Course Syllabus

Earthquakes and Volcanoes ISNS 2359.0W1 (Online)

Department of Geosciences School of Natural Sciences and Mathematics

The University of Texas at Dallas

Course Information

Course Number/Section	ISNS 2359.0W1/0W2
Course Title	Earthquakes and Volcanoes
Term and Dates	Spring 2022– January 18 to May 5th

Professor Contact Information

Professors	Dr. Ignacio Pujana
TA	TBA
Office Phone	972-883-2461
Email Addresses	pujana@utdallas.edu
Office Location	ROC 2.301B
Office Hours	by email appointment
Geosciences Department	972-883-2401

Course Modality and Expectations

Instructional Mode	Asynchronous Online.
Course Platform	All supporting material, all tests and assignments, and all communication will be provided online through eLearning at https://elearning.utdallas.edu link to Connect **ASSESSMENTS:** Tests, and Smart Book modules. You can access Assessments by clicking the proper icon on the designated Folder All the assessment activities will be conducted online on your own computer. **SmartBook:** an adaptive learning system designed to help students learn faster, study more efficiently, and retain more knowledge for greater success. These assessments must be passed with 100**%** in order to open each one of the 10-unit tests; most of the unit Tests have two Smart Book modules. These assignments will be open the first day of class and remain open until the end of the semester. Please be aware the deadline of the test will be enforced strictly, in consequence is wise to have your SmartBook modules done well in advance of the test deadline. All SB assignments will contribute 12% to your final score.
Expectations	Students are required to log in regularly every week to the online class site; there is a new unit with fresh assessments every week -Wednesday at 11:00 AM. The Schedule included on this syllabus will be strictly follow unless further notification on the main page of this class.
Asynchronous Learning Guidelines	This class is offered only as asychronous instruction including intruction material, assignments and exams.

COVID-19 Guidelines and Resources

The information contained in the following link lists the University's COVID-19 resources for students and instructors of record.

Please see http://go.utdallas.edu/syllabus-policies.

Class Participation

Regular class participation is expected regardless of course modality. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to university requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

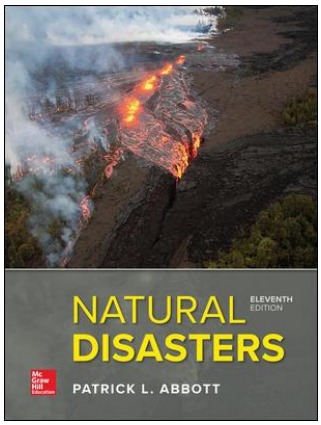
Course Pre-requisites, Co-requisites, and/or Other Restrictions
None

Course Description
This course provides a broad overview of the science behind earthquakes and volcanoes, insights on the architecture, processes, evolution of the earth, and their impact on humankind and other organisms. The plate tectonics model provides the central framework in which the many aspects of earthquakes and volcanoes are described. This is an interdisciplinary science course offered in an online format. A flexible approach based on programmed self-instruction, with frequent testes to monitor progress, substitutes for the usual lecture with infrequent exams approach used in most courses.

Student Learning Objectives/Outcomes

- Explain the basic divisions of the earth, their compositions, and their role in plate tectonics.
- Recognize the types of plate boundaries and explain their relationship to crustal movement and mountain building.
- Know the basics of crustal deformation and recognize geologic faults and structures.
- Develop an understanding of the geology of earthquakes and volcanoes, with an emphasis on plate tectonic theory.
- Discuss earthquake generation, measurement, and prediction.
- Describe types of volcanoes, lava viscosity, composition and their relation to plate tectonics and volcano explosion.
- Become familiar with the terminology used to describe earthquakes and volcanoes
- Identify and understand the following classes of volcanoes: hot spot volcanoes, subduction zone volcanoes, island arc volcanoes, and mid-ocean ridge volcanoes.
- Appreciate the relationship between human activity and geologic natural disasters with an historic perspective.
- Understand the constructive and beneficial results of volcanoes.
- Explore the subject of climate variability and natural Disasters
- Explore Extinction Events and extra-terrestrial volcanism and Impacts

Required Textbooks and Materials
Abbott, Natural Disasters 11e (ISNS 2359) Standalone Connect: 9781260996142, Optional Connect with Leaf Loose Bundle: 9781260996005



- 0the connect feature offered with an ebook. Follow the link inside eLearning, Earthquakes & Volcanoes ISNS 2359, will take you into the registration (only needs to be done once)
- **Very Important:**
- Register with your UTD account and your official name on record, otherwise you will be unregistered.
- The publisher offers a free trial for about two weeks or so.
- Please familiