

Hazards & Humans

IDS 2935

Course Description

Natural disasters such as earthquakes, volcanoes, hurricanes, and floods have devastating impacts on human lives. This course will use geologic principles to provide a framework for evaluating earthquake and volcanic hazards, explore the limits of our predictive abilities, the challenges of forecasting weather disasters in a changing climate, and the necessity for decision-making despite scientific uncertainty. By analyzing recent and historical disasters, we will explore the interactions of natural and built environments before, during, and after major events. This course lays out the geologic mechanisms behind disasters, as well as the role of key players - scientists, engineers, developers, government officials, reporters, first responders, and the public in disaster preparedness and response.

The following questions will be examined during this course:

- How can scientific understanding help us prepare for and minimize the impacts of natural disasters?
- What are the cultural and historical ties to hazardous landscapes and how do those ties influence how populations deal with disasters?
- How do disasters impact different economic/social populations?
- How do our actions (collectively and individually) reduce or exacerbate the impact of a disaster?

Textbook:

Natural Disasters, 12th Edition, 2017 Patrick L. Abbott. Any format (digital or print, new or used) is fine. 11th edition will work also! Any additional readings will be freely available online or provided by the instructor.



When and Where

Lectures M/W 3:00 – 3:50 pm
Computer Science (CSE), E222

Breakout Labs*, Fridays

Williamson Hall 210

Period 3: 9:35 am - 10:25 am

Period 4: 10:40 am - 11:30 am

Period 5: 11:45 am - 12:35 pm

**Check your class schedule to make sure you attend the right one.*

Contact Info

Dr. Anita Marshall (she/her)

Email: anita.marshall@ufl.edu, or message through Canvas.

Office Phone: See Canvas

Office Location: Williamson 255

Office Hours:

Tues 11:00 am – 12:00 pm

(Zoom only)

Wed 11:00 am – 12:00 pm

(in-person or Zoom)

TA: Samuel Kwafo (he/him)

Email: skwafo@ufl.edu

Office Location: Williamson 253

Office Hours:

TBA

COURSE DETAILS

Fulfills: Quest 2 course requirements, Physical Science (P) and International (N) Gen Ed Requirements.

Format: Hazards and Humans is an in-person course that meets 3 times per week. We will also utilize the Canvas course page for online activities that complement the course. Weekly quizzes will be online, as will some Activities and Discussions. There are no prerequisites for this course.

Content Warning: People get hurt and die in disasters. While we will not dwell on macabre details, it is impossible to discuss hazards without talking about death and human suffering - disasters are called disasters because of the impact on human lives! If you feel you may struggle with this aspect of the course, please contact me as soon as possible so we can determine the best course of action.

Goals: Students will analyze recent and historical disasters and explore the interactions of humans with natural and built environments before, during, and after major events. The goals of this course include:

1. Examine the current state of scientific understanding about natural disasters.
2. Analyze scientific data and case studies to understand how hazards can impact human lives and how preparation for and response to disasters can be improved.
3. Reflect on the social context in which disasters occur and how those social contexts interact with disaster preparation and response.
4. Explore how human actions reduce or exacerbate the impact of disasters.
5. As a Quest 2 course, you will also be challenged to reflect on your intellectual, personal, and professional development at UF and beyond.

COURSE MATERIALS

Textbook: Natural Disasters 11th edition by Patrick L. Abbott in any format (digital or print). You won't need access codes for supporting material, so used copies are fine. You may purchase the book through the UF bookstore or rent/buy through 3rd party sellers. Supplementary reading material will be provided by the instructor.

Materials & Supplies: There is no Supply Fee associated with this course. You will need a way to keep notes in class. Paper notebooks, tablets or laptops are all good options, whatever works best for you. PowerPoint files for lectures will be posted before class starts on the class Canvas page. Any other needed materials will be provided.

YOUR RESPONSIBILITIES

- Check the announcements and your e-mail regularly - it is the only way I can directly communicate with you outside of class.
- Complete course assignments and activities in a timely fashion.
- Attend and participate in class to the best of your ability.

COURSE DELIVERABLES

I will post a page on Canvas that has everything you need for each week all in one place: reading assignments, PowerPoint files for lectures, links to quizzes, assignment materials, etc. These pages are posted at least a week in advance of any due dates.

Quizzes: Weekly online quizzes encourage you to keep up with readings and assigned videos to be prepared for the week's activities. Quizzes will be due on Monday each week before the start of class. Each quiz is worth 20 points. Your lowest quiz grade will be dropped, even if it's a zero/missing. Quizzes are worth 20% of your overall grade.

