# GLY 1880 – Earthquakes, Volcanoes, and Other Natural Disasters

**Dr. Liz Screaton, screaton@ufl.edu** Help hours Tues 1-2 pm and Thurs 2-3 pm

**TA: Yitan Wang, yitanwang@ufl.edu** Help hours Mon and Weds 2 to 3 pm.

**Help Hours:** Because this is an online course, the help hours will be online. At other times, please email both of us (for the quickest answer), or you can post on the Course Q&A Discussion Board. Please email if you'd like to arrange a time to ask questions by phone, online conference, or in person.

## Overall Course Goals and Outcomes

- To gain an overview of the physical geological sciences as viewed through the lens of natural hazards.
- To get a better understanding of the concepts of risk, hazard, and vulnerability and how they affect you both day to day, and over a longer term.
- To convey the importance of scientific and critical thinking not only to science, but to the rest of your life as well. *This course fulfills the UF General Education Physical Science (P) requirement. For more information, see the last page of this syllabus.*

## Textbook

There is no required textbook purchase for this course. Readings will be linked from each module in Canvas. The class will use chapters from open educational resources.

## Additional Course Fees

$105 UF distance learning fee. Note: This fee is not applicable for students in the UF Online section.

## Class Format

GLY 1880 is an online course using Canvas. The class consists of 12 modules. Each module will contain:

- A background chapter and one or more short video lectures to introduce the concepts, terms, and skills.
- A 5-point Quiz (time-limited; 45 minutes). Questions are multiple-choice, T/F, fill-in-the-blank, or multiple answer. Questions are randomly drawn from pools of questions of similar difficulty. *You are allowed to look back at the readings and notes during the quiz.*
- An 8-point assignment. These will expand on the chapters using readings and some activities. Format will generally be written, but there will be occasional short recorded presentations for the class. Unless otherwise specified, you are allowed to discuss assignment questions with others but must produce your own answers. **All answers must be your own, all shown work must be yours, and all figures must be created by you.** Written assignments and presentations will be evaluated using Turnitin to determine the originality of your work. Turnitin is an online service to help prevent and identify student plagiarism.
- In each module, the **group discussion (2 pts)** provides a place to consider the implications of the material, apply concepts, and examine issues. The discussions will include student written posts and replies. The written posts and replies will be evaluated on how well they address the question or assignment and the quality of communication. Please carefully review for typos before posting.

During the semester, there will also be:

- Two **wrap-up quizzes (online, multiple choice, 60 minutes)** will review terms and concepts, and some of the questions will ask you to integrate material from readings, discussions and/or presentations. *You are allowed to look back at course resources during the wrap-up quizzes; however, creating a brief "notes page" is recommended due to the limited time.*
- Two synthesis **reports** which will require you to apply the skills that you've learned to new situations and to combine material from different modules. The reports will also provide experience in technical writing. The reports will be evaluated using Turnitin to determine the originality of your work. Turnitin is an online service to help prevent and identify student plagiarism.

## Grading

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| **268 total points**<br>• Introductory Quiz 6 pts<br>• Introductory Discussion 2 pts<br>• Module Quizzes 50 pts (best 10@5 pts)<br>• Module Discussions 22 pts (best 11@2 pts)<br>• Module Assignments 88 pts (best 11 @8 pts)<br>• Wrap Up Quizzes: 40 pts (2@20 pts)<br>• Wrap Up Syntheses: 60 pts (2@ 30 pts) | A: ≥93.4%; A- 90.0-93.3%; B+ 86.7 – 89.9%, B: 83.4 – 86.6 %, B-: 80.0 – 83.3 %, C+ 76.7 – 79.9 %; C: 73.4 – 76.6%, C-: 70.0 – 73.3%, D+: 66.7 – 69.9%, D: 63.4 – 66.6%, D- 60.0 – 63.3%, E 59.9% and below**.** *(Information on how UF calculates GPA based on letter grades can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx )* |
| **These grade criteria are firm. At the end of the semester, the points you earn determine your grade.** Approximately 5 extra credit points will be available to all students at various times during the semester. Please take advantage of these opportunities for extra points. **We do not negotiate the final grade or offer special extra credit opportunities to individual students** | |

## Academic Honor Code

Students must follow the University of Florida Honor Code. On all work submitted for credit by students of the University of Florida, the following pledge is either required or implied: "*On my honor, I have neither given nor received unauthorized aid in doing this assignment*." Before submitting any work for this class, please read the policies about academic honesty at https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

- **Specifics for this class:**
  - You are allowed to discuss reading quiz and assignment questions with other students and to ask the prof or TA for help, but all work submitted must be your own.
  - Having anyone else complete any work for you, completing any work for another student, or receiving/providing answers is not allowed and is subject to being reported as an honor code violation.
  - **Syntheses and wrap-up quizzes are to be completed without help from anyone except the professor or TA.**
  - Assignments and syntheses will be evaluated with Turnitin. Turnitin is an online service to help prevent and identify student plagiarism by comparing your submission to other material and student submissions. Substantial overlap with other submissions/material will be considered an honor code violation.
- **How to avoid problems:**
  - Don't copy and paste any text from the web or from another person.
  - Don't provide any answer text to another student –even if it is verbal. Because we won't be able to tell who did the work and who copied, both students will face a potential honor code violation. Providing answers also does not help the other student learn.
  - Give credit where due. If you found another student's explanation or discussion post helpful, or used information from the internet, *summarize* rather than copy what they said and credit the source.

## Course announcements and email:

Announcements and Canvas Email ("Conversation Messages") will be used to contact you and to inform you of updates or corrections to course deadlines or content. Make sure that you either have Notification Preferences are set to "ASAP" for Announcements and for Conversation Messages, or that you check these frequently.

