

Introduction to Environmental Science ENSC 1000-Fall 2015

Instructor:
Office:
Office hours:
Office phone:

Email:
Class location:
Class meeting time:

Course Description

This course uses the basic principles of biology and earth science as a context for understanding environmental policies and resource management practices. Our planet is facing unprecedented environmental challenges, from oil spills to global climate change. In ENSC 1000, you will learn about the science behind these problems; preparing you to make an informed contribution to Earth's future. I hope that each of you is prepared for each class and engaged with the course material.

Environmental Science Laboratory (ENSC 1000L) is a separate class and you will receive a separate grade for that course.

Course Objectives

As a result of this course, you will be able to:

- Evaluate the diverse responses of peoples, groups, and cultures to environmental issues, themes and topics.
- Use critical observation and analysis to predict outcomes associated with environmental modifications.
- Demonstrate knowledge of the causes & consequences of climate change.
- Apply quantitative skills to solve environmental science problems.
- Demonstrate knowledge of environmental law and policy.
- Design and critically evaluate experiments.
- Interpret data in figures and graphs.

Evaluation

Exams (3)	300 points (100 points each)
Online quizzes (9)	90 points (10 points each)
Current event summaries (3)	30 points (10 points each)
Participation/homework	60 points
<u>Final exam</u>	<u>150 points</u>
Total:	630 points

The letter grading scale will be as follows: A = $\geq 90\%$, B = 80-89.5%, C = 70-79.5%, D = 60-69.5%, F = $< 60\%$.

Prior to mid-semester you will receive feedback on your academic performance in this course. To receive credit for any in-class work, including exams, you must be present in your correct section.

Exams: There will be three **cumulative**, in-class, closed-book exams. Exams will contain multiple choice and/or short answer questions. You will need a 100-question scantron for each exam. The final exam will be given during finals week. Any student with an average exam grade of **92.00%** or higher may opt out of the final exam. The average exam grade will replace the final exam grade.

Makeup Exams. If a student knows that they are going to miss an exam because of a legitimate excuse, then they should arrange to take the exam early. If a student misses an exam (illness, family emergency), then the missed exam grade will be replaced by the grade on the final exam.

Quizzes: There will be ten 1-hour online quizzes administered on GaView within a 48-hour window. You can use any notes you want, but you need to work individually. These 5 or 10 question multiple choice quizzes will cover upcoming lecture material. The point of these quizzes is to ensure that you read the textbook material before lecture. For each quiz, I will indicate which topics and textbook pages will be covered. **You cannot make up missed quizzes. The lowest quiz grade will be dropped.** To earn a good grade on the quizzes, I recommend reading the assigned chapters or articles and taking notes while reading before starting the online quiz.

Current Events: An essential component of environmental science is awareness of the world around you. Therefore, you will be expected to submit 3 current event summaries of not more than 600 words. Details and an example will be posted online. You should submit all current event summaries online by 11:59PM on their due date.

Participation: Your participation grade will be based on in-class activities, in-class quizzes, and/or short assignments. You cannot make up missed in-class work.

Textbook (required): Our free, OER (open educational resource) textbook is available online. This resource was created by faculty in the Environmental Science program at Georgia College specifically for this course. This link will take you to your textbook. Each textbook chapter is a separate tab. The separate chapters are also posted on GeorgiaView.

<http://libguides.gcsu.edu/ensc1000/course-overview>

Course Format. Our course will consist of lectures, discussions, individual activities, small group activities, and whole-class exercises. I strongly encourage you to participate and am happy to address questions at any time: before, during, or after class. We will be using GeorgiaVIEW / D2L for course communications, announcements, and assignment submissions. It is your responsibility to check our page regularly for announcements, assignments, clarifications, etc. Please communicate with me through. Lecture notes will be posted. The notes are meant to assist you with taking notes and organizing information in class. Online lecture notes will **not** contain all the information necessary to pass exams. You will need to bring the notes to class, pay attention, take notes and think during class. All assignments are expected to be submitted on time and online via GeorgiaVIEW. It is your responsibility to check to make sure that your submissions go through. Assignments are due by MIDNIGHT of the due date. All assignments must be submitted as .pdf, .doc or .docx files

GeorgiaView: <https://gcsu.view.usg.edu/>

Username: firstname_lastname

Password – original pin from Banner (Birthday: mmddyy) or PAWS password

Academic Atmosphere

Attendance. I will not be taking attendance in class. However, you cannot make up missed quizzes or graded class work. Additionally, it will be very difficult for you to pass the exams if you do not attend class.

