

Environmental Biology (Biology 263)
Syllabus for Summer, 2013
Universidad de Louisville/Quality Leadership University
Calle 46, Bella Vista
Panama City, Panama
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Instructor: Karen Barnett, MS, MAT

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Class Schedule:

The class meets Mon. thru Fri. from 8am to 11:45am. The first meeting is May 27th and the final exam is on Friday, May 7th.

1 field trip is scheduled. A late morning charla at the Biodiversity Museum is required.

Required Textbook:

Miller, G. Tyler, Jr. and S. Spoolman. Living in the Environment, Principles, Connections, and Solutions. 17th edition. Thomson, Brooks/Cole, 2012

Course description and organization:

Welcome to Environmental Biology. Our focus will be on the basic principles of environmental biology, ecology, and the relationship between humans and the natural world. This is a course in biology for non-majors, therefore our discussion will begin broadly, but by the end of the course we hope you will understand and appreciate the natural forces that generate and maintain the diversity of life we see on our planet, as well as the myriad interactions among both biotic and abiotic components of ecosystems. We also hope you will be able to objectively assess the role that humans have played in changing the natural environment, especially during the last few centuries.

Course Objectives:

Upon successful completion of this course, the student should have a basic understanding of:

- 1) The scientific method (true and false hypotheses, theories, variables, controls, experiments, deduction and induction);
- 2) The basic description of the diversity of life on the planet (plants, bacteria, fungi and animals);
- 3) This course focuses on the relationships between humans and the environment.
- 4) Evolution: population genetics, forces that cause micro-evolution, speciation, phylogeny, taxonomy and classification;
- 5) The interactions between organisms and their environments, population growth, community interactions, and ecology.
- 6) Global warming, sustainability and other “in the news” items will be discussed.

The goal is to better understand the biological principles of environmental effects on living organisms with emphasis on the ecological relationships of man, resource exploitation, pollution, environmental degradation, and the social problems that human use (and misuse) of the environment create.

Field trip to the Biodiversity Museum will be on May 31st, at 10:30 am and is a requirement.

Method of Evaluation:

1 exam – 75%

Class participation, attendance – 25%

Grading Policy;

Letter grades for the course will be determined entirely from the scores on the exams and the laboratory assignments. The maximum percentage cutoffs for letter grades A/A-/B+/B/B-/C+/C/C-/D+/D/D- are 93/90/87/83/80/77/73/70/67/63/60% respectively, of the total points. These cutoff points will be raised or lowered at my discretion.

Attendance is mandatory.

Attendance will be taken during class. All classes start at 8am, so please be punctual. Students are responsible for attending at least 80% of the scheduled classes in order to have the right to receive a grade.

You will find that attendance is necessary because some of the material covered in the lecture may not be found in the textbook. The textbook reading will help elucidate the material and provide additional information to answers seen in the learning objectives. If any discrepancies arise between the lecture and the textbook material, the lecture material is the correct source of information.

All students are expected to read and abide by the policies concerning academic honesty and student misconduct as described in the class catalog.

If you are auditing the course, you must attend lectures, labs and take the exams. If you are taking the course pass/fail, you must pass the course to receive a passing grade.

Caveat Emptor: warning!

Previous students have found this course to be simultaneously interesting, intense, and tedious. We cover a large amount of information because of the introductory nature of the course. In order to understand larger, critical concepts and ideas (such as natural selection) you must have sufficient facts and data memorized. If you don't keep up with the readings and diligently work with me to understand the concepts, you will have missed an opportunity to gain a greater understanding of what it means to be human and a deeper comprehension of Humanity's place in nature.

Classroom Code of Conduct

The very nature of this course incorporates controversial and sensitive topics for study. Because of this, I expect professional behavior in both the classroom and in the field. If your behavior hinders the education of the class you will be asked to stop once; then you will be removed from the class for the remainder of the lecture. If the disruptive behavior continues, I will ask UofL to permanently remove you from the class. You are not asked to accept or agree with every idea or point of view presented in the course. However, you are asked to be open and respectful of other's opinions. There are some behaviors that are conducive to creating a productive learning environment; therefore, the following rules will always be in effect during this class:

- Students will arrive to class on time and remain for its entirety.
- Students will turn cell phones, beepers and personal sound equipment to silent prior to entering class or lab.
- Students are expected to contribute to class discussions or remain quiet. Personal conversations are disruptive to others.
- Students are expected to be respectful of other opinions, even if they differ from yours.
- Students will refrain from disorderly, lewd, or obscene language, gestures, and conduct.

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Date	Topic	Chapter	Pages
May 27	Humans & Sustainability Science, Ecological Principles	1 & 2	5- 51
28	Ecosystems Biodiversity & Evolution	3 & 4	54-101
29	Biodiversity, Species Interactions and Human Population Movie – Fern Gully	5 & 6	104-144
30	Climate & Biodiversity, terrestrial and aquatic movie – End of the Line	7 & 8	147-187
31	Sustaining Biodiversity And a visit to the Biomuseo	9	190-214
June 3	Sustaining Terrestrial and Aquatic Biodiversity Guest speaker- Jennifer Simpson	10 & 11	217-274
4	Food, Soil & Pest Management Movie on GMO's	12	277-314
5	Climate Disruption and Global Warming Movie – An Inconvenient Truth Guest Speaker – Michele Elela	19	492-517
6	Environmental Hazards and Human Health	17	436-462
7	Environmental World Views, Ethics	25	
Review & Exam			