Course	ENVR/GEOG/GEOS 2302: The Global Environment
Term	Fall 2016
Meetings	Tuesdays & Thursdays 2:30 – 3:45 P.M., GR 3.402A & B

Instructor:	**Dr. Anthony Cummings**
Office:	GR 3.528
Office Hours:	Tuesdays 3:45 – 5:00 P.M. or by appointment
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Teaching Assistant:	**Ms. Yogita Karale**, yyk160030@utdallas.edu, GR 3.414
Office Hours	Thursdays 1:00 P.M. - 3:00 P.M.

GENERAL COURSE INFORMATION

Description:

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 where they are will be addressed and how global systems work to produce regional differences. Some attention will also be placed on the interaction between humans and the 'natural systems' that function in these environments.

Learning outcomes:

At the end of the class students will be able to:

- describe laws and theories that are critical to physical geography and the earth system
- observe, analyze, evaluate and synthesize facts on Earth's physical phenomena
- use numerical data to arrive at informed conclusions on Earth's physical phenomena
- work effectively with others to examine and articulate issues critical to the global environment

Texts and Materials:

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), and online (4). The texts are listed as required and recommended.

Required texts:

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

Recommended texts:

3. Christopherson, R. W. 2009. Geosystems: An Introduction to Physical Geography.
4. *Ritter, M. E. 2011. The Physical Environment: an Introduction to Physical Geography. Available at http://www.earthonlinemedia.com/ebooks/tpe_3e/title_page.html last visited 8/17/2015. *Students are not required to print material available electronically.

COURSE POLICIES

Requirements:

This class meets twice per week and you are required to attend lectures, complete assigned readings

and take notes. Lecture slides will also be uploaded to eLearning after class. Exams will be based on lectures and readings, while quizzes will be based on the required readings only (please refer to the schedule on page 4). In addition to lecture notes, there is a list of natural features (page 3 of this syllabus) which you must be able to identify on a world map for each exam.

Grading and attendance:

The final grade for this class will be determined from six main areas: exams, quizzes, classroom participation, a group project, in-class exercises, and attendance.

Exams and quizzes: There are three exams and three quizzes in this class. Exams include multiple-choice, matching, short written answer and essay-type questions, while quizzes will vary from five (5) short questions or multiple-choice questions. Quizzes cover readings for a specified period (please see academic organizer on page 4).

Exercises: There are fourteen (14) in-class exercises and assignments distributed across the semester (please see academic organizer on page 4) and you are required to submit responses for ten (10) in order to gain the exercise portion of the grade. Exercise responses are due **one week** after they are presented in class. The format for each exercise response will vary and will be announced in class along with the submission requirements, including whether they should be submitted via eLearning or hard copy. **You must be in class on the day an exercise is presented in order to receive credit for a submission,** but you are welcomed to complete all exercises and check for the correct answers with me or the TA. Questions on the content of exercises are also likely to show up on exams and quizzes - so please ensure you understand these.

Attendance: The attendance grade will be computed from 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 5% (1% per day) of class participation grade will be deducted from your overall course grade.

Group project: a small group (2-3 persons) will research a topic of their choice or one assigned by the professor and present their findings to the class. Details on the final project will be presented on the first day of class and will be available on eLearning.

Make-up Exams: The dates for exams and quizzes are listed on page 4. 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 or quiz.

Late work: Late submission of work will be penalized 10 % per day. Grade breakdown and criteria:

2 exams (20 % each)	40%
One group project	15 %
5 quizzes (5 % each)	25 %
Exercises	10 %
Participation	5 %
Attendance	5 %

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/.

Comet Creed: *This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:* ***"As a Comet, I pledge honesty, integrity, and service in all that I do."***

CLASSROOM CITIZENSHIP

Show respect for others by arriving to class on time and staying the full length of the lecture or discussion. Allow others to speak, even when you may disagree with them. Please turn off your cellphones while in class. Food and beverages may be brought into class but you are responsible for cleaning up after you.

