Geography 103.001 MWF Physical Geography
Course Syllabus Spring 2005
Dr. Craig Caupp

Departmental Course Syllabus
Physical Geography
Geography 103

I. Catalog Description

Geog 103 Physical Geography. 4 credits. Earth-sun relations, map reading and interpretation, landforms, elements of weather and climate, climatic regions. Three hours of lecture and one two-hour lab period per week. Every term. NAT SCI.

II. Major Objectives
At the conclusion of the course, all students should be able to:

- A. Explain scientific concepts, laws, or principles relating to physical geography and be able to demonstrate an understanding of the basic differences between scientific and non-scientific knowledge.

  Specific outcomes include:
  1. Describe the concepts and interrelationships between continental drift, plate tectonics, and sea-floor spreading.
  2. Describe and explain principles of rock mechanics.
  3. Identify and distinguish between the processes of physical and chemical weathering.
  4. Describe and explain the Laws of Drainage composition.
  5. Identify processes operating in the fluvial, glacial, and shoreline environments.
  6. Explain the concept of dynamic equilibrium.
  7. Explain models of landform development.
  8. Apply concepts of energy to explain distributions of temperature, pressure, wind, and moisture.
  9. Explain and use concepts of the adiabatic process to solve problems and explain weather variations.
  10. Apply concepts of atmospheric physics to explain global climatic patterns.
  11. Relate the concept of index species to climatic distributions.
  12. Discuss aspects of climatic change.

- B. Use the language of science to describe physical events and be familiar with the basic assumptions of science.

  Specific outcomes include:
  1. Distinguish between tensional and compressional landforms.
  2. Describe volcanic activity related to ejecta, plate tectonic activities, and related features.
  3. Identify structural landforms.
  4. Identify erosional and depositional landforms.
  5. Relate climatic controls to landform evolution.
  6. Deduce relationships between processes, features, and process-responses and be familiar with the basic assumptions of the scientific perspective.

7. Be aware of the limitations of the scientific approach to knowledge.
8. Identify and explain different types of temperature curves.
9. Explain vertical and horizontal distributions of temperatures.
10. Distinguish between thermal and dynamic pressure cells.
11. Distinguish between global and local wind systems.
12. Distinguish between tropical and extra-tropical storm systems.
13. Distinguish between weather and climate.
14. Identify climatic controls, patterns, and distributions.

- C. Use the language of science to describe technology and be aware that critics view the modern scientific perspective as restrictive and in need of substantial critical review.

  Specific outcomes include:
  1. Know, use, and /or refer to measurement devices, such as the Moh's and Richter scales, barometers, etc.
  2. Be able to interpret graphical and numeric data including scale, volumes, rate, and time.
  3. Be able to discern between useful and irrelevant information in problem-solving.
  4. Be able to recognize environmental hazards and constraints directly and through inference.

- D. Use laboratory equipment and procedures to investigate the natural world.

  Specific outcomes will include:
  1. Use petrologic methods to distinguish between minerals and rocks.
  2. Use petrologic methods to identify major rock categories.
  3. Make inference concerning rock types and formative environments.
  4. Be able to represent the earth's surface:
     a) Read and interpret topographic maps and profiles
     b) Read and interpret aerial photographs.
     c) Make scale conversions.
     d) Interpret township and ranges surveys.
  5. Be able to assess magnitude through "ordering."
  6. Be able to interpret topographic maps.
  7. Be able to use and know the limitations of a cartographic data base.
  8. Be able to interrelate time and distance.
  9. Be able to interrelate latitude and sun angle.
  10. Read and interpret weather data and station models.
  11. Use and manipulate data in several media both to extract and to present information.

Text

Tom L. McKnight, Physical Geography A landscape Appreciation 7th edition Prentice Hall

Class Format

Geography 103 will employ primarily a lecture format. Time for discussion will be provided, and questions are encouraged at any time.

COURSE EXAMINATIONS:

The exams include questions from your text readings, lecture notes, and lab exercises. Types of questions include multiple choice, matching, fill-in-blank, short answer essay, locations on maps, and working with drawings.

Grades -- determined by total points accumulated:

Exam	1	95	A = 450 or more
	2	95	B = 400 to 449
	3	95	C = 350 to 399
Lab		95	D = 300 to 349
Final		120	F = 399 and below
		500	

FINAL EXAMINATION Comprehensive May 18, 8:00 AM–10:30 (section 1)

Attendance Policy

Attendance is required at all scheduled class periods. Roll will be taken at the beginning of each class. If a student arrives late, it is his/her responsibility to check with the instructor at the end of the class period to ensure that he/she is not marked absent. Absences during exams must be cleared in advance and are permissible only under highly unusual, well documented circumstances.

NO ABSENCES for semester = 5 bonus points; 1-3 ABSENCES = no bonus; 4-6 **ABSENCES 1 letter grade deduction for course grade; 7 or more** ABSENCES = 2 letter grade deduction for course grade.

Office **GU 205 (ext. 4755)** Hours, M, 2-3, 4-5, T 3-4,Wed 12:00- 1:00, F 2 - 3

Academic Dishonesty is defined to include giving or receiving aid on exams, any form of cheating, or plagiarism. Students found guilty of academic dishonesty will receive an automatic course grade of "**F**" and will be referred to the Campus Judicial System. For a discussion of Academic Dishonesty refer to statement in the PATHFINDER.

Disruption of class or any behavior in class which interferes with an effective learning environment will not be tolerated, and will result in expulsion from the classroom. Please consult the Pathfinder

IN CASE OF FIRE in the building all students are instructed to evacuate the premises as quickly and as orderly as possible. Pay particular attention to any special directions given by the instructor.

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Tentative Course Schedule

Week	Date	Chapters	Topics
		McKnight	
	Jan 26		Introduction
1	28	1 2 3	Earth-sun and time, Atmosphere2
2	31		
	Feb 2,4	4	Isolation and Temperature
3	7,9,11	5	Atmospheric Pressure and Wind
			Review
4	14		Exam 1
	16,18	6	Amospheric Moisture
5	21,23,25		
		7	Transient Atmospheric Flows and disturbances
6	28,Mar 2,4	8	Climates
7	7,9,11		Review
8	14		Exam 2
	16,18	13 14	Landforms, Rocks and Minerals
9	28,30		Internal Process, Plate Tectonics
	Apr 1	14	
10	4,6,8	14	Vulcanism
			Folding and Faulting
11	11,13,15	15	Weathering and Mass Wasting
			Review
12	18		Exam 3
	20,22	16	Fluvial Processes
13	25,27,29	19	Glacial Modification
14	May 2,4,6	20,17,18	Shorelines
15	9,11		Karst and Arid lands