

## Geography/Environmental Studies 127: Physical Systems of the Environment Fall 2007

**INSTRUCTOR:** Colin S. Belby

- 404 Science Hall                      262-8920                      [csbelby@wisc.edu](mailto:csbelby@wisc.edu)
- Office Hours: Tue 12:30 – 1:30, Wed. 9:00 – 10:00, Thu 12:30 – 1:30, and by appointment
- I will also have an open door office policy, so swing by and I may be there!!

**TAs:** Julia Ferguson    408 Science Hall        262-8920                      [jkferguson@wisc.edu](mailto:jkferguson@wisc.edu)  
Paul Reyerson        413 Science Hall        262-8897                      [reyerson@wisc.edu](mailto:reyerson@wisc.edu)

**REQUIREMENTS:** Attend lecture 2 times per week and laboratory once per week. Lab exercises involve analysis and interpretation of environmental data, including experimental, numerical, and cartographic methods. In addition to taking the lecture exams, attendance in the laboratory and earning over 50% of the laboratory grades are required to pass the course. You will receive specifics on lab requirements in lab.

### **TEXT/SUPPLEMENTS:**

- Textbook  
*Physical Geography: Science and Systems of the Human Environment, 3<sup>rd</sup> Edition*, by A. Strahler and A. Strahler, Wiley, 2005.
- Lab Manual  
*Physical Systems of the Environment Workbook, 14<sup>th</sup> ed.*, by J. Burt, J. Knox, and T. Vale.
- Geography 127 Web Page  
<http://www.geography.wisc.edu/classes/geog127/index.html>  
Syllabi, Assignments, Contact Info, Weekly Lab Schedule
- Learn@UW  
<https://learnuw.wisc.edu/>  
Exam Scores, Supplemental Handouts, Pertinent Web Sites

**EXAMS:** Three 75-minute examinations each worth 60 points will be given over the course of the semester. The exam format will consist of multiple choice and matching questions. The last exam will be on the last day of instruction. Exams are non-cumulative and will focus on the material covered since the previous exam.

**GRADING:** Your final grade will be determined from the class examinations, and the laboratory quizzes and assignments. The lecture component of the course is worth 190 points and the laboratory component of the course accounts for an additional 90 points, for a total of 280 potential points to be earned over the course of the semester.

### Tentative Lecture Topics

Date	Lecture Topic	Text Chapter
Tuesday 9/4	Introduction, The Environmental System, Earth-Sun Relations	3
Thursday 9/6	Earth-Sun Relations, Solar Radiation	3, 4
Tuesday 9/11	Solar Radiation, Air Temperature, Composition of the Atmosphere	4, 5
Thursday 9/13	Moisture in the Atmosphere	6
Tuesday 9/18	Air Pressure and Atmospheric Stability	6, 7
Thursday 9/20	Global Atmospheric Circulation	7, 8
Tuesday 9/25	Regional Circulation	7, 8
Thursday 9/27	Global Climate Regions	10, 11
Tuesday 10/2	Global Climate Regions	10, 11
Thursday 10/4	Global Climate Change Past and Present, Potential Implications	
Tuesday 10/9	<b>Exam 1</b> (covers material through Global Climate Regions)	
Thursday 10/11	Vegetation Systems, Major Vegetation Biomes	24
Tuesday 10/16	Major Vegetation Biomes	24
Thursday 10/18	Soil Systems - Properties and Development	21
Tuesday 10/23	Soil Systems and Soil Orders	22
Thursday 10/25	Soil Orders: Characteristic and Distribution	22
Tuesday 10/30	Rock Systems and the Rock Cycle	12
Thursday 11/1	Earth Materials and the Lithosphere	13
Tuesday 11/6	Tectonics and Rock Structure	14
Thursday 11/8	<b>Exam 2</b> (covers material through Earth Materials and the Lithosphere)	
Tuesday 11/13	Earthquakes and Volcanos	14
Thursday 11/15	Weathering and Mass Wasting	15
Tuesday 11/20	Weathering and Mass Wasting	15
Thursday 11/22	<b>Thanksgiving Recess - No Class</b>	
Tuesday 11/27	Hydrologic Cycle, Groundwater	16
Thursday 11/29	Fluvial Processes and Landforms	17
Tuesday 12/4	Fluvial Processes and Landforms	17
Thursday 12/6	Glacial Processes	20
Tuesday 12/11	Glacial Processes, Landforms and Summary/Conclusions	20
Thursday 12/13	<b>Exam 3</b> (non-cumulative, material since the 2nd exam)	