DISABILITY

Please contact the Office of Student Affairs (http://www.utdallas.edu/studentaffairs/) to complete the relevant paperwork to share with me.

UT Dallas Syllabus Policies and Procedures: The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

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	Hess Chapter (s)
FROM BELOW: THE SOLID	1	23-Aug	Introductions; Physical Geography	Chapter 1/due
		25-Aug	Structure of the Earth/ Exercise 1: Locations on Earth (Latitude &Longitude; Time zones)	Chapters 13 & 1
	2	30-Aug	Structure of the Earth/Exercise 2: GIS/DEMs/TopoMaps	Chapters 13 & 2
		1-Sep	Tectonism & Volcanism/ Exercise 3: Minerals and Rocks **Quiz 1 (Materials from 23-Aug to 1-Sep)**	Chapters 13 & 14
FROM ABOVE: THE ATMOSPHERE	3	6-Sep	Composition & Vertical Structure of the Atmosphere	Chapters 3
		8-Sep	Earth's Motion Relative to the Sun; Solar and Terrestrial Radiation I/ Exercise 4: Earth - Sun Relations	Chapters 1 & 4
	4	13-Sep	Solar and Terrestrial Radiation II/ Exam Review	Chapter 2
		15-Sep	**Exam 1 (Everything from 23-Aug to 13-Sep)**	
	5	20-Sep	Global Energy Balance	Chapter 4
		22-Sep	Atmospheric Forces & Motion/Exercise 5: Air Pollution	Chapters 3 & 5
	6	27-Sep	General Circulation of the Atmosphere/Exercise 6: Tropical Cyclones	Chapter 5
		29-Sep	**Quiz 2 (Materials from 20-Sep to 29-Sep)** Atmosphere-Ocean Interactions/Exercise 7: El Niño	Chapter 5
	7	4-Oct	Moisture in the Atmosphere/ Exercise 8: Moisture and Humidity	Chapters 4 & 6
		6-Oct	Atmospheric Stability; Precipitation/ Exercise 9: Adiabatic Processes	Chapter 6
	8	11-Oct	Air Masses and Fronts; Midlatitude Cyclones; Clouds /Exercise 10: Weather Maps	Chapter 6 & 7
		13-Oct	NGA Presentation	Chapter 6
	9	18-Oct	Distribution of Climate Types I/Exercise 11: Climographs and Climate Distribution	Chapter 8
		20-Oct	**Exam 2 (Everything from 20-Sep to 18-Oct)**	
IN THE MIDDLE: AT THE EARTHS SURFACE	10	25- Oct	Air Masses and Fronts; Midlatitude Cyclones and Clouds; Exercise 10: Weather Maps	Chapter 7
		27-Oct	Climate Classification and Distribution/Exercise 11: Climographs	Chapters 10 & 11
	11	1-Nov	Climatic Variability	Chapter 10
		3-Nov	Biogeographic Processes; Terrestrial Flora: Description; Influences; Distribution	Chapter 12; Chapter 9
	12	8-Nov	Soil Profiles and Soil Forming Factors; Soil Distribution/ Exercise 12: Soil s; Erosional Slope Processes and Forms;	Chapter 15
		10-Nov	Weathering and Mast Wasting; **Quiz 3 (Materials from 25-Oct to 10-Nov)**	Chapter 15
	13	15 Nov	Hydrology/Exercise 13: Flood Probability	Chapters 17, 18 & 20
		17 Nov	Fluvial Processes and Landforms; Glacial Processes and Landforms	Chapters 17 & 19
	14	**24-26 Nov**	**Thanksgiving Break**	
	15	29-Nov - 1 Dec	Group Assignment Presentations; Course Review and Wrap – up/ Exam review	See assignment sheet
	16	6-Dec	**Exam 3 (Everything from 25-Oct to 1-Dec)**	