ENVIRONMENTAL GEOLOGY 103-04 CRN: 10331
Fall 2017
MWF 11:00 – 11:50 pm, Rm 129 SSMB

INSTRUCTOR: Robin Humphreys
Office: Rm 220 SSMB
Phone: 843-953-7424
Email: humphreysr@cofc.edu When emailing, please leave your name and which course you are in, as I teach multiple courses.
Office hours: Tuesdays/Thursdays 10:30-11:30 or by appointment – Please feel free to come by with questions or concerns. You are welcome to stop by any time I am in my office.
Communication: I will use e-mail through OAKS to contact you throughout the semester, for assignment and exam clarification, changes in class schedule, and other similar reasons. You have all been assigned an official CofC email accounts and are responsible for checking e-mail on a daily basis. Note: E-mail is also the best way to contact me if you would like a quick response to a question. I will ONLY answer email from your official CofC account due to privacy concerns (aka FERPA).

Course overview: The overall objective of this course is to understand the interaction between humans and the geologic environment, especially within the context of exponential global population growth. This can be accomplished through an understanding of fundamental geological processes (e.g., earthquakes, or petroleum formation) that operate on our planet and how they respond to human activities such as urbanization or enhanced resource consumption.

General Education Student Learning OUTCOMES

Student Learning Outcome 1: Students apply physical/natural principles to analyze and solve problems**.**
Student Learning Outcome 2: Students will develop an understanding of the impact that science has on society.

These learning outcomes will be assessed with a signature set of questions given in your laboratory class final examination.

Geology Program Outcomes

1. Students will identify, describe, and classify minerals, rocks, fossils, structures, and strata; make scientific observations of these items in the field and in the laboratory; analyze observations and measurements in a scientifically sound manner;
2. Students will summarize and explain the Earth's history, uniformitarian processes that shape the Earth, and the evolution of life as reveled in the fossil record
3. Students will analyze society's dependence on Earth resources, the interaction between human activities and the natural environment (including global climate change), and understand geological hazards;
4. Students will apply geologic knowledge to the analysis of structural, paleontological, and stratigraphical problems in the field.

Environmental Geology Learning objectives: Our approach to most topics and issues will begin with familiarity and context, followed by the science required to understand associated geologic processes, and ultimately environmental geology. Specifically you will investigate and evaluate the following concepts and topics: 1) Earth as a system; 2) How the Earth "works" through Plate Tectonic Theory; 3) Earth materials and how their properties contribute to geo- hazards and natural resources; 4) hazards related to flooding, slope stability, volcanism, earthquakes, coastal processes, and pollution; 5) mineral, energy, and water resources formation and limitations; and 6) fundamentals of climate change.

WHAT WILL YOU GET OUT OF THIS COURSE?

You will learn about basic Earth and environmental processes that affect all of us. More importantly, this course will help improve your critical thinking abilities: to be able to apply knowledge of one situation to similar situations and to critique new ideas and concepts based on prior experience. These are two objectives of your liberal arts and sciences experience here at the College of Charleston. On successful completion of this course, you will be able to demonstrate:

1. a basic understanding of geological processes, natural hazards, and human-Earth interactions
2. an understanding of the limitations of Earth's resources,
3. an understanding of the science of important environmental issues facing today's global population

TEAM-BASED COOPERATIVE LEARNING: We will have several Case Studies discussions and a Poster Project that will highlight certain topics within the syllabus. You will be expected to participate in those by conducting research, discussing ideas with your peers, and then designing a project around that topic, working in **teams of 3-4 students**, randomly chosen. All team members are expected to participate and help in project development. Projects will be discussed later in the semester.

What is "Cooperative Learning?" The course is structured around small groups that work together in such a way that each group member's success is dependent on the group's success.

