Introduction to Environmental Science: EVR 1001

Fall 2017

Office Hours:	Monday: 1:30-2:30 PM; Thursday10 – 11 AM or by appointment
Instructor Contact Information	Dr. Patrick Bohlen Patrick.Bohlen@ucf.edu 407-823-1940 (office) Jennifer Elliott Jennifer.Elliott@ucf.edu 407-823-4702 (Office) Arboretum Office (Trailer 525)
TA Contact Information	Amanda Lindsay Amanda.Lindsay@ucf.edu Facilities & Safety (117B)
Websites	*www.green.ucf.edu*, *www.arboretum.ucf.edu*

Syllabus subject to change

Course Description:

This course examines scientific foundations needed for understanding the earth's environmental systems and human impacts on the environment. Topics include: basic ecology, human population growth and world hunger, land and water resources, energy resources, water and air pollution, biodiversity conservation, global climate change, and sustainability.

Course Requirements:

This course will require participation both in class and out of class. The course will include lectures, chapter review quizzes, and a mid-term and final examination. Students are expected to be respectful to instructors and their fellow students, and behave in an adult and professional manner.

General Education Learning Objectives:

This course contributes UCF's general education program (GEP) science foundation learning objectives. At the completion of the course students will be able to:

- Demonstrate an understanding of science as an empirical attempt to acquire information about the real world, develop possible explanations of these phenomena, and test the explanations by predicting the outcome of future observations or experiments.
- Demonstrate an ability to assess the extent to which claims presented as "scientific" satisfy the empirical character of scientific explanations.
- Demonstrate understanding of scientific knowledge and problem solving in a physical or life science.

Specific Course Objectives:

At the completion of this course students will be able to:

- Define the field of environmental science and explain importance and relevance to real-world problems.

- Explain how various scientific fields, such as chemistry, ecology, earth science, and other relevant scientific disciplines, contribute to the field of environmental science.
- Analyze and interpret scientific evidence concerning environmental systems and problems in the context of real places, real people, real issues, and real data.
- Think critically about environmental issues and distinguish between sound and unsound interpretations of scientific evidence concerning environmental issues.
- Explain how environmental science relates to other important areas of human understanding and action, including environmental laws and policies, sustainability, equity and environmental justice.

Required Reading Materials:

- Friedland, Andrew, Relyea, Rick 2016. Essentials of Environmental Science, Second Edition. New York: W.H. Freeman and Company

Evaluation Procedures

Grade Category: Class Participation (In class "Top Hat" evaluations—see below)
Description of Requirements: Periodically during the course of a lecture questions will be presented through "Top Hat" to evaluate student understanding of the concepts being presented and monitor class attendance and participation. Participation points are earned by responding to the Tophat quizzes in class, and these quizzes cannot be made up after class.
Total: 20% (20/100 points)

Grade Category: Chapter Quizzes
Description of Requirements: Students will complete quizzes in Webcourses throughout the semester to demonstrate comprehension of material covered in the book chapter. Quizzes will be assigned at the end of each chapter and completed outside of class.
Total: 30% (30/100 points)

Grade Category: Mid-term Exam
Description of Requirements: Students will complete a mid-semester exam covering material presented in class and in other assignments as appropriate.
Total: 20% (20/100 points)

Grade Category: Final Exam
Description of Requirements: Students will complete a final exam covering material presented in class and in other assignments as appropriate.
Total: 20% (20/100 points)

Grade Category: Other homework assignments
Description of Requirements: Students will complete other assignments offered through Webcourses throughout the semester that relate to topics covered in class and in the text.
Total: 10% (10/100 points)

Grade Category: Extra Credit
Description of Requirements: Students will be able to receive extra credit points toward their grade by volunteering at the UCF Arboretum www.arboretum.ucf.edu. Students can earn one (1) point for each two-hour volunteer shift, for a maximum of 10 extra credit points for the semester. **Arboretum volunteering for extra credit must be completed by November 22.**

Grading Scale: A (100-95), A- (94-90), B+ (89-85), B (84-80), C+ (79-75), C (74-70), D (69-60), F (59-0)

