

THE GLOBAL ENVIRONMENT  
ENVR/GEOG/GEOS 2302  
FALL 2014  
ATC 1.305; 2:30 – 3:45 Tuesdays/Thursdays

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**Office:** GR 3.221  
**Office Hours:** Tuesdays, 11:00 a.m. – 1:00 p.m. or by appointment  
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## GENERAL COURSE INFORMATION

### Description and Objectives:

This class is an introduction to the physical aspects of the world's geography, emphasizing the major systems within the natural environment: climate; vegetation; soils; hydrology (water); and landforms. We will examine the processes and environmental interactions that allowed for these systems to be shaped within the atmosphere, biosphere, lithosphere and hydrosphere. The distribution of natural features around the earth and explanations for why these features are found here will be addressed and how global systems work to produce regional differences. Some attention will also be placed to the interaction between humans and the 'natural systems' that function in these environments. At the end of the class, students will be able to describe laws and theories that are critical to physical geography and observe facts to arrive at informed conclusions.

### Texts:

The lecture and exercise materials are derived from a number of sources (mainly textbooks). These sources, listed below, are available through the UT Dallas Bookstore (1), online merchants including Amazon.com (2, 3, 4), and online (5). The texts are listed as required and recommended.

### Required texts:

1. Hess, D. & Tasa, D.G. 2014. **McKnight's Physical Geography: A Landscape Appreciation**, 11<sup>th</sup> Edition, Pearson
2. Hammond, **Odyssey World Atlas**, 2001 or ANY WORLD ATLAS.

### Recommended texts:

3. Strahler, A. 2013. **Introducing Physical Geography**, 6<sup>th</sup> edition, Wiley, 2013.
4. Christopherson, R. W. 2009. **Geosystems: An Introduction to Physical Geography**.
5. Ritter, M. E. 2011. **The Physical Environment: an Introduction to Physical Geography**.  
Available at [http://www.earthonlinemedia.com/ebooks/tpe\\_3e/title\\_page.html](http://www.earthonlinemedia.com/ebooks/tpe_3e/title_page.html) last visited July 7, 2014.

## COURSE POLICIES

### Requirements:

This course meets two days per week for one hour and fifteen minutes. During this time there will be lectures, discussion and exercises. You are required to attend lectures and complete assigned exercises, and most importantly take notes. You have the responsibility of getting your own notes, but lecture slides will be uploaded to Blackboard (eLearning) after class. Exams will be based on lectures and readings, while quizzes will be based on the required readings only. In addition to lecture notes, there is a list of natural features (page 3 of this syllabus) which locations you must learn to identify on a world map for exams.

### Grading:

Your final grade for this class will be determined from five areas: exams, quizzes, class participation, a group project, in-class exercises and attendance. There are three exams and three quizzes in this class. Exam format

will include multiple choice, matching, short written answer and essay questions, while quizzes will generally contain five (5) short questions covering readings for a specified period (please see academic organizer on page 4). There will also be thirteen (13) in-class exercises distributed across the semester (please see academic organizer on page 4). To ensure your full class participation grade you must submit correct responses to at least seven (7) of these exercises. The format for each exercise response will vary and will be announced in class before each is due. As a matter of fairness you must be present in class on the day an exercise is scheduled in order to receive credit for a submission. However, you are more than welcomed to complete an exercise and check for the correct answers with me at any time. Questions on the content of exercises are also likely to show up on exams and quizzes - so please ensure you understand these. The attendance grade will be computed from attendance on 6 random days distributed throughout the semester. Each student is allowed one free miss on a random day, however, if you are absent on more than one random day, the proportion of the 10% (2% per day) of class participation grade will be deducted from your overall course grade. In fairness to other students, proof of absence (e.g. a doctor's letter) will be required if you are ill or have a personal emergency and will need to make up an exam. You must speak to me or send me a message as soon as you learn you will miss the regularly scheduled exams or quizzes. The details of the group project will be announced as the course progresses

**Grade breakdown and criteria:**

3 exams (20 % each)	60%
One group project	5%
3 quizzes (5 % each)	15 %
Exercises and Participation	10 %
Attendance	10 %

**Letter grades:**

A+ > 95; A = 93-95; A- = 90-92; B+ = 87-89; B = 83-86; B- = 80-82; C+ = 77-79; C = 73-76;  
C- = 70-72; D+ = 67-69; D = 63-66; D- = 60-62; F = <59

**ACADEMIC HONESTY & CONDUCT**

Please refer to the Academic Integrity Policy for the University of Texas at Dallas:

<http://www.utdallas.edu/deanofstudents/dishonesty/>. All suspected cases of academic dishonesty (cheating, plagiarism, collusions, etc.) will be immediately forwarded to the Office of Judicial Affairs. To avoid being suspected of dishonesty, in instances where you may have spent a lot of time studying with someone else, and I encourage you to work together, please ensure your submitted work reflects your unique thoughts and ideas. Sit away from persons with whom you may have studied during exams, this will avoid suspicion of 'cross duplication' on scripts. Show respect to others by arriving on time for classes and staying the full length of the lecture or discussion. Late arrivals disturb everyone already in class. Allow others to speak, even when you may disagree with them. Do not have personal conversations during class (this also means turning off your cell phones and laptops while in class). Food and beverages may be brought into class but you are responsible for cleaning up after you.

**RELIGIOUS OBSERVANCES**

I would like to accommodate any scheduling needs related to conflicts between this course and students' religious beliefs. If you are unable to attend lecture or exam because it falls on a religious holiday, please notify me (via a written note or email) at least by the end of the first week of class so that you will be accommodated.

**DISABILITY**

If you need accommodations for a disability, I would be more than happy to make these for you. Please contact the Office of Student Affairs (<http://www.utdallas.edu/studentaffairs/>) to complete the relevant paperwork to share with me.