Time Commitment. You should expect to spend a minimum of 6 hours per week on this class: 2.5 hours in the classroom, 3.5 hours reviewing/studying/reading.

Integrity. We will all treat each other with respect and dignity. You are expected to abide by all policies on academic honesty, as stated in the Georgia College and State University Honor Code. It is your responsibility to complete and represent your work honestly and to demonstrate respect of others' academic endeavors. Violations of the honor code (including all plagiarism - from web sites, books, other students, etc.) will be treated seriously and will result in you failing the assignment and/or the entire course. **If a student is caught cheating on an exam, then that student will receive a failing grade for the course.** For more information, see the GC&SU catalog, or http://www.gcsu.edu/student_affairs/Student_Handbook/honor/honor.html

Cell phone policy: Cell phones off during class and no texting. There is no point in showing up to class if you are going to chat with your friends throughout the lecture.

Religious Observance Policy. Students are permitted to miss class in observance of religious holidays and other activities observed by a religious group of which the student is a member without academic penalty. Exercising of one's rights under this policy is subject to the GC Honor Code. Students who miss class in observance of a religious holiday or event are required to make up the coursework missed as a result from the absence. The nature of the make-up assignments and the deadline for completion of such assignments are at the sole discretion of the instructor. Failure to follow the prescribed procedures voids all student rights under this policy. **If you are going to miss class because of a religious holiday, then you need to contact me at least 1 week prior to class and arrange to makeup the missed work.**

Assistance for Student Needs Related to Disability. If you have a disability as described by the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, you may be eligible to receive accommodations to assist in programmatic and physical accessibility. Disability Services, a unit of the GCSU Office of Institutional Equity and Diversity, can assist you in formulating a reasonable accommodation plan and in providing support in developing appropriate accommodations to ensure equal access to all GCSU programs and facilities. Course requirements will not be waived, but accommodations may assist you in meeting the requirements. For documentation requirements and for additional information, we recommend that you contact Disability Services located in Maxwell Student Union at 478-445-5931 or 478-445-4233.

Student Opinion Surveys statement. Given the technological sophistication of Georgia College students, the student opinion survey is being delivered through an online process. Your constructive feedback plays an indispensable role in shaping quality education at Georgia College. All responses are completely confidential and your name is not stored with your responses in any way. In addition, instructors will not see any results of the opinion survey until after final grades are submitted to the University. An invitation to complete the online opinion survey is distributed to students near the end of the semester. Your participation in this very important process is greatly appreciated.

Academic Honesty. The integrity of students and their written and oral work is a critical component of the academic process. The submission of another's work as one's own is plagiarism and will be dealt with using the procedures outlined in the following link <http://catalog.gcsu.edu/ugrad/student-academic-dishonesty.htm>. Remember that allowing another student to copy one's own work violates standards of academic integrity. Also see the student Honor Code at the website: <http://www.gcsu.edu/studentlife/handbook/code.htm>

Fire Drills. Fire drills will be conducted annually. In the event of a fire alarm, students will exit the building in a quick and orderly manner through the nearest hallway exit. Learn the floor plan and exits of the building. Do not use elevators. If you encounter heavy smoke, crawl on the floor so as to gain fresh air. Assist disabled persons and others if possible without endangering your own life. Assemble for a head count on the front lawn of main campus or other designated assembly area. For more information on other emergencies, please visit <http://www.gcsu.edu/emergency/actionplanmain.htm>

Topics

- Population Ecology
- The Human Population
- Energy – Fossil fuels
- Energy – Nuclear energy
- Energy – Alternative energy
- Air pollution
- The Clean Air Act
- Carbon Cycle
- Greenhouse effect
- Global Climate Change
- Water management
- Water pollution