Technology Requirements:

Technology	Expectations for Use
E-mail:	***ALL email communications with the instructors must be made through Webcourses.*** Grades will not be provided over email. Communication with classmates via email will be done at the student's discretion.
Top Hat **Join Code: *063264***	We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. Top Hat requires a paid subscription, and a full breakdown of all subscription options available can be found at: www.tophat.com/pricing. Visit the Top Hat Overview (www.support.tophat.com/hc/en-us/articles/200019034-Top-Hat-Overview-Getting-Started) within the Top Hat Success Center which outlines how to register for a Top Hat account, and provides a brief overview to get you up and running on the system. An email invitation will be sent to you by email, but if don't receive this email, you can register by simply visiting our course website: https://app.tophat.com/e/063264 **Note: our Course Join Code is 063264** **Make sure to enter your first and last name when you register for Top Hat!**
WebCourses:	WebCourses will be used for this class. Please check WebCourses regularly for updates, quizzes and other class information.
Computer Software	Students are expected to be able to use Microsoft Word, Excel, and Power Point.

Additional Policies

Grading and evaluation	Grades will be calculated according to the above evaluation procedures. Grades will not be distributed in class, an appointment must be made with an instructor to discuss grades. Grades will not be given over the phone, or via email.
Attendance and participation	Class attendance and participation will be evaluated through in-class quizzes and attendance queries given through Top Hat. If students cannot attend class, it is their responsibility to get the notes/resources to understand what was covered in class lecture. Coming to class unprepared, arriving late and leaving early will not be tolerated.
Religious Observances	It is the practice of the University of Central Florida to reasonably accommodate the religious observances, practices, and beliefs of individuals in regard to admissions, class attendance, and the scheduling of examinations and work assignments. **A student who desires to observe a religious holy day of his or her religious faith must notify all of his/her instructors at the beginning of the term to be excused from classes to observe the religious holy day.** The student will be held responsible for any material covered during the excused absence, but will be permitted a reasonable amount of time to complete any work missed. Where practicable, major examinations, major assignments, and University ceremonies will not be scheduled on a major religious holy day. Students who are absent from academic or social activities because of religious observances will not be penalized. A student who believes that he/she has been unreasonably denied an educational benefit due to his/her religious belief or practices may seek redress in accordance with the Student Grievance Procedure, as listed in *The Golden Rule*.

Exam make-up	The mid-term and final exams will not be offered at any other time besides the specified date on this syllabus. Failure to take the exams without a valid documented excuse (e.g. doctors note) will result in 0 points issued.
Academic integrity	As stated in the UCF creed, integrity, scholarship, community, creativity, and excellence are the core values that guide our conduct, performance, and decisions as members of the UCF community. Plagiarism and cheating contradict these values, and are very serious academic offenses. Penalties can include a failing grade in an assignment or in the course, suspension, or expulsion from the university. Students are expected to familiarize themselves with and to follow the University's Rules of Conduct.
Accommodations for the differently-abled (alternate testing opportunities, support for signers, etc.)	The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact *Student Disability Services* and the instructors at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met this criteria. Students who need accommodations should register with Student Disability Services before requesting accommodations from the professors. *Student Disability Services*, Ferrell Commons 7F, Room 185, phone (407) 823-2371. TTY/TDD please phone (407) 823-2116
Obligatory note from the UCF Administration	As of Fall 2014, all faculty are required to document students' academic activity at the beginning of each course. In order to document that you began this course, please complete the Academic Assignment in Webcourses by the end of the first week of class. Failure to do so may result in a delay in the disbursement of, or decline of your financial aid.