## PLACE LOCATIONS FOR EXAMS

Understanding where things are in the world will help you to gain perspective when we talk about some of these in class. You can get the Atlas listed in this outline, but there are also atlases in the library that can show you where these features are located. The list below gives you the features you should know for each exam.

### Exam 1

#### **Continents**

North America  
South America  
Eurasia  
Africa  
Australia  
Antarctica

#### **Water Bodies**

Atlantic Ocean  
Pacific Ocean  
Indian Ocean  
Arctic Ocean

#### **Mountain Ranges**

Rocky Mountains  
Sierra Nevada (USA)  
Andes  
Alps  
Himalayas

#### **Other Features**

Great Rift Valley  
Arabian Peninsula

#### **Rivers**

Amazon  
Mississippi  
Nile  
Yangtze (Chang Jiang)  
Congo

#### **Islands**

Greenland  
Iceland

### Exam 2

#### **Water Bodies**

Caribbean Sea  
Red Sea  
Black Sea  
Great Lakes (know each)  
Gulf of Mexico  
Baltic Sea  
Hudson Bay  
Mediterranean Sea

#### **Mountain Ranges**

Appalachians  
Cascades  
Urals  
Atlas

#### **Other Features**

Great Plains  
Great Basin  
Sahara Desert

#### **Rivers**

Rio Grande  
Euphrates  
Colorado  
Brahmaputra  
Yellow (Huang He)

#### **Islands**

Islands of Japan (collectively)  
Philippines (collectively)

### Exam 3

#### **Water Bodies**

Bering Sea  
Adriatic Sea  
Aral Sea  
Caspian Sea  
Persian Gulf  
Arabian Sea  
South China Sea  
Bay of Bengal  
Lake Baikal

#### **Mountain Ranges**

Pyrenees  
Zagros  
Caucasus

#### **Other Features**

Kalahari Desert  
Gobi Desert  
Tibetan Plateau

#### **Rivers**

Mekong  
Volga  
Danube  
Thames  
Orinoco

#### **Islands**

New Zealand (collectively)  
Madagascar

## ACADEMIC ORGANIZER

	Week	Date	Topic	Strahler Chapter (s)
FROM BELOW: THE SOLID EARTH	1	26-Aug	Introductions; Physical Geography	Chapter 1
		28-Aug	Structure of the Earth & Plate Tectonics I/ Exercise 1: Locations on Earth (Latitude & Longitude; Time zones)	Chapters 13 & 1
	2	2-Sep	Structure of the Earth & Plate Tectonics II/Exercise 2: Topographic Maps	Chapters 13 & 2
		4-Sep	Tectonism & Volcanism/ Exercise 3: Minerals and Rocks <b>Quiz 1 (Materials from 26-Aug to 4-Sep)</b>	Chapters 13 & 14
FROM ABOVE: THE ATMOSPHERE	3	9-Sep	Composition & Vertical Structure of the Atmosphere	Chapters 3
		11-Sep	Earth's Motion Relative to the Sun; Solar and Terrestrial Radiation I/ Exercise 4: Earth - Sun Relations	Chapters 1 & 4
	4	16-Sep	Solar and Terrestrial Radiation II/ Exam Review	Chapter 2
		18-Sep	<b>Exam 1 (Everything from 26-Aug to 16-Sep)</b>	
	5	23-Sep	Global Energy Balance	Chapter 4
		25-Sep	Atmospheric Forces & Motion/Exercise 5: Air Pollution	Chapters 3 & 5
	6	30-Sep	General Circulation of the Atmosphere/Exercise 6: Tropical Cyclones	Chapter 5
		2-Oct	<b>Quiz 2 (Materials from 23-Sep to 30-Sep)</b> Atmosphere-Ocean Interactions/Exercise 7: El Niño	Chapter 5
	7	7-Oct	Moisture in the Atmosphere/ Exercise 8: Moisture and Humidity	Chapter 4 & 6
		9-Oct	Atmospheric Stability; Precipitation/ Exercise 9: Adiabatic Processes	Chapter 6
	8	14-Oct	Air Masses and Fronts; Midlatitude Cyclones/Exam Review	Chapter 7
		16-Oct	<b>Exam 2 (Everything from 23-Sep to 14-Oct)</b>	
	9	21-Oct	Clouds /Exercise 10: Weather Maps	Chapter 6
IN THE MIDDLE: AT THE EARTH'S SURFACE		23-Oct	Distribution of Climate Types I/Exercise 11: Climographs and Climate Distribution	Chapter 8
	10	28-Oct	Distribution of Climate Types and Climatic variability	Chapter 7
		30-Oct	Biogeographic Processes	Chapters 10 & 11
	11	4-Nov	Vegetation: Description; Influences; Distribution	Chapter 10
		6-Nov	Soil Profiles and Soil Forming Factors; Soil Distribution/ Exercise 12: Soils	Chapter 12
	12	11-Nov	Hydrology/Exercise 13: Flood Probability and Recurrence Intervals	Chapter 9
		13-Nov	Erosional Slope Processes and Forms	Chapter 15
	13	18-Nov	Weathering and Mass Wasting	Chapter 15
		20-Nov	Coastal Processes and Terrain <b>Quiz 3 (Materials from 21-Oct to 18-Nov)</b>	Chapter 17, 18 & 20
	14	23-30-Nov	<b>NO CLASSES – THANKSGIVING BREAK</b>	
	15	2-Dec	Fluvial Processes and Landforms/Exercise 13: Inferno	Chapter 16
		4-Dec	Glacial Processes and Landforms Course Review and Wrap –up/ Exam review	Chapter 19
	16	9-Dec	<b>Exam 3 (Everything from 21-Oct to 4-Dec)</b>	