GSCI 200 Environmental Geology
Online Syllabus Fall 2021

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Course Description

This course introduces the nature, causes, risks, effects, and prediction of natural disasters related to environmental geology including earthquakes, tsunamis, volcanoes, landslides, subsidence, sinkholes, floods, coastal erosion, global climate change, and natural resources. It covers geological principles, case histories, societal impact, mitigation strategies, and public policy of natural disasters.

Course Goals and Objectives

Upon completing this course, students will be able to:

- Describe the main causes of environmental and geological natural disasters such as earthquakes, tsunamis, volcanoes, landslides, subsidence, sinkholes, floods, coastal erosion, global climate change, and natural resources.
- Explain the effects of natural disasters.
- Recognize essential elements for predictions, forecasts, and warning signs of natural disasters.
- Understand and apply best mitigation strategies for natural disasters.
- Apply preparedness strategies for natural disasters in their personal lives and contribute to disaster-related public policies.

Course Structure

This is a **3–credit hour** course. The course is **7 weeks** long and consists of **7 content modules**. Please be aware that this course is accelerated in nature; 16 weeks' worth of content will be covered in a 7-week time span. You should dedicate approximately **10–12 hours** per week to working on the course itself, but actual time commitments will vary depending on your input, needs, and personal study habits. You are required to log on to the course website a minimum of **4 days per week** but during the group project on hazards (weeks 4 - 7) you will probably need to do so more frequently.

This course is designed with the principles of collaborative learning, constructivism, and active participation in mind. You are encouraged to share your thoughts and engage in problem-

solving. The course has a consistent and predictable structure, organized around the weekly modules, with a course website that should be straightforward and easy to navigate. Instructions and due dates for activities and assignments are clearly articulated so that you know what is expected of you and you can easily stay on track.

I realize that you have a life beyond the scope of this course. However, if you are unable to complete an assignment because of professional obligations, you should notify the instructor or, better yet, prepare the assignment ahead of time and post it early. This will give me and your classmates a head start in reading and responding to your work. Most assignments are due by 11:59 PM of their respective due dates as listed on the course calendar.

Readings should be read and assigned exercises should be submitted during the week in which they are assigned. At the end of each content module, participants will have an opportunity to make sure that they have completed all the required activities and assignments.

Online Instruction

All course materials are available on Canvas and I've made every attempt to ensure that they are accessible to everyone. If you have difficulties accessing any materials (including needs for alternative formats), please let me know as soon as possible and I will rectify the situation. Accessing course materials online may be challenging - we've all experienced things like unforeseen emergencies and internet disruptions. Although this course may include some "live" or synchronous course activities, we can all be understanding about the challenges posed by the COVID-19 pandemic and the limits of technology. If you miss a synchronous session, please let me know as soon as possible so that we can discuss ways to keep you on track. If you are experiencing longer-term disruptions, please be proactive in communicating with me and contact the Dean of Students if you expect to be out for an extended period of time.

CIT has developed a number of **resources that can help you formulate good strategies for success in online courses**. These include general strategies for keeping on track with your courses as well as more specific resources about learning experiences that you may encounter in an online course. The Office of the Dean for Academic Planning and Advising has also introduced the new **KOALA (Knights' Online Academic Learning Assistance)** course support resource. Throughout the semester, if you need help with online learning strategies, you can contact the KOALA support desk, which will assist you with identifying resources and strategies for success.

CIT also provides a range of technology support resources.   When you are in Canvas, the Help menu on the left side of the screen will also direct you to a number of CIT supports, including self-help resources and options to request technology assistance.

Health and Wellbeing

The changes brought on by COVID-19 have impacted us all in a number of ways, and will continue to do so at various times and to varying degrees during the upcoming semester. Your health and wellbeing are foundational to your ability to learn, and if you find that you are feeling unwell (physically or mentally) and it is impacting your ability to complete your

coursework, please reach out. Because the learning environment will be different than it has been in the past, the indicators that usually let you know something is wrong may not be as clear to you or those around you as they would be during a typical semester. Additionally, the ways in which you normally engage in self-care may have been disrupted. Please remember that it's never too late to ask for help. The **Dean of Students (585-245-5706)** can assist and provide direction to appropriate campus resources. The college also has collected resources in a **Coping with COVID webpage**.

Future Course Material Availability

For most weeks of the course, the future week's materials will be available a few days ahead of schedule, probably on the Friday before that week officially begins. This is done for students who need to get ahead in the course due to some sort of major event planned. Please note that you should not plan on working on a future week's activities unless it is absolutely essential for you to keep up with the course. Also, some activities, such as the group project on geologic hazards will be difficult to work on in advance.

Textbook

There is an optional resource:

1) **Textbook** (for reading assignments) – Environmental Geology (10th or 11th ed.) by Montgomery, 2013 or 2019, McGraw Hill.

Course and Module Outline

- Week 1: Course Introduction and Overview
- Week 1: Introduction to Environmental Geology and Geologic Hazards
- Week 2: Earth Materials, Structures, Plate Tectonics
- Week 3: Earthquakes and Tsunamis
- Week 4: Volcanoes
- Week 5: Landslides and Subsidence
- Week 6: Rivers and Floods
- Week 7: Coastal Hazards and Global Climate Change

Module Overview

Each module will begin with the module overview, explain what the module is about, what learning goals you are expected to achieve, how long the module will take, and in what activities you will participate. Each module is designed with the same structure and activities unless otherwise specified. You can find the due dates of specific assignments in the course calendar or associated with the assignment itself.

