Geography/I.E.S 127
Physical Systems of the Environment
Fall 2009 - Syllabus

Instructor: Karen Russ
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Office Hours: Thursday, 1:20-2:20 p.m.; Friday, 11:30-12:30 p.m.; or by appointment.

Head T.A.: Jena Krause: 404 Sci. Hall; 262-8920; akrause3@wisc.edu ; Office Hrs: M 10-11:15, T 2:15-4:00
T.A.: Leslie Sinak: 412 Science Hall; 262-8920; sinak@wisc.edu ; Office Hrs: W 2:00, R 1:00-3:00

Overview of the Course
This course is an introduction to *physical geography*, which is the study of natural environmental systems, emphasizing how these systems produce local and global patterns of weather and climate, vegetation, soils, rivers, and landforms. The first objective of the course is to provide a basic understanding of the processes shaping the environment in which we live. The second is to convince you of the dynamic nature of that environment, and the degree to which it has changed in the past and is changing at present, in part because of human activity. The course has separate **lecture** and **lab** components, which are coordinated so the labs provide you with a more in-depth understanding of many of the same basic concepts discussed in lecture, along with new material. The three *exams* are based on topics covered in lecture, and there are separate lab quizzes to test your understanding of lab material. The labs include indoor and field lab exercises and a **mandatory** field-based semester paper assignment. A review assignment on weather and climate is also part of the lab work; this is timed so that it should help you prepare for the lecture exam that covers the same topics.

Prerequisites
There are no prerequisites for this class, but students are expected to be geographically literate. You should know the location of the world's continents and oceans, the 50 states and major natural features like the Mississippi River or the Rocky Mountains.

Required Textbooks
The main text, **Geosystems, 7th ed.** by Christopherson, comes bundled with **Goode's World Atlas** and a supplemental text, **Dire Predictions**, by Mann and Kump, under the ISBN #0321576659. This should be available at the University Bookstore (under an alternate ISBN). The lab manual, **Physical Systems of the Environment, 14th ed.**, by Burt, Knox & Vale, is available at Bob's Copy Shop at 1401 University Av.

Grading
The final course grade will be based on three equally weighted lecture exams (69%) and work in lab (31%). The exams will be 46 points each and the lab total 62 points for a course total of 200 points. ***You must receive a passing grade in both lecture and lab components to pass the course as a whole.*** The lecture exams will be in multiple-choice format and are not comprehensive. If you must be out of town for a lecture exam, please discuss this with the instructor as early as possible in the semester, or it may not be possible to schedule an alternative exam time. If you miss an exam because of an emergency or health issues, notify the instructor as soon as possible, preferably within 24 hours. Extra time for exams or other accommodations should be arranged through the McBurney Center. ***Extra credit is not offered***.

Honors
If you are registered for honors credit, please contact Jena Krause (Head TA) *during the first three weeks of the semester* to discuss the required project.

Week	Week starting	Reading	Lecture Topic	Lab
1	Thurs, Sept. 3	Ch. 1	1. Intro, geographic grid, map projections, measuring Earth	No Labs
2	Mon, Sept. 7	Ch. 11	1. Earth's structure, minerals and rocks 2. Plate tectonics	Lab #1: Topography Maps **Monday students attend different lab section.**
3	Mon, Sept. 14	Ch. 12 Ch. 13	1. More tectonics, earthquakes, volcanoes 2. Weathering, karst	**FIELD TRIP!** Meet at Picnic Point Lab #3: Microclimate and Topography
4	Mon, Sept. 21	Ch. 2 Ch. 3	1. Sun/earth relationships 2. Atmosphere	Lab #12: Rocks and Minerals Meet in Weeks Hall
5	Mon, Sept. 28	Ch. 4 Ch. 5	1. Energy balances 2. Global temperatures	Lab #13: Landform Analysis **Lab Quiz 1**
6	Mon, Oct. 5	Ch. 18	**Review Session 6 p.m. Monday** 1. **EXAM 1 Tuesday** 2. Soils	**FIELD TRIP!** Meet at Picnic Point Lab #9: Vegetation
7	Mon, Oct. 12	Ch. 18 Ch. 19	1. Soils continued 2. Ecosystems	**FIELD TRIP!** Meet at Picnic Point Lab #11: Soils
8	Mon, Oct. 19	Ch. 20 Ch. 14	1. Terrestrial biomes 2. Rivers	Lab #10: Soil Descriptions
9	Mon, Oct. 26	Ch. 17	1. Glaciers 2. "	**FIELD TRIP!** Meet at Picnic Point Water Resources Lab
10	Mon, Nov. 2	Ch. 6	1. Atmospheric & Oceanic Circulation 2. "	Lab #16: Glacial Landforms **Lab Quiz 2**
11	Mon, Nov. 9	Ch. 7	**Review Session 6 p.m. Monday** 1. **EXAM 2 Tuesday** 2. Water & Atmospheric Moisture	Lab #2: Variations in Pressure, Radiation, and Temperature through Space and Time
12	Mon, Nov. 16	Ch. 8	1. Weather 2. "	Lab #4 & 5: Moisture in the Atmosphere and Adiabatic Processes
13	Mon, Nov. 23	Ch. 9	1. Water Resources 2. Eat turkey	**Thanksgiving Break** No Labs
14	Mon., Nov. 30	Ch. 10 Geosys. Dire Predictions (ch. 1-2)	1. Global climates 2. Climate change	Lab #6: Middle Latitude Weather
15	Mon, Dec. 7	Dire Predictions (ch. 3-4) Ch. 16 Geosys.	1. Climate change continued 2. Oceans	Lab # 7: Global Climate **Lab Quiz 3**
16	Mon, Dec. 14	Ch. 16	**Review Session 6 p.m. Wednesday** 1. Oceans continued 2. **EXAM 3 Thursday 7:45-9:45 A.M.**	No Labs Note: Final exam is non-comprehensive.