Class Location and Time: TBD
Instructor Information: Office: CP-347; Email: datwood@uky.edu; Tel: 859-257-7304
Office Hours: At least one hour following each class period and time on alternate days
Blackboard Website: TBD

I. Course Description

This course will provide an introduction to the natural science and policy aspects of global environmental problems. This will include various aspects of ecology, ecosystems, agriculture, biodiversity and endangered species, water and mineral resources, nonrenewable and renewable energy sources. It will be demonstrated that sustainable governmental policies must begin with an understanding of the basic science underlying each of these subjects.

A key feature of this course is the use of Active Learning rather than Passive Learning. Passive learning is where you sit quietly and have the material presented to you in its entirety by an instructor, usually with a PowerPoint presentation. In contrast, Active Learning integrates you directly into the teaching process and requires that you take personal responsibility to learn the course material. Active Learning is based on the recognition that learning is largely a communal experience; that it requires and benefits from the participation of each student and the instructor. A quote from The Courage to Teach by Parker Palmer (1998) describes the pedagogical principle that is the foundation of this course:

“If the aim of a course is to deliver a great deal of information, the worst way to do it is by nonstop lecturing. The human brain is simply not good at retaining armies of facts as they march single-file through a lecture laden with information. Facts are far better delivered via texts or electronic formats, where students can do with them what the brain requires: look at them once, look at them again, and check them once more, then massage them, correlate them, and apply them.”

Active Learning and a strengthening of your critical thinking skills will be incorporated into the course with thought-provoking critical thinking review questions at the end of each textbook chapter and our associated discussions in class. This will require substantial effort from both of us. I will not simply present the material with a routine PowerPoint presentation. Rather, I will expect for you to have completed the assigned online quizzes so that I can respond to your questions to address the topics that need clarification or are of general or specific interest. An ideal day in the class would be for us to spend the entire time discussing the material and referring to my PowerPoint slides only for clarification.
My expectation is that you will spend at least ten (10) hours studying the course material each week and that you participate in the classroom discussions by asking questions, noting interesting details about the subject we are covering or making real-world connections.

II. Student Learning Outcomes:
Upon completion of this course students will be able to:
A. Understand basic ecological theory from a scientific perspective.
B. Explain why ecosystems and biodiversity must be protected.
C. Understand the extent and limitations of the world’s natural and mineral resources.
D. Have a working knowledge of research methods in the natural sciences and policy development.
E. Explain the reasons for existing environmental problems.
F. Understand sustainable approaches and strategies to solve existing environmental problems.

III. E-Mail Capability
You must have a UK U-Connect e-mail account so that I can communicate with you throughout the semester. This may take place through Blackboard or through group or individual email messages. You can obtain your email account on-line at any student computing laboratory on campus. You are responsible for checking your e-mail on a regular basis. A communication from me through e-mail will be considered the same as one delivered orally or in writing in class. That is, you are expected to have read what has been transmitted by e-mail and taken the necessary action.

IV. Blackboard Website
A. Online Quizzes and Examinations
The sixteen (16) online quizzes and three examinations will be conducted electronically through Blackboard. The online quizzes must be taken before the class meets to begin each new chapter.
B. Powerpoint Presentations.
The instructor will convert the presentations used in class into a pdf file that is in color and a pdf file that is formatted for printing. You could print these out before class to use for taking notes, or you could bring a computer and make notes on the color slides.
C. Articles and Publications
Important and interesting background information will be available on the Blackboard website. These will be newspaper or journal articles about current events or additional information about the subjects covered in class.

V. Class Policies
A. Attendance
1. Attendance is required. Excused absences are given only: a) with presentation of a valid medical or emergency excuse, in writing (written by a medical doctor), b) with a death in the family (copy of the obituary required), or c) by pre-arrangement with the professor. After two unexcused absences from class a student's grade will drop by 2% points per absence.
2. Arrival 10 minutes or more after the start of discussion section constitutes an absence. Departure 10 minutes before the end of discussion section constitutes an absence.

3. Students anticipating absence for a major religious holiday during the fall semester must notify me in writing or email prior to the last day for adding classes. The acceptable religious holidays that are considered excused absences are listed in the Interfaith Calendar (http://www.interfaithcalendar.org/2012.htm). Additional information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (jkarnes@email.uky.edu, 257-2754).

4. If you are going to be absent from class due to a university activity you must have your travel/absence schedule approved by the professor. You must present a written schedule of anticipated absences. This schedule must identify the specific dates you will be absent and must also give a phone number for the coordinator responsible for your schedule. If you anticipate missing more than four class meetings during the semester you should withdraw from the course this semester and take the course at a time when it does not conflict with your extracurricular activities.

5. After eight (8) total absences (excused and unexcused), you will receive a failing grade in the course.

B. Make-up exams
A student must have an excused absence to take a make-up quiz or examination. Excused absences are given only: a) with presentation of a VALID MEDICAL or EMERGENCY excuse, IN WRITING (written by a medical doctor), b) with a death in the family (copy of the obituary required), or c) by pre-arrangement with the professor. Any other failure to take a quiz when it is scheduled will result in no credit for the quiz (0%). If you do have an excused absence and need to make up a quiz, you must make arrangements with your TA to take the makeup within a week of the quiz date.