Course Schedule, Critical Themes & Goals (subject to change)**:**

Class Schedule	
Monday, August 21	• Introductions • Review Syllabus
Wednesday, August 23	• Lecture: CH 1 Introduction to Environmental Science Concepts
Thursday, **August 24** *Drop/Swap Deadline* *Friday,* **August 25** *Add Deadline*	
Friday, August 25	• Lecture: CH 1 Process of Science; **CH 1 Quiz due Monday 8/28.**
Monday, August 28	• Lecture: CH 2 Chemistry Basics
Wednesday, August 30	• Lecture: CH 2 Energy Basics; **CH 2 Quiz due Friday 9/1.**
Friday, September 1	• Lecture: CH 3 Energy Flows and Material Cycles
Monday, September 4	• ***No Class – Labor Day***
Wednesday, September 6	• Lecture: CH 3 Global Climate Processes and Biomes
Friday, September 8	• ***No classes, hurricane day***
Monday, September 11	• ***No classes, hurricane day***
Wednesday, September 13	• ***No classes, hurricane day***
Friday, September 15	• ***No classes, hurricane day***
Monday, September 18	• Lecture: CH 3 Biomes Continued; **CH 3 Quiz due Monday 9/18.**
Wednesday, September 20	• Lecture: CH 4 Evolution and Biodiversity (Part 1)

Friday, September 22	• Lecture: CH 4 Evolution and Biodiversity (Part 2)
Monday, September 25	• Lecture: CH 4 Population and Community Ecology; **CH 4 Quiz due Monday 9/25.**
Wednesday, September 27	• Lecture: CH 5 Human Population Growth 1
Friday, September 29	• Lecture: CH 5 Human Population Growth 2; **CH 5 Quiz due Monday 10/2.**
Monday, October 2	• Lecture: CH 6 Geological Processes
Wednesday, October 4	• Lecture: CH 6 Minerals and Soils
Friday, October 6	• Lecture: CH 6 Mining; **CH 6 Quiz due Friday 10/6.**
Monday, October 9	• Lecture: CH 7 Land Resources and Use
Wednesday, October 11	• Lecture: CH 7 Agriculture (Part 1)
Friday, October 13	• Lecture: CH 7 Agriculture (Part 2); **CH 7 Quiz due Friday 10/13.**
Monday, October 16	• **Mid-Term Evaluation (Chapters 1-7)**
Wednesday, October 18	• Lecture: CH 8 Energy 1: Non Renewable Energy
Friday, October 20	• Lecture: CH 8 Energy 2: Renewable Energy
Monday, October 23	• Lecture: CH 8 Energy 3: Our Energy Future; **CH 8 Quiz due Monday 10/23.**
Wednesday, October 25	• Lecture: CH 9 Water Resources and Human Use
Friday, October 27	• Lecture: CH 9 Water Pollution 1
Monday, October 30	• Lecture: CH 9 Water Pollution 2; **CH 9 Quiz due Monday 10/30.**
Wednesday, November 1	• Lecture: CH 10 Air Pollution
Friday, November 3	• Lecture: CH 10 Photochemical Smog and Acid Precipitation
Monday, November 6	• Lecture: CH 10 Ozone Layer, Indoor Air Pollution; **CH 10 Quiz due Monday 11/6.**
Wednesday, November 8	• Lecture: CH 11 Solid Waste
Friday, November 10	• ***No Class - Veterans Day***
Monday, November 13	• Lecture: CH 11 Reduce, Reuse, Recycle (3 R's) and Composting; **CH 11 Quiz due Monday 11/13.**
Wednesday, November 15	• Lecture: CH 11 Solid Waste Management and Hazardous Materials;
Friday, November 17	• Lecture: CH 12 Human Health, Infectious Disease, and Toxins
Monday, November 20	• Lecture: CH 12 Assessing Human Health Risks; **CH 12 Quiz due Monday 11/20.**
Wednesday, November 22	• Lecture: CH 13 Conservation and Biodiversity 1
Friday, November 24	• ***No Class - Thanksgiving Holiday***
Monday, November 27	• Lecture: CH 13 Conservation and Biodiversity 2; **CH 13 Quiz due Monday 11/27.**
Wednesday, November 29	• Lecture: CH 14 Climate Alteration and Global Warming 1
Friday, December 1	• Lecture: CH 14 Climate Alteration and Global Warming 2; **CH 14 Quiz due Monday, December 4.**
Final Exam (Chapters 8-15)	• **Wednesday, December 6, 2016 7:00 AM – 9:50 AM**