

CEDAR CREST COLLEGE  
**BIO 111: CONCEPTS IN ECOLOGY AND ENVIRONMENTAL ISSUES**  
**“ENVIRONMENTAL LITERACY AT HAWK MOUNTAIN SANCTUARY”**  
**SUMMER 2010**

**INSTRUCTOR INFORMATION**

John O. Drummond, Adjunct Instructor, Dept. of Biological Sciences  
29 Miller; Office hours by appointment only  
610-330-5912  
[drummoni@lafayette.edu](mailto:drummoni@lafayette.edu) or [jodrummo@cedarcrest.edu](mailto:jodrummo@cedarcrest.edu)

**GENERAL COURSE INFORMATION**

- I. Course Description from *Cedar Crest College Catalog*: BIO 111 Concepts in Ecology and Environmental Issues (4 credits) “Contemporary environmental concerns on global, national and local levels are examined to increase awareness and scientific literacy and to promote stewardship in the understanding of their impact and application to human existence. In order to understand these environmental concerns it is important to study the nature of our non-renewable and renewable resources and the relationships of organisms to one another and to their environment. (Not accepted as credit toward a Biological Sciences major.)” The course focuses on consideration of basic concepts in ecology and conservation in field settings in order to increase awareness, understanding, and appreciation of environmental issues. The course will consist of an orientation session and four full weekends of lecture and laboratory/field exercises in the summer.
- II. Website for Bio 111 Lecture: [www.jdrummond.pageout.net](http://www.jdrummond.pageout.net). You **must register** at the PageOut Bio 111 course website. Please follow Student Registration instructions. Because information important to the class will be posted on the website, if you do not have easy access to a computer, it will be expected that you obtain a Cedar Crest College account. Further information will be given in class as the semester continues. Schedule changes, weekend descriptions, lecture notes, grades, suggestions, discussion room, and additional resources can be found there.
- III. The required textbook: *Environment*, 7<sup>th</sup> ed., by Raven and Berg is available in the bookstore. You do not need the Bio 111 lab manual. Handouts given in class should be considered required reading.
- IV. Format and Instruction – the outline of the course content with corresponding weekends follows below. *Assigned readings should be completed prior to the start of class.*

**Weekend One: June 4, 5, & 6**

*Classroom content:*

Introduction and Orientation, Biological Communities, Species Interactions

*Field Activities:*

Hike to North Lookout

Forest Walk and consideration of the principles of biological communities and species interactions using the Appalachian Mountain ridge-top and valley-floor forest communities.

*Assignments in Text:*

Chapters 1, 2, 3, and 4

*Evaluation:*

Field Lab Reports

Article Reviews

**Weekend Two: June 18, 19, & 20**

*Classroom content:*

Biological Communities (Continued), Kinds of Ecosystems

*Field Activities:*

Hike to Owl's Head

Field Exam around Center

*Assignments in Text:*

Chapters 5, 6, and 17

*Evaluation:*

Field Lab Report

Field Practical Exam

**Weekend Three: July 9, 10, & 11**

*Classroom content:*

Populations

*Field Activities:*

Red-backed salamander census, Insect population study, Vegetation study

Hike to River of Rocks

*Assignments in Text:*

Chapters 8 and 9

Evaluation:

Field Lab Reports

**Weekend Four: July 23, 24, & 25**

Classroom content:

Atmospheric Science  
Air Pollution  
Global Climate Change  
Water  
Water Pollution

Field Activities:

Acopian Center  
Appalachian Trail Hike

Assignments in Text:

Chapter 7, (20 & 21), (14 & 22)

Evaluation:

Field Lab Reports  
Field Practical Exam

- V. Course Objectives – By the end of this course, through participation in and completion of all lectures, labs, exams, and other assignments the students will be able to:
- recognize their connection to the environment
  - recognize their impact on the environment
  - describe their personal environmental ethic
  - describe connections between their major (profession) and the environment
  - describe how, in their major (or profession) they can positively or negatively impact the environment
  - identify major components of the environment
  - recognize and describe interactions within the abiotic and biotic components of the environment
  - describe the interactions, both positive and negative, between the environment and populations, economics, policy, and health
  - list food, land, and biological resources and threats to each of these resources from human consumption
  - list physical resources and threats to these resources from human consumption
  - describe what society can do to live more harmoniously with their environment

## **COURSE OUTCOMES AND ASSESSMENT**

**Course Outcome:** Students will demonstrate the ability to communicate clearly their connection to, and their impact on the environment, both orally and through the written word.