C. Late Assignments
The due dates for the online quizzes and examinations are listed in the schedule. Unless a student has an excused absence (see above), the instructor will not accept late assignments. If you have a problem completing your assignment on time, you need to communicate with your instructor immediately. If your assignment is not accepted because it is late, you will receive 0 (zero) points for the assignment. If you do not turn in an assignment you will receive 0 (zero) points.

D. Academic Offenses
Cheating on examinations and submitting someone else’s work as your own constitute serious academic offenses that could result in having you expelled from the University. Cheating includes copying or "borrowing" answers from others on quizzes, citing others’ work as your own in essays, and plagiarizing or taking material verbatim from texts, lectures, and articles (including anything from web-sites) without proper citation of the author(s). The revised Senate Rules in regard to penalties for academic offences became effective with the fall 2006 semester. A summary of these changes may be found at the Ombud Web site, http://www.uky.edu/Ombud. The entire set of relevant Senate Rules can be found at
All work must be the original product of your own efforts, and all materials quoted from others must be properly credited. This applies to written documents and presentations. A link to an article: "Plagiarism: What is it?" may be found at: [http://www.uky.edu/Ombud/Plagiarism.pdf](http://www.uky.edu/Ombud/Plagiarism.pdf). This site also includes a link to "Understanding Plagiarism": [http://wps.prenhall.com/hss_understand_plagiarism_1/0,6622,427064,-00.html](http://wps.prenhall.com/hss_understand_plagiarism_1/0,6622,427064,-00.html). All such incidents will be handled according to University policy as outlined in the University Senate Rules and Student Rights and Responsibilities. The minimum punishment for cheating or plagiarism is an “E” in the course. This is University Policy.

**E. Classroom Civility and Decorum**

The university, college and program have a commitment to respect the dignity of all and to value differences among members of our academic community. There exists the role of discussion and debate in academic discovery and the right of all to respectfully disagree from time-to-time. Students clearly have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students (S.R. 6.1.2). Equally, a faculty member has the right, and the responsibility, to ensure that all academic discourse occurs in a context characterized by respect and civility. Obviously, the accepted level of civility would not include attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin or other such irrelevant factors.

**F. Academic Accommodations Due to Disability**

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide the instructor with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

**VI. Grading**

**A. Critical Thinking and Concept Review Questions**

These questions are located at the end of each chapter. They are designed to help you understand the chapter information and develop your critical thinking skills. The Review Questions must be submitted at the beginning of the first class that a chapter is scheduled to be discussed (see Schedule below). Completing the questions will prepare you to actively engage in the discussion of the chapter content. Each set of Review Questions is worth 20 points. Review Questions not turned in the first day a chapter is covered can be submitted at the next class meeting for a maximum of 10 points. For excused absences the Review Questions must be submitted at the next class meeting in order to obtain full credit.

**B. Examinations**

There will be three examinations, two during the semester and a cumulative final examination. Each exam will count 100 pts. There will not be a “scale” or “curve” applied to the final grades. I will write the exams with the expectation that the class average will be at least 80 pts (out of 100 pts
possible). Make-up exams will be given if the regularly scheduled exam is missed for excused absences. The make-up exam will not be the same as the one given in class.

C. Final Grades
The final letter grade for the course will be based on the combined points for the quizzes and examinations. Grade assignments: A (> 90%), B (89-80%), C (79-70%), D (69-60%), E (< 60%).

Online Quizzes (16 @ 10 points each) 160 pts
Two Examinations (100 points each) 200 pts
Final Examination 100 pts
Total = 460 pts

VII. Semester Schedule

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<th>Chapter Title</th>
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<td>Environmental Science, Sustainability, and Critical Thinking</td>
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<td>Environmental Protection and Sustainability (ENS 201 Review)</td>
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<td>3.</td>
<td>3</td>
<td>Understanding the Root Causes of the Environmental Crisis (ENS 201 Review)</td>
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<td>Principles of Ecology: How Ecosystems Work</td>
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<td><strong>First Examination</strong></td>
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<td>Principles of Ecology: Biomes and Aquatic Life Zones</td>
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<td>Principles of Ecology: Self-Sustaining Mechanisms in Ecosystems</td>
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<td>Creating a Sustainable System of Agriculture to Feed the World’s People</td>
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<td>Preserving Biological Diversity</td>
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<td>Grasslands, Forest, and Wilderness: Sustainable Management Strategies</td>
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<td>10.</td>
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<td>Water Resources: Preserving Our Liquid Assets and Protecting Aquatic Ecosystems</td>
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<td><strong>Second Examination</strong></td>
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<td>Nonrenewable Energy Sources</td>
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<td>The Earth and Its Mineral Resources</td>
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<td>Principles of Toxicology and Risk Assessment</td>
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<td>Global Air Pollution: Ozone Depletion, Acid Deposition, and Global Climate Change</td>
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<td>16.</td>
<td>27</td>
<td>Law, Government, and Society</td>
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<td>17.</td>
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<td><strong>Final Examination</strong></td>
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