- Each individual should develop a sense of "positive interdependence," in other words you sink or swim together. Your efforts not only benefit you, but also your team members.
- By practicing oral explanations of how to solve problems, discussing the nature of the concepts being learned, and connecting present learning with past knowledge you will enhance your learning and promote your team mates' learning.
- There is individual accountability. The essence of individual accountability in cooperative learning is "students learn together, but perform alone." This ensures that no one can "hitch-hike" on the work of others.
- In cooperative learning groups, you will learn academic subject matter (taskwork) and also interpersonal and small group skills (teamwork). You will go on to jobs that require teamwork. Cooperative learning helps you develop the skills necessary to work on projects too difficult and complex for any one person to do in a reasonable amount of time.
- After working together for a period of time, you will be given the opportunity to for analyze how well your learning group is functioning and how well social skills are being employed.
- At the end of the semester, **peer evaluations** will determine the exact percentage of all team-graded material that will count towards each student's final grade. Details are provided on the peer evaluation form and will be discussed in class.

What Cooperative Learning is not: Cooperative learning can also be contrasted with what it is not. Cooperation is not sitting side-by-side at the same table to talk with each other as you do your individual assignments. Cooperation is not assigning a report to a group where one student does all the work and the others put their names on the product as well.

TEACHING MATERIALS:

- **TEXTBOOK: Earth: Portrait of a planet. 5th ed.** (Stephen Marshak, W.W. Norton). The e-book is bundled with the course materials provided with your lab manual. You may purchase a hard copy if you wish, but the e-book if fine. We will be using the online resources that accompany this book, along with **SMARTWORKS**, which is also provided at no additional cost to the students with the purchase of the lab manual. Instructions for registering for **SMARTWORKS** will be provided later**.**

- ***OPTIONAL*** **TEXTBOOK: Violent Earth**. (Dorling Kindersley Limited, 2011). ISBN: 978-0-7566-8675-7 You can purchase the book from Amazon or online for about $5. It is a really nice, visual book and very useful for students who are visual learners.

ATTENDANCE POLICY: ATTENDANCE IS MANDANTORY. You are expected to attend all class meetings**, and I will drop you from the class if you have more than THREE absences.** If you have an excused absence, please let me know ASAP via email AND via contacting the Absence Memo Office. See information here: http://studentaffairs.cofc.edu/about/absence-memo/index.php

Being in class is an essential component of this course and excessive absences will adversely affect your grade. Acceptable excuses include illness, personal tragedy or circumstances beyond the student's control. Work obligations are NOT considered excused absences. Additionally, attendance for general education courses is mandatory and will be taken daily.

NOTE: YOU WILL BE WITHDRAWN FROM CLASS FOR MORE THAN THREE ABSENCES!

Examples of legitimate reasons for an absence: Documented illness (i.e. with dr note), family funeral, or similar reason beyond your control for which you can provide documentation.
The following are not legitimate reasons: pressures from other classes or jobs; vague illnesses (colds, hangovers, etc.); advisor meetings, appointments/duties for other classes, work arrangements; vacations of any type, etc.

If you miss class the day homework is assigned or test announced, it is your responsibility to find out about it. **Attendance for the scheduled tests is mandatory.** If for some reason you are forced by circumstances beyond your control to miss a test, please contact me as soon as possible to arrange a make-up test. Make-up tests are generally in essay format. You will **not** be allowed to make up any **exam** for an unexcused absence.

Tardiness: Showing up late to class is both disrespectful and prevents you and your fellow students from being fully engaged in the course. Showing up in the last quarter of the class meeting time will be treated as an absence (see paragraphs above).

ASSESSMENT: GRADING POLICY

There is no 'curve' in this class; your grade depends solely on the effort that you put into the class. Grades will be assigned based on the total points you have accumulated/earned, based on the scale shown below.