Course Activities

You are expected to complete your work independently, in accordance with **SUNY Geneseo policy**. Failure to do so will result in strict disciplinary action, which can include loss of all credit for the assignment, notification of a dean, and possible dismissal from the college. You may work with others on assignments, but the final product must be your own. The exception to this policy is the group Wiki project, which involves the collaborative effort of you and your group members.

Grading Scale

Grade	Percent
A+	96.7–100.0
A	92.9–96.6
A−	89.6–92.8
B+	86.6–89.5
B	82.9–86.5
B−	80.0–82.8
C+	76.7–79.9
C	73.3–76.6
C−	70.0–73.2
D+	66.7–69.9
D	63.3–66.6
D−	60.0–63.2
E	0–59.9

Assignments and Point Distributions

You can access your scores by clicking the **Grades** link from the left column of the course canvas page.

All assignments have due dates. For the due dates of each assignment, please see the course calendar posted on Canvas or on the **Homepage**.

Assignments	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total points per assignment	Relative weight
Exercises	50		50		50		50	200	25
Discussions		30		30		30		90	10
Reflections	10	10	10	10	10	10	10	70	5
Quizzes	14	14		14		14	14	70	10
Group Wiki Project on Hazard Threats				30	100	55	55	240	30
Exams				100			100	200	20
Total points for the week	74	54	60	184	160	109	229	840	100

Group Wiki Project

This is a 3-part group project where groups of 3 will investigate the geology, environment, and potential hazard of a specific hazard to society and then, each group will post a 600-1,200 word summary of their findings on the course Wiki. The second part of the project will involve each group ranking the ten hazard regions in terms of their threats to society with detailed explanations and justification. The third part of the project involves an immediate hazard potential that requires immediate notification to the location's EMA (Emergency Management Agency). Each group will create an informative wiki on their recommendation for evacuation, preparation, and mitigation.

Extra Credit

Extra credit will be available by posting on the Optional Blog Posting: **Interesting Environmental Geology Web Links and Recent Natural Disasters Overview**. With this opportunity, you can post information and your thoughts on a recent event in the fields of environmental geology and natural hazards on the course wiki. You can earn up to 25 points for the whole semester by having multiple posts and responding to your fellow classmate's posts.

Exam Information

There will be two exams in this course (see schedule). The exam questions will be a mixture of multiple-choice, true/false, and matching questions. The material covered on the exams will be from the video lectures, discussions, the assigned readings, and exercises. The final exam will be non-cumulative but will cover many concepts covered during the course.

- **Make-up exams** will be available only to those students having valid excuses. Personal travel, convenience, oversleeping, or "not being prepared" are not acceptable. If you want to request a conflict exam, you must contact Dr. Wittmer in writing via email at least **three** weeks before the scheduled exam. If you have medical or family emergencies immediately before an exam, you must email Dr. Wittmer as soon as possible. A student who misses an exam for whatever reason must contact Dr. Wittmer no later than one day after the scheduled exam. Failure to do so will result in a "0" for the exam. If you believe that you have a valid conflict for the final, be sure to inform Dr. Wittmer at least 1 week prior to each exam.

Late Assignments

For all assignments (Exercises, Wiki Project, Quizzes, etc.), I will allow submission up to **three days after the assignment deadline.** I will only accept assignments after the three-day grace period if students are unwell, quarantined, or encounter extenuating circumstances. After the three-day deadline, I will no longer accept submissions or grade the assignments.

Getting Help

If you need help:

- Only contact your instructor directly if you have a personal question.
- For all other questions about course content, activities, deadlines, technical problems, etc., please check the **General Q & A** forum to see if someone else has already asked your same question and received a response.
- If your question isn't there yet, post your question to the **General Q & A** forum. Feel free to help your peers out if you know the answer!

If you have technical problems, please contact the **CIT help desk**

Accommodations: SUNY Geneseo makes reasonable accommodations for persons with documented physical, emotional or learning disabilities. Students should consult with the Assistant Dean of the Office of Accessibility (Dr. Amy Fisk, 22 Erwin, afisk@geneseo.edu). During the first week of the semester, students should alert the professor regarding any needed accommodations by the beginning of the second week of the semester.

Academic Dishonesty Policy: Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. If an incident of academic dishonesty occurs, I will enforce the policies of the university, meaning that I document the incident with the Office of the Dean and the student(s) receive a failing grade of 'E' for that assignment and potentially for the course. Consult the following link for details: (http://www.geneseo.edu/handbook/academic-dishonesty-policy)

Statement of Commitment to Inclusion and Diversity: It is my intention to have a course that is accessible and inclusive to students from all backgrounds and perspectives and addresses students' learning needs both in and out of class. The diversity of perspective and experience that students bring into our classroom is a resource, strength and benefit and we seek to cultivate a learning community that is inclusive to all identities (including race, gender, class, sexuality, religion, ability, etc.)

To help accomplish this:
- If you have a name and/or set of pronouns that differ from those that appear in your official Geneseo records, please let your instructor know.
- If you feel like your performance in the class is being impacted by your experiences outside of class, please come and talk with me, Dr. Wittmer. I care and can help you find support resources on campus. If you prefer to speak with someone outside of the course, robbie routenberg (routenberg@geneseo.edu), is the Chief Diversity Officer for the College and they and their office can provide help and support.
- If something was said in class (by anyone) that made you feel uncomfortable, please communicate this to your instructor, Dr. Wittmer. (Note: Anonymous feedback is always an option). Reporting divisive comments or behavior is an essential step in continuing the education of people who are still in the process of learning about diverse perspectives and identities.
- Know that your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.
- If any of our class meetings conflict with your religious events, please let Dr. Wittmer know so that she can make arrangements for you.

For more details on SUNY Geneseo's community commitment to diversity, equity, and inclusion, please see the content at found at the following location:
https://www.geneseo.edu/diversity/commitment