University of North Alabama

Department of Geography

GE 111 -Principles of Physical Geography (Weather and Climate)

Section 1 (CRN: 20897) – Spring 2013

Instructor: **Dr. Francis Koti**

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Office Hours: MW: 12-2:00PM; T: 1-2PM

Class meets: **MWF: 11-11:50AM in W 115** (Lab Meets T 2-3:50PM)

Required Text: Hess, D and D. Tasa. 2011. *McKnight's Physical Geography: a Landscape Appreciation* (10th Edition). Upper Saddle River (NJ): Prentice Hall. ISBN: 10: 032167734X; ISBN-13: 9780321677341 (MUST ALSO BUY ACCOMPANYING LAB MANUAL)

Recommended: Veregin, H. 2010. *Goode's World Atlas*. 22nd Ed. Chicago: Rand McNally and Company, Distributed by Pearson Prentice Hall.

Learning Outcomes: At the end of the semester, students should be able to:

1. Understand, analyze and make connections between various atmospheric and oceanic processes as they relate to observed global environmental changes, spatial patterns and distribution of earth phenomena.
2. Understand and explain the interrelationship between the four environmental spheres of the Earth – lithosphere, atmosphere, biosphere, and hydrosphere - and link these relationships to weather and climate.
3. Employ selected geographic methods to collect analyze and interpret weather data and present this data as a finished report based on the collected data.
4. Understand and interpret weather maps

Alabama Quality Teaching Standards (AQTS) for GE111			
Standard Code		**Standard Description**	**Assessment**
290-3-3-.21(1)(a)1.	Gain Knowledge of:	The physical and human characteristics of places	Pre and post-test; In-class Classroom Response System;
290-3-3-.21 (1)(a)4.		The physical processes that shape Earth's surface	Pre and post-test; In-class Classroom Response System;
290-3-3-.21 (1)(a)5.		The characteristics and spatial distribution of ecosystems on Earth's surface.	Pre and post-test; In-class Classroom Response System;
290-3-3-.21 (1)(b)8.	Demonstrate the ability to:	Ask geographic questions and to acquire, organize, and analyze geographic information to answer those questions as they engage in the study of substantive geographic content.	Weather Journal Exercise

Evaluation:

This is a 4-credit hour course. Grades will thus be determined by the sum of 3 percentages: Exams (45%); Quizzes (30%) and lab work (25%). Class work is material you learn in class through lectures and will be evaluated using nine (9) chapter-based quizzes and three main exams. Exams will constitute 45% of your term grade while quizzes will constitute 30% of your term grade. The quizzes will be taken online on the "Angel Learning System" (details to be given in class). Each quiz will comprise 20 multiple choice questions. After I complete a chapter, I will announce what dates and times the quiz will be available, usually a 48-hour window. The quizzes are timed and will be available for only a short time – SO PLEASE PAY ATTENTION TO QUIZ ANNOUNCEMENTS. I recommend that you go through your notes and course text thoroughly before you take a quiz. Please do not try to take the quiz as a group. First, that is not a good skill for taking a timed quiz and second, it will not help you much in following course material (which is their intended purpose). Further instructions on how to access the ANGEL system will be provided in class. The three major exams all carry equal weight (100 points) and will be taken in class. The lab exercises will constitute **25%** of the term grade. Grade points will be assigned as follows:

Section		Points	% of term grade		**Grading Scale**	
Exam 1	Chapter s: 1;2;3	100	45%		**%**	**Grade**
Exam 2	Chapters: 4;5;6	100			90-100	A
Exam 3	Chapters: 7;8;9	100			80-89	B
Quizzes	9 (20 item) chapter quizzes	180	30%		70-79	C
Lab work	21 labs	419	25%		60-69	D
Total			**100%**		**0-59**	**F**

NOTE: The course syllabus, grades, notes, news, quizzes, resources etc will be promptly posted on *Angel*.

Also note that:

1. There will be **NO** extra credit assignments. If you complete all the work on time, you should be quite satisfied with your grade.
2. The grades are NOT curved.
3. In my courses, borderline grades usually DO NOT translate to the next higher grade. However, students who demonstrate total effort by participating actively in class, turning in all assignments on time, and regularly attending class *magically* find their borderline grades shift to the next higher one. Put simply: Attitude counts in this class.

General Policies

1. Exams can be made up within **ONE WEEK** from the original exam date, unless (under extenuating circumstances) prior arrangements are made with me. Additionally, assay exam shall be written.
2. Exams and quizzes are multiple choice, matching, map, short answer, and true or false questions. You MUST bring to the exam your own **#2** pencil.
3. Students are responsible for maintaining academic integrity. You should therefore familiarize yourself with the academic honesty rules and repercussions in the UNA Student handbook.

Course Philosophy and Overview

Physical geography is an exciting subject! We deal with no less a topic than the world we live in, and how it works. We study the world from a broad perspective, examining each of the four global environmental spheres (atmosphere, hydrosphere, biosphere and lithosphere), with a special emphasis on how these environmental spheres are inter-related. For example, we study how the atmospheric circulation and ocean patterns determine climate patterns, and in turn, how climate patterns determine vegetation, and then how climate and vegetation influence soils. It is an inter-connected web!