- **Exams**: There will be **2 EXAMS** given during class hours, and a **FINAL EXAM**. Exams 1 and 2 are worth 100 points each; the Final Exam is worth 100 - 150 points. Every student will take the exams at the scheduled time. **NO MAKEUP EXAMS WILL BE GIVEN WITHOUT A VALID EXCUSE** (e. g., doctor's note). All makeup tests will be essays. Should you fail to take the final exam, you will receive an **X**, which will automatically convert to an **F** for the course
- **Poster Project**: working in a team, you will investigate a global environmental issue. Your final product will be a POSTER presentation given during the last week of classes. More information regarding the project will be provided later in the semester. Additional projects may be assigned during the semester, as time allows.
- **Quizzes:**
    - **Online**: There will be **DAILY ONLINE QUIZZES IN SMARTWORKS or in OAKS** (approximately 10-20 pts each) that will cover the readings and online animations. The daily quizzes needs to be completed **before** each lecture.
    - **In-Class**: Every class period, there will be short quizzes or activities (3-10 pts each) covering the previous class lecture material. The quizzes will be given at the beginning of class; **if you are late you cannot make up the quiz!**

NOTE: I do **NOT** drop any quiz grades. Quizzes will also track your attendance. **Quizzes may NOT be made up** if you miss class.

Exams/Quizzes/Projects	Points
2 Exams (100 points each)	40%
Final Exam (~ 100-150 points)	25%
Online quizzes (10 - 20 pts each)	15%
In-class Quizzes (3-5 pts each)	5%
Poster and other assignments	15%
Total Points (approx. 500-700 points)	**100%**

Letter grades will be based on a percentage of your total points accumulated:

≥93% = **A**	90-92 = **A-**	87-89 = **B+**	83-86= **B**	82-80= **B-**	77-79 = **C+**
73-76 = **C**	72-70 = **C-**	67-69 = **D+**	63-66 = **D**	62-60 = **D-**	≤59 = **F**

EXAM STUDY GUIDES: Study guides will be offered prior to each exam to help you focus on key topics. However, you are responsible for ALL MATERIAL discussed in class, ALL READINGS, and ALL QUIZZES/ACTIVITIES. The study guides are just that – GUIDES to help you study.

HOW TO DO WELL IN THIS COURSE:

- Based on successful performance of students in past semesters, you should expect to spend **four to seven hours per week** working outside of class. Students who are not committed to spending that kind of time studying and preparing for class should expect to struggle.
- **ASK QUESTIONS DURING CLASS** (even if you think others understand, chances are they think you understand and that's why they aren't asking)

SPECIAL CONSIDERATIONS AND EQUAL ACCESS: I am happy to work with any student to assure equal access to all educational materials and experiences for this course. SNAP students, to enable me to meet your accommodation needs, please present your Professor Notification Letter within the first two weeks of class, upon approval from the College of Charleston's Center for Disability Services.

CENTER FOR STUDENT LEARNING: I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the

services are available to you at no additional cost. For more information regarding these services please visit the CSL website at http://csl.cofc.edu or call (843)953-5635.

CLASSROOM CODE OF CONDUCT

Code language that guides our responses to classroom disruption can be found in the Student Handbook: A Guide to Civil and Honorable Conduct. The Student Code of Conduct (Section found within the Student Handbook) specifically forbids disruption or obstruction of teaching, research, administration, disciplinary proceedings other college activities, including its public service functions on or off campus, or other authorized non-college activities when the act occurs on college premises. The Classroom Code of Conduct (from the President's Advisory Committee) covers specific principles of civil conduct expected in a college classroom:

- Do not cut classes, come in late or leave early.
- Never leave during class unless you absolutely must. Leaving for a short break and then returning is not acceptable.
- Turn off cell phones, pagers and all other electronic devices (unless directed otherwise by the professor).
- It is rude and unacceptable to talk with classmates while the professor (or another student who has the floor) is talking.
- • Visible and noisy signs of restlessness are rude as well as disruptive to others. (Student Handbook, pp. 58-59)

For additional information please read the College of Charleston guidelines for classroom disruption http://studentaffairs.cofc.edu/honor-system/classroom-disruption.php

College of Charleston Honor Code and Academic Integrity: Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student's actions are related more to a misunderstanding will handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The F is permanent. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission-- is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance. Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor. Students can find the complete Honor Code and all related processes in the *Student Handbook* at http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php

FINAL EXAM:

The Final Exam will be **12:00-3:00 pm Monday, Dec 11, 2017. You MUST take the exam at the scheduled time – NO EXCEPTIONS.** If you have a conflict, you will need to make arrangements through the Registrar to reschedule.