Week	Topic	Textbook link and information
Week 1	Intro	Chapter 1: Introduction http://libguides.gcsu.edu/ensc1000/introduction
Week 1	Introduction	Author: Dr. Kalina Manoylov Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 1	Scientific method activity	 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.
Week 2	Population Ecology (exponential & logistic)	Chapter 2: Population Ecology http://libguides.gcsu.edu/ensc1000/population-ecology
Week 2	Population Ecology (logistic & survivorship curves)	Author: Dr. Caralyn Zehnder Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 2	Population ecology handout	 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.
Week 3	Human demography	Chapter 3: Human Demography http://libguides.gcsu.edu/ensc1000/human-demography
Week 3	Human demography	Author: Dr. Caralyn Zehnder Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 3	Human demography	
Week 4	<i>Labor Day - no class</i>	
Week 4	Human population handout	 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.
Week 4	Exam 1	
Week 5	Fossil fuels - coal	Chapter 4: Non-renewable energy http://libguides.gcsu.edu/ensc1000/non-renewable-energy Author: Dr. Christine Mutiti Attribution - Noncommercial - ShareAlike 3.0 Unported
		 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License
Week 5	Mercury case study	Tuna for Lunch? Case Study http://sciencecases.lib.buffalo.edu/cs/collection/detail.asp?case_id=549&id=549
Week 5	Review Exam 1	
Week 6	Oil & natural gas	Chapter 4: Non-renewable energy http://libguides.gcsu.edu/ensc1000/non-renewable-energy
Week 6	Nuclear	

Week 6	nonrenewable energy handout	<p>Author: Dr. Christine Mutiti</p> <p>Attribution - Noncommercial - ShareAlike 3.0 Unported</p>  <p>This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License</p>
Week 7	Alternative energy	<p>Chapter 5: Alternative Energy</p> <p>http://libguides.gcsu.edu/ensc1000/alternative-energy</p> <p>Author: Dr. Kalina Manoylov</p> <p>Attribution - Noncommercial - ShareAlike 3.0 Unported</p>  <p>This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.</p>
Week 7	Alternative energy	
Week 7	Alternative energy	
Week 8	Air pollution	<p>Chapter 6: Air Pollution</p> <p>http://libguides.gcsu.edu/ensc1000/air-pollution</p> <p>Author: Dr. Christine Mutiti</p> <p>Attribution - Noncommercial - ShareAlike 3.0 Unported</p>  <p>This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License</p>
Week 8	Air pollution	
Week 8	Exam 2	
Week 9	<i>Fall break - no class</i>	
Week 9	Review Exam 2	
Week 9	Carbon cycle	<p>Chapter 7: Climate change</p> <p>7.1: The carbon cycle</p> <p>http://libguides.gcsu.edu/ensc1000/climate-change</p> <p>Author: Dr. Allison VandeVoort</p> <p>Attribution - Noncommercial - ShareAlike 3.0 Unported</p>  <p>This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License</p>
Week 10	Global Climate Change	<p>Chapter 7: Climate change</p> <p>7.2: The Science of Climate Change</p> <p>http://libguides.gcsu.edu/ensc1000/climate-change</p> <p>Author: Dr. Allison VandeVoort</p> <p>Attribution - Noncommercial - ShareAlike 3.0 Unported</p>  <p>This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License</p>
Week 10	Global Climate Change	
Week 10	Global Climate Change - handout	
Week	Consequences of climate change	Chapter 7: Climate change

11		7.3: The consequences of climate change http://libguides.gcsu.edu/ensc1000/climate-change Author: Dr. Allison VandeVoort
Week 11	Consequences of climate change	Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 11	Consequences of climate change	
Week 12	Climate change jigsaw	This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License
Week 12	Climate change jigsaw	
Week 12	Properties of water	Chapter 8: Water http://libguides.gcsu.edu/ensc1000/water Author: Dr. Sam Mutiti
Week 13	Water cycle (groundwater / surface water)	Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 13	Water cycle (groundwater / surface water)	
Week 13	Water handout	This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License
Week 14	water scarcity, desalination	
Week 14	Water review	
Week 14	Exam 3	
Week 15	Review Exam 3	
Week 15	<i>Thanksgiving - no class</i>	
Week 15	<i>Thanksgiving - no class</i>	
Week 16	Water pollution	Chapter 8: Water http://libguides.gcsu.edu/ensc1000/water Author: Dr. Sam Mutiti
Week 16	Water pollution	Attribution - Noncommercial - ShareAlike 3.0 Unported
Week 16	Water management & Clean Water Act	 This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License
Week 17	Review & final exams.	