It is important to be knowledgeable about how our planet works. Firstly, it is intellectually satisfying to know that our physical world is not just a random association of attributes. Secondly, understanding the diversity in the world environment helps us understand the human condition. Thirdly, it is of practical value to be able to read a map, predict the weather, or understand when the ocean might be seasonally cold (not necessarily in winter!) and thus not so good for a vacation spot. Fourthly, and possibly most important of all, humans are changing this planet at an unprecedented rate. Policy decisions made today will have a significant effect on your life long after those who are currently making those decisions have passed on.

In order to understand how the world works, you need to know the language of physical geography. Consequently, for exams and quizzes you must be familiar with definitions and facts outlined in the syllabus. But it is the understanding of the **principles** of geography that is at the core of this course. Consequently the main emphasis of exams and quizzes is on critical understanding. You should therefore expect questions that are a bit longer and more complicated than most multiple-choice questions. These are not "trick" questions - they are trying to test your ability to make connections between ideas.

ABSENCE POLICY: The University expects students to attend classes regularly and punctually and regards reasonable participation through attendance as integral to the award of credit. University regulations prescribe that students absent for any and all reasons for more than the equivalent of one fourth of scheduled class meetings may not receive credit for the course. In my courses, it is your responsibility to communicate with me within a reasonable period of time about missing a scheduled class. If you miss a scheduled class without communicating with me or offering sufficient explanation for the absence, a zero will be assessed for all work missed while you were absent. This penalty does not apply to excused absences. Please note that absence from class (excused or unexcused) is no grounds for exemption from assigned work (Please see Absence Regulations in the UNA Catalog.)

POLICY: In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, the University offers reasonable accommodations to students with eligible documented learning, physical and/or psychological disabilities. Under Title II of the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973, a disability is defined as a physical or mental impairment that substantially limits one or more major life activities as compared to an average person in the population. It is the responsibility of the student to contact Developmental Services prior to the beginning of the semester to initiate the accommodation process and to notify instructors within the first three class meetings to develop an accommodation plan. Appropriate, reasonable accommodations will be made to allow each student to meet course requirements, but no fundamental or substantial alteration of academic standards will be made. Students needing assistance should contact Developmental Services.

Course Outline

Week/Dates	Topic/Activity	Assigned reading/Chapter
1 01/09-01/11	Introduction: The subject matter of Geography; The Earth; Intro.,	Syllabus; Ch. 1
2 01/14-01/18	**MON 01/21/2013 MLK Jr. HOLIDAY** The Earth: Geographic Grid; Earth Movements; Seasons, Time	**NO SCHOOL** Ch. 1
3 01/21-01/25	Portraying the Earth: Intro. to maps; Map scale; Map projections; GIS, Remote Sensing, GPS	Ch. 2
4 01/28-02/1	Atmosphere – gaseous composition; Thermal structure of the atmosphere	Ch. 3
5 02/4-02/8	Human-induced atmospheric change: Ozone; **EXAM 1 – MON 02/4/2013**	Ch. 3 **EXAM 1: Ch. 1;2;**
6 02/11-02/15	Insolation and Temperature: Heating and cooling of atmosphere; Heat transfer **FRI 02/15/2013 – WINTER BREAK**	Ch. 4 **NO SCHOOL**
7 02/18-02/22	Global warming and greenhouse gases Atmospheric Pressure and Wind	Ch. ;4;5
8 02/25-03/1	Global Atmospheric Circulation Atmospheric moisture: Hydrologic cycle;	Ch. 5;6
9 03/4-03/8	Clouds; Atmospheric lifting **EXAM 2 – FRI 03/8/2013**	Ch. 6 **Exam 2: Ch. 3;4;5;**
10 03/11-03/15	Transient Atmospheric Flows and Disturbances: Weather Systems	Ch. 7
11 03/18-03/22	North American Weather: Mid-Latitude Cyclones and Anticyclones Tropical Weather	Ch.7
12 **03/25-03/29**	**SPRING BREAK** **NO SCHOOL**	**SPRING BREAK** **NO SCHOOL**
13 04/1-04/5	World Climatic Zones and Types – Groups A-C	Chapter 8
14 **04/8-04/12**	**AAG WEEK**	**AAG WEEK**
15 04/15-04/19	World Climates: Types and Zones: Groups D-H	Ch. 8
16 04/22-04/26	Hydrosphere: Ocean Water;	Ch 9
17 04/29-05/1	Hydrosphere: Fresh water 05/2/2013 STUDY DAY - NO CLASS	Ch. 9 STUDY DAY - NO CLASS
17 **05/7/2013**	**FINAL EXAM** **TUESDAY May 7, 2012 – 10:15-Noon**	**Final Exam will cover** **Chs. 6;7;8;9**

Note: This outline is only a guide, deviations, while not guaranteed, may be inevitable.