***TENTATIVE SCHEDULE– Topics and dates are subject to change**

Topics	Reading
Sustainability/Easter Island	Readings on OAKS
Plate Tectonics	Chpt 4
Earthquakes and Hazards	Chpt 10
Earthquakes and Hazards; Charleston EQ	Chpt 10
Volcanic Hazards	Chpts 6/9
EXAM 1 - Friday, Sept 29, 2017	
Coastal Processes and Hazards	Chpt 18
Coastal processes: **Guest Speaker Coastal Conservation League**	Chpt 18
Slope Processes and Landslides	Chpt 16
Rivers and Flooding	Chpt 17
EXAM 2 - Friday, October 27, 2017	
Mineral Resources	Chpts 5/ 15
Water Resources and Pollution - **Guest Speaker Charleston Water Systems**	Chpt 19
Waste Management – **Guest speaker Charleston Recycling 10/30**	Readings
Energy Resources –	Chpt 14
Global Climate Change	Chpt 20/22
Geology, Society, and the Future	Chpt 23
POSTER PRESENTATIONS – Nov 27 – Dec 1, 2017	
FINAL EXAM – 12:00-3:00 PM Monday, DEC 11, 2017	

Environmental Geology 103-04 CRN: 10331 MWF 11:00-11:50 am

SMARTWORKS COURSE CODE: EARTH5E12014 (case-sensitive)Instructions for enrolling are located below.

YOUR FIRST SMARTWORKS ASSIGNMENT WILL BE DUE BEFORE CLASS ON Wednesday, Aug 30, 2017

smartwork

To enroll in SmartWork you will need an Enrollment Key (provided by your instructor), a valid email address, and a Registration Code from W. W. Norton.

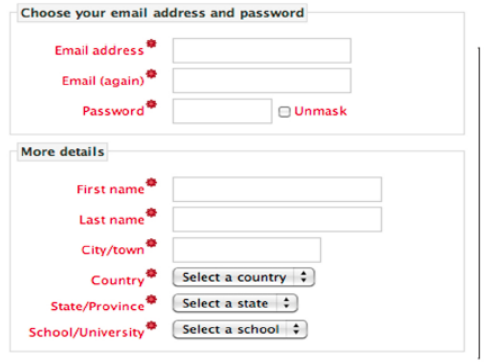
MY ENROLLMENT KEY IS: EARTH5E12014 (case-sensitive)

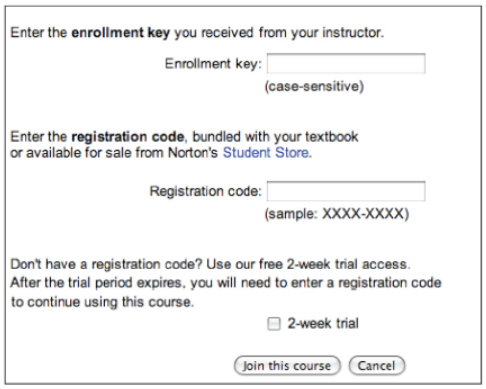
Registration codes are contained within SmartWork folders; these are bundled with new books at your instructor's request. If you do not have a registration code, you may purchase one at **wwnorton.com/smartwork**.

1. Go to **wwnorton.com/smartwork**
2. Select "Create an account"
3. Fill out all fields and click "Create my new Account."

Don't forget to record your account information for future reference!

4. Retrieve the confirmation email from **no-reply@wwnorton.com** to confirm your account.
5. Click "Courses" and select your instructor's course section from the list provided.
6. Enter the Enrollment Key provided by your instructor, and your Registration Code. Click "Join this course."





DON'T FORGET TO RECORD YOUR USERNAME AND PASSWORD FOR FUTURE REFERENCE.

W. W. Norton & Company, Inc. ▪ *Independent and Employee-owned* ▪ wwnorton.com/college ▪ For technical support, go to wwnorton.com/smartwork"