in class</b>
<b>May 4</b>	<b><i>Study for Exam</i></b>	<b>EXAM 4:</b> <b>Wednesday May 4 at 8:00 am</b>