*Assessment:* Students will complete essay exam questions. Students will read and react to current articles related to human impact on the environment. Students will actively participate in oral group projects.

**Course Outcome:** Students will demonstrate the ability to understand and articulate the foundations of their own environmental ethic and values, as well as understand the environmental value systems of others.

*Assessment:* Students will complete objective and essay exam questions.

**Course Outcome:** Students will demonstrate technological competency and information literacy by describing connections between their major (profession) and the environment.

*Assessment:* Students will complete essay and objective exam questions. Students will also complete web assignments.

**Course Outcome:** Students will demonstrate the ability to evaluate technological and informational resources and use them appropriately by describing how, in their major (or profession) they can positively or negatively impact the environment

*Assessment:* Students will complete essay and objective exam questions. Students will also complete web assignments.

**Course Outcome:** Students will identify major components of the environment and recognize and describe interactions within the abiotic and biotic components of the environment to demonstrate their ability to engage in critical analysis and qualitative reasoning.

*Assessment:* Students will complete objective and essay exam questions.

**Course Outcome:** Students will demonstrate the ability to engage in scientific and quantitative reasoning by describing the interactions, both positive and negative, between the environment and populations, economics, policy, and health; listing food, land, and biological resources and threats to each of these resources from human consumption; and listing physical resources and threats to these resources from human consumption.

*Assessment:* Students will complete objective and essay exam questions. Students will read and react to current articles related to human impact on the environment.

**Course Outcome:** Students will demonstrate the ability to understand and respond to current environmental issues of local, national, and global significance.

*Assessment:* Students will complete objective and essay exam questions. Students will read and react to current articles related to human impact on the environment.

## STUDENT ASSESSMENT AND EVALUATION

For purposes of evaluation, the four weekends of the course will be weighted evenly. The average of the four weekends will be calculated and the final course grade will be assigned as follows:

92.5 - 100, A  
89.5 - 92.4, A-  
86.5 - 89.4, B+  
82.5 - 86.4, B  
79.5 - 82.4, B  
76.5 - 79.4, C+  
72.5 - 76.4, C  
69.5 - 72.4, C-  
66.5 - 69.4, D+  
59.5 - 66.4, D  
< 59.5, F

Assignments not submitted will be assigned a zero. In case of late submission of assignments, the grade will be lowered by 5 percentage points for each day that the assignment is late.

## STUDENT RESPONSIBILITIES

- I. Attendance and Absence: Absence requires the completion of an excusal form if consideration is to be given to “making-up” missed work. Extended absences will require special consideration. If you will be absent on ANY day, I must be given notice PRIOR to the start of class.

If the absence occurs on a testing day, I must be notified of the absence (leave a message) PRIOR to the start of class if consideration is to be given for makeup. If the absence is approved by the Dean’s office, the student may be given the opportunity to take the test within one week.

- II. Classroom Protocol: Appropriate classroom behavior is implicit in the Cedar Crest College Honor Code. Such behavior is defined and guided by complete protection of the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations, and any other behaviors that might disrupt instruction and/or compromise students’ access to their Cedar Crest College education.

- III. Community Standards for Academic Conduct: Academic integrity and ethics remain steadfast, withstanding technological change. Cedar Crest College academic standards therefore apply to all academic work, including, but not limited to, handwritten or computer-generated documents, video or audio recordings, and telecommunications.

As a student at Cedar Crest College, each student shall:

- a. Only submit work which is his/her own.
- b. Adhere to the rules of acknowledging outside sources, as defined by the instructor, never plagiarizing or misrepresenting intellectual property.
- c. Neither seek nor receive aid from another student, converse with one another when inappropriate, nor use materials not authorized by the instructor.
- d. Follow the instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using College facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.
- e. Abide by the Cedar Crest Computer Use Policy.
- f. If a student perceives a violation of the Academic Standards, he/she will go to their instructor.
- g. If you are unable to resolve the problem with the instructor, you should go to the chair of the department. If you need further assistance after consultation with the instructor and the chair, you should see the Provost

- IV. Learning Styles and Abilities: Each student has different needs and methods for learning. Individual abilities will guide students through the semester at different rates... and that is ok! Thankfully we are all different. Let me know if you are afraid you are falling behind or feel like you are overwhelmed. Don't let things get worse!

Students with documented disabilities who may need academic accommodations should discuss these needs with their professors during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the Advising Center.

- V. Teaching Philosophy: My goal is to make this a participatory class. I invite your input and comments. There are so many issues this session that lend to great discussion.

I also want you feel free to come to me with your questions, comments, and concerns. Please feel free to contact me at any time.