

# **GEO 2410 – INTRODUCTION TO PHYSICAL GEOGRAPHY**

## **TEXAS STATE UNIVERSITY, FALL 2003**

**Instructor:** Mark A. Fonstad

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**Office Hours:** 12:30 PM – 2:00 PM Tuesdays and Thursdays or by appointment

**Class Time:** 2:00 PM – 3:15 PM Tuesdays and Thursdays

**Classroom:** Evans Liberal Arts (ELA) Building, Room 116

**Course Line Number:** 255559

### **Laboratory Instructors:**

Dawna Cerney (dc1086@swt.edu, ELA 399, 245-0341)

Sarah Cummings (sarah\_cummings80@hotmail.com, ELA 113, 245-7961)

Jessica Mefford (jm1308@swt.edu, ELA 113, 245-7931)

Carol Sawyer (cs1123@swt.edu, ELA 396, 245-0328)

### **COURSE DESCRIPTION**

This course is a systematic study of the various elements that make up the Earth's physical environment, weather, climate, vegetation, soil, and landforms. These systems transfer matter and energy among different earth systems (atmosphere, hydrosphere, lithosphere, biosphere).

This course is concerned with the natural processes that interact to produce the earth's varying physical environments. Relationships and explanations involving the basics of matter and energy transfer are emphasized throughout the course -- not descriptions. Because geography is a discipline that encompasses both natural and social science, physical geography deals with the interface between human and natural systems. The emphasis of the course, however, is on the nature of the processes that affect the lithosphere, hydrosphere, atmosphere, and biosphere.

### **LEARNING OUTCOMES**

#### ***Knowledge outcomes.***

1. Students will explain how the earth works as an energy/matter system with emphasis on the inputs of solar and internal earth energy.
2. Students compile and integrate information about the atmosphere, hydrosphere, biosphere, and lithosphere of the earth.
3. Students are able to explain spatial distributions of the environment from an energy/matter physical geography perspective.

#### ***Skills outcomes.***

1. Students will apply skills learned in laboratory section in the measurement of earth's physical systems, for example map reading, soil analysis, data collection and analysis of atmospheric or hydrologic process and conditions.
2. Students will analyze patterns and processes of the landscape during accurately conducted fieldwork.

## **COURSE MATERIALS**

Readings for this class will be from the textbook, Essentials of Physical Geography by Gabler, Sager, Wise, and Petersen (7<sup>th</sup> Edition) available at the SWT Bookstore. Other materials are required for the lab sections, and will be discussed by your lab instructor.

## **EVALUATION AND GRADING POLICIES**

I will evaluate your performance and assign grades based on two major areas of work in this course. First, I will assess your knowledge of the lecture material with three examinations (two midterms and a final). Second, your performance in the laboratory section is also used to evaluate your final grade.

All students are expected to take exams at the scheduled time. Make up exams will be given to students who have excused absences; however, make up exams will be different than those given at the scheduled time, and all make up exams will be given on the same day as the Final Exam. Exams should be returned to students within one week of the exam date.

There is a maximum of 400 points for all of the lecture exams and lab exercises. The basis for grading will be as follows: 100 points for each of two midterm examinations, 100 points for a final examination, and 100 points for the laboratory section grade. The final grades will be determined based on the following rules:

A	≥90% (≥360 points)
B	≥80% and <90% (320 – 359 points)
C	≥70% and <80% (280 – 319 points)
D	≥60% and <70% (240 – 279 points)
F	<60% (< 240 points)

## **CLASSROOM AND ATTENDANCE POLICIES**

Good attendance in lecture and lab is key to your success in this course. First, the exams will be based on lecture material. Second, the lab schedule is rigorous, and you will quickly fall behind if you repeatedly miss labs. If you have an unexcused absence on an exam or assignment due day, you will receive a zero on that exam or assignment.

If you must miss class or an exam because of an illness, a personal emergency, or some other extenuating circumstance, please contact me as soon as possible so I can make alternative arrangements for you (this is key). Of course, good attendance means more than just showing up for class. Please read and adhere to the policy on classroom etiquette that appears below. These codes of conduct will allow everyone to participate equally as learners. Thank you for your cooperation.

In the Department of Geography, instructors strive to create an atmosphere of mutual trust and respect in which learning, debate, and intellectual growth can thrive. Creating this atmosphere, however, requires that instructors and students work to achieve a classroom in which learning is not disrupted. At the most basic level, this means that everyone should attend class, be prepared with readings and assignments completed, and that students pay attention. This means no conversations with friends, reading the newspaper, coming late, or leaving early. Such behavior is disruptive to the instructor and to your fellow classmates.

## **STUDENTS WITH DISABILITIES**

Students with special needs (as documented by the Office of Disability Services) that will require compensatory arrangements must contact the instructor no later than the fourth class

period to discuss specific arrangements and logistics. Students who have not already done so will be required to contact the Office of Student Disability Services located at LBJ5-5.1 (245.3451). *SWT is dedicated to providing these students with necessary academic adjustments and auxiliary aids to facilitate their participation and performance in the classroom.*

### SWT ACADEMIC HONESTY POLICY

Learning and teaching take place best in an atmosphere of intellectual fair-minded openness. All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. Plagiarism and other forms of academic dishonesty undermine the very purpose of the university and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in *SWTexan*.

<b>Schedule by Week</b>	<b>Topics</b>	<b>Readings</b>
Aug 26, 28	<i>No Class Tuesday</i> Class Introduction, Earth Measurement	Chapter 1 & 2
Sep 2, 4	Earth Systems, Earth-Sun Relationships	Chapter 3
Sep 9, 11	Electromagnetic Spectrum, Composition & Structure of the Atmosphere	Chapter 4
Sep 16, 18	Radiation and Budgeting, Greenhouse Effect, Atmospheric Temperature and Pressure	Chapter 4 & 5
Sep 23, 25	Winds, Global Circulation Patterns	Chapter 5 & 6
Sep 30, Oct 2	<b>Exam 1 (Tuesday, September 30)</b> <i>No Class Thursday, I will be at M.I.T in Boston</i>	
Oct 7, 9	Moisture and Air Masses, Synoptic Meteorology	Chapter 7 & 8
Oct 14, 16	Present-day Climatology, Climate Classification	Chapter 9 & 10
Oct 21, 23	Biogeography and Introduction to Ecosystems	Chapter 11
Oct 28, 30	Soils <b>Exam 2 (Thursday, October 30)</b>	Chapter 12
Nov 4, 6	Plate Tectonics, Constructional Landforms	Chapter 13 & 14
Nov 11, 13	Weathering, Karst and Groundwater	Chapter 16
Nov 18, 20	Mass Wasting, Fluvial Landforms	Chapter 15 & 17

**Nov 25, 27**      *No Class Tuesday, I will be in Moscow*  
*No Class Thursday, Thanksgiving Break*

**Dec 2, 4**      Glacial, Arid, and Coastal Landforms      **Chapter 18, 19, 21**

**Dec 9, 11**      *No classes Tuesday or Thursday*

**Final Exam, Tuesday, Dec 16, 3:00 – 5:30 pm**

### **ABOUT THE INSTRUCTOR**

The instructor is Mark A. Fonstad, assistant professor of geography. He is a specialist in spatial and hydrological analysis of river systems, applied remote sensing, and theoretical fluvial geomorphology. Mark received his Ph.D. in Geography from Arizona State University (2000) where he researched mountain fluvial systems and the prediction of channel change in New Mexico. For the past four years, Mark has directed the field research on channel morphology, watershed hydrology, and the remote sensing of rivers in Yellowstone National Park.