## Getting answers to your questions

Questions are normal in any college-level class, and asking questions is an important part of the learning process.

- Emails sent during help hours will receive an immediate response unless we are helping others. Other weekday daytime (9 am -5 pm) emails will receive a response within several hours. Emails sent during evenings, holidays, or weekends will normally be responded the morning of the next weekday.
- By past student request and for consistency, all deadlines at 11:59 pm. Be sure to allow yourself enough time prior to deadlines to complete the readings, view the videos, and read through the assignment and discussion instructions. I recommend completing this by the day before the deadline, when possible, but no later than 5 pm the day of the deadline.

- To report course-specific errors such as a broken link in an assignment or missing information, email both the TA (yitanwang@ufl.edu) and me (screaton@ufl.edu). We are happy to correct any problems and will credit you 1 point if you are the first to report a problem and **the problem is reported to us by 5 pm before any deadline.**

- For content questions, the first place to go is to Course Question and Answer Discussion Board. Check whether the question has already been answered. If not, send an email to me (the prof) and the TA **or** post your question.
- For questions that are specific to you, such as about your grade or an upcoming conflict with a deadline, please email me or the TA.
- For problems with the Canvas system: call 352-392-4357 or via e-mail at helpdesk@ufl.edu.

## Deadlines and Policies

- Deadlines in Canvas are 11:59 pm. Please be aware that the Canvas clock might differ from your watch and also that Canvas considers the deadline to be 11:59:00 (not 11:59:59).
- Be sure to carefully read the assignment and ask any questions well before the deadline. In addition, be sure to view any files after submission to check that it is the correct file and that it uploaded without error.
- For *pre-existing conflicts* (e.g., athletic, religious, academic): email me (screaton@ufl.edu) **no later than 1 week before a deadline** to set an alternate deadline.
- For *sudden, unexpected major issues:* email me (screaton@ufl.edu) no later than 5 pm the day of the deadline. Documentation may be requested.
- Typically for long-lasting illnesses or other issues that affect more than one course, students contact the Dean of Students Office, who will verify and then inform all the student's professors. You'll then work with me (and your other professors) to arrange new deadlines.
- Mistakes happen and bad days happen. That's why the lowest **two** quiz score will be dropped, the lowest discussion grade will be dropped, and the lowest assignment score will be dropped.

Class Demeanor Students are expected to treat other students, TAs, and professor with consideration. Discussions and peer reviews must be constructive and courteous.

Accommodations for Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluations**:** 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/

## Course Topics and Schedule

In case of UF closure, the schedule will be adjusted.

| Topic | Deadlines<br>Q is quiz<br>A is assignment<br>D is discussion |
|---|---|
| Getting Started; Introduction | Aug 22 |
| Module 1: Geology and the Earth | Aug 27: Q1<br>Aug 29: A1 and D1 |
| Module 2: Plate Tectonics | Sept 3: Q2<br>Sept 5: A2 and D2 |
| Module 3: Earthquake Basics | Sept 10: Q3<br>Sept 12: A3 and D3 |
| Module 4: Earthquake Hazards | Sept 17: Q4<br>Sept 19: A4 and D4 |
| Module 5: Earthquake Probabilities, Preparation and Response | Sept 24: Q5<br>Oct 26: A5 and D5 |
| Module 6: Earthquake Preparation and Response | Oct 1: Q6<br>Oct 3: A6 and D6 |
| Wrap Up: Science, Plate Tectonics, and Earthquakes | Oct 8: Synthesis 1<br>Oct 10: Wrap Up Quiz 1<br>Oct 15: Catch up (in case of UF closure) |
| Module 7: Volcanoes | Oct 17: Q7<br>Oct 22: A7 and D7 |
| Module 8: Volcanic Hazards | Oct 24: Q8<br>Oct 29: A8 and D8 |
| Module 9: Monitoring Volcanoes | Oct 31: Q9<br>Nov 5: A9 and D9 |
| Module 10: Hurricanes and Other Storms | Nov 7: Q10<br>Nov 12: A10 and D10 |
| Module 11: Floods | Nov 14: Q11<br>Nov 19: A11 and D11 |
| Module 12: Slope Failures and sinkholes | Nov 21: Q12<br>Nov 26 A12 and D12 |
| Wrap Up Volcanic and Climate-Related Hazards | Dec 3: Synthesis 2<br>Dec 10: Wrap Up Quiz 2<br>Dec 12: Catch Up (in case of UF closure) |

# SYLLABUS

How this course fulfills the Physical Sciences Requirement: Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments. To fulfill the physical science requirement, this course focuses on the major developments in the field of geology including the theory of plate tectonics. This developments will be used to illustrate the scientific method. Critical thinking skills will be developed using virtual experiments and analyses of recent natural disasters. Students will evaluate data to formulate and test hypotheses.

**The General Education requirements for Student Learning Outcomes are: 1) Content:** Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline. 2) **Communication:** Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline. 3) **Critical Thinking:** Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

In this course, the *content outcome* will be assessed through the quizzes based on terminology and concepts for each module, the assignments, and the final. The *written communication outcome* will be assessed through your discussion posts, and the synthesis writing assignments. Discussion posts are evaluated for completeness and clarity. The *oral communication outcome* will be assessed through audio/ video presentations, which will be graded on content, use of supporting material, and delivery. *Critical thinking* will be assessed through the syntheses, which require you to integrate scientific understanding of geology with societal factors that affect water use, and the exams, which will require you to apply concepts and methods to new situations.