Assignments: Assignments can be given in lecture or Friday Breakout sessions, or sometimes be started in lecture and finished in Breakout sessions. Breakout sessions compliment the reading and lecture material and enable a deeper connection to the concepts of the course by providing a variety of ways of engaging in the material. Most of the work on Assignments will be completed during class time. Each assignment is worth 40 to 50 points and the lowest Assignment grade is dropped, even if it is a zero/missing. Assignments count for 30% of your overall grade.

Discussions: We will have frequent class discussions on the assigned material. There will be multiple modes of participation so that everyone can feel comfortable contributing. Discussions are worth 20 points each, lowest grade will be dropped. These are easy participation points, so share your thoughts and get your points. Discussions are worth 20% of your overall grade.

Section Reflection Essays: We don't have exams in in this course. Instead, you will write two essays, one in the middle and one at the end of the semester. Essays give you the opportunity to demonstrate your knowledge and reflect on what you've learned in the course through the readings, activities, and discussions. Section Reflections are each worth 10% of your grade for a total of 20% of your overall grade.

Florida Coastal City Hazard Analysis: The primary experiential component of this course is a collaborative hazard analysis of a Florida coastal city. We will build these over several assignments during breakout sessions using remote assessment via satellite and online data sources. Options will be available for on-site information gathering and/or community interviews as well. Each person's contribution will be unique and will help build the story of hazards and risk for the selected city. Hazard Analysis activities count towards 10% of your total grade.

Extra Credit: Small extra credit assignments will be available to the class occasionally. Extra credit can provide up to a 1% bonus to your grade.

GRADING

Weighting: Grades for each type of activity are weighted to balance out how they impact your final grade:

- Quizzes 20% of total
- Assignments 30% of total
- Discussions 20% of total
- Section Reviews 20% of total
- Hazard Assessment 10% of total
- Extra Credit 1% of total

Grading Scale: See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for UF grading policies. Final grades for this course will be assigned with the following criteria:

% Grade	Letter Grade	GPA Value
90 +	A	4.0
85-90	B+	3.5
80-84.9	B	3.0
75-79.9	C+	2.5
70-74.9	C	2.0
65-69.9	D+	1.5
59-65.9	D	1
< 58.9	E	0

Late Policy & Missed Work: Assignments, Quizzes and Section Reviews have a one-week grace period with no penalty. However, discussions are hard to make up after they end, so you will need to contact the TA to get permission and instructions on if/how to make those up. We will work with you as best as possible if you need to miss class.

Religious Observances, Military Duty & other Unavoidable Absences: Students who anticipate the necessity of missing deadlines due to religious observances must provide notice of the dates to the instructor, in writing (email is fine) at least one week in advance of the missed class days so accommodations to be made. For other unavoidable absences, contact me as soon as you know the dates. Please do not wait until after you have missed assignments to ask for an exception, as I may not be able to help - especially near the end of the semester.

ACCESSIBILITY, INCLUSION & RESPECT

Respect & Inclusion: Everyone should feel welcome to share their thoughts in a respectful way in this class. If something in the course material, instruction or class interactions make you feel excluded or uncomfortable, please let me or the TA know so we can address it. We will do our best to ensure you are called by the name you prefer and with the correct pronunciation. You can specify your pronouns on the Canvas course page, privately to us, or in class. Please correct us if we say your name or pronouns incorrectly – we want to get it right.

UF Statement on Accommodating Students with Disabilities: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started with the Disability Resource Center: <https://disability.ufl.edu/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

My Personal Statement on Accessibility: We all learn differently. You don't have to have a formally recognized disability to find yourself having difficulty with some aspect of the college learning environment. Please let me know if something in the course material presents a barrier to your full participation in the course so we can work together to find a reasonable solution – *even if you don't have, or don't yet have, a formal accommodation letter*. And please contact me during the semester if your accommodation needs change.

Masking and personal space: The public health situation is constantly in flux and doesn't impact everyone the same way. Masking is optional on campus and welcome in my classroom. Some people are not ok with close interactions with others, so please honor other people's requests for extra space as best you can. There will be no tolerance for harassment regarding mask wearing (for or against). Medically vulnerable students, staff and faculty are part of our campus community and deserve access to educational spaces like everyone else.

COURSE SCHEDULE*

This schedule is subject to change as the semester progresses. Weekly reading and/or viewing assignments, activities and assignments will be listed on the class website at least one week in advance of the due date.

Week	Topic	Notes
1: Wed 8/23	Introduction to Disasters	
Breakouts 8/25	Discussion, psychology of disasters.	
Section 1: Tectonic Hazards		
2: 8/28 + 8/30	Plate Tectonics	
Breakouts 9/1	Exploring Plate Tectonics	
3: Wed 9/6*	Volcanoes Part 1	* Mon 9/4 is Labor Day, no class.
Breakouts 9/8	Interpreting volcanic rocks	
4: 9/11 + 9/13	Volcanoes Part 2	
Breakouts 9/15	Eruption simulator (trashcano)	
5: Mon 9/18	Earthquakes Part 1	
Breakouts 9/22	Geolocating earthquakes	
6: 9/25 + 9/27	Earthquakes Pt 2	
Breakouts 9/29	Earthquake Impacts and recovery	
Section 2: Weather and Climate Hazards		
7: 10/2 – 10/4	Severe Weather	
		* Fri 10/6 is Homecoming, no class.
8: 10/9 + 10/11	Hurricanes & Typhoons 1	
Breakouts 10/13	Understanding Hurricane data	
9: 10/16*+ 10/18*	Hurricanes & Typhoons 2	*Dr. Marshall & Samuel at a conference. No class all week. Lecture materials and breakout assignment on Canvas.
No Breakouts*	Preparing for the storm (online)	
10: 10/23 – 10/25	Extreme Heat and Cold	
Breakouts 10/27	Hazards & Warming Oceans	
11: 10/30 – 11/1	Wildfires	
Breakouts 11/3	Fire forecasting	
Section 3: Erosion and surface Hazards		
12: 11/6 + 11/8	Landslides	
No Breakouts*		* Fri 10/9 is Veteran's Day, no class.
13: 11/13 + 11/15	Sinkholes	

Breakouts 11/17	Campus Sinkhole tour	
14: 11/20 – 11/24 ⁱ	<i>Thanksgiving Break – no class meeting all week.</i>	
15: 11/27-11/29	Floods	
Breakouts 12/1	Managing flood risk	
16: 12/4 + 12/6 ⁱ	Sea Level Rise & Coastal Erosion	
		ⁱ <i>Fri 12/8: Reading Day, no class</i>
17: 12/11 - 12/15	FINALS WEEK	No class meetings, no final exam. Second Reflection Essay due 12/13

NEED HELP?

Instructor Help: Office hours are for your benefit - ask questions, get assignment help, discuss class topics or geoscience degrees and career options, or just say hello. Office hours are hosted on Zoom with live captioning available. While I have a limited window of time listed for office hours, I am in my office at other times and you can always set up an appointment at a time that works for you.

Emailing the Instructor: I teach multiple large classes – my inbox can get out of hand at times. I try my best, but please don't expect an immediate reply to emails. Please tell me which class you are in somewhere in the email -it's very helpful! If it's not regarding sensitive info (like grades or accommodations), faster replies are often achieved by emailing the TA, or by posting your question on the Class Questions Discussion thread on Canvas where anyone can answer.

Mental Health and well-being: College life can take a toll on your mental health. If you are mentally or emotionally struggling for any reason, you can contact the [Counseling and Wellness Center](#). They have one-click access to people who can help. If these struggles are negatively impacting your performance your courses, I encourage you to contact the [Dean of Students Care Area](#) - a support team that facilitates temporary accommodations, authorization to make up missing course work, etc. Additionally, if you are comfortable doing so, please reach out to me and I will provide any accommodations in this course that I can.

Food Pantry: The Field and Fork Pantry is a resource on the University of Florida campus committed to supporting anyone in the UF community experiencing food insecurity. <https://pantry.fieldandfork.ufl.edu/>

Financial Assistance: UF's [Aid-A-Gator](#) program has small grants available to help students with unexpected financial needs.

Technical Support: For issues with technical difficulties with the Canvas page, your UF email or other online resources, please contact the UF Help Desk: <http://helpdesk.ufl.edu>, or (352) 392-4357.

STUDENT FEEDBACK & COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available

at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

UF POLICIES

University Policy on Academic Misconduct: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Conduct Code: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>, which includes the Honor Pledge.

UF Undergraduate Student Handbook: The student handbook has all the details on UF policies for students. <https://dso.ufl.edu/resources/student-handbook/>

That was a ton of information – thanks for reading to the end!