The Water Planet

GEOG 1250, sec. 004

Fall 2010

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Office Hours: As posted, or by appointment

Course Description: Water has the paradox of being the most abundant and most precious natural resource on the planet. The purpose of this course is to explore the importance of water in environmental systems and interactions between humans and the Earth’s water resources. We will examine the fundamental processes and interrelationships that characterize water in different environments and the human activities that lead to water resource problems. This course fulfills a General Education Social Science requirement.

Course Objectives: By the end of this course, you will be able to:

- Explain what makes water so unique as a substance and essential for life on our planet
- Demonstrate knowledge of the fundamental processes associated with water in the atmosphere, rivers, oceans, glaciers, groundwater, and biosphere
- Demonstrate an understanding of important water resource issues and how humans manipulate and use water

Optional Texts: The following online textbooks (all optional) can be found on Blackboard under “Online Readings”:

- Pidwirny, Fundamentals of Physical Geography
- Ritter, The Physical Environment: an Introduction to Physical Geography

Lecture Notes: The course is primarily conducted in a lecture format supplemented with pertinent videos. PowerPoint lectures and study guides for the exams can be accessed from Blackboard. I suggest that you print out the lectures (print as “Handouts”) before class so that you can take notes on my discussion of each slide rather than writing down what is already on the slide. Making the lectures available like this may tempt some to avoid coming to class. Resist this temptation! I will discuss material that does not appear on the PowerPoint slides, but will appear on the exams!

Attendance: Although I will not take formal attendance, attendance is essential. You are not likely to do well in this class if you do not attend regularly.

Graded Work: Your course grade will be based on three mid-term exams and a final exam. The lowest of the first three mid-term exam scores will be dropped and the remaining two will be averaged with the final exam. The final exam, however, is REQUIRED in order to pass the course and MAY NOT BE Dropped. Each of the exams will be worth 1/3 of your course grade. Because one of the three mid-term exams will be dropped, you may choose to be absent on one of those days or you may take all three (this is recommended). If you miss an exam for whatever reason, you should consider that your dropped
grade. Each exam, including the final exam, will stress the material covered in lecture since the previous exam. The final exam will be taken during the scheduled final exam period. No make-up exams will be given except in cases where proof of an emergency is provided in writing to the instructor. Acceptable excuses included serious illness of the student, illness or death of an immediate family member, approved university travel, or observance of a major religious holiday. There is **NO EXTRA CREDIT WORK.**

**Getting Help:** If you need help with the coursework, please come to my office hours or see me after class or email me to make an appointment. It is always best to seek help as soon as difficulties arise.

**Classroom Behavior:** You have a vested (i.e., you paid $!) interest in maintaining a positive learning environment for yourself and those around you. As such, please refrain from disruptive classroom behavior such as arriving late to class, leaving early from class, talking to classmates during lectures, reading the newspaper, sleeping, or using your cell phone (turn off or put on vibrate mode) or other electronic devices. In particular, once class begins, **NO TEXTING** is permitted.

**Academic Integrity:** Academic integrity is essential to the mission of ECU. As such, all students are expected to uphold the honor code of the university. Activities such as plagiarism or cheating on exams will result in an “F” grade and may result in suspension or dismissal from school.

**Americans with Disabilities Act:** East Carolina University seeks to comply fully with the Americans with Disabilities Act (ADA). Students requesting accommodations based on a disability must be registered with the Department for Disability Support Services located in Slay 138 (252) 737-1016 (Voice/TTY).

**Course Outline**

**Introduction: Water Basics**
- Water in our solar system
- Unique properties
- Hydrologic cycle

**Water in the Atmosphere**
- Composition, energy, humidity, uplift
- Condensation and precipitation
- Frontal storms, hurricanes
- Climate change

**Water on the Land**
- Watersheds and rivers
- Floods
- Glaciers
- Lakes

**Water in the Oceans**
- Plate tectonics
- Properties of sea water
- Currents, waves, & tides

- Coastal landforms
- Coral reefs

**Water and the Biosphere**
- Vegetation characteristics
- Factors influencing vegetation
- Biomes

**Water in the Ground**
- Groundwater flow
- Overdraft and contamination
- Karst

**Water Quality**
- Major water pollutants

**Water Use**
- Water use by sector
- Dams & reservoirs
- Interbasin transfers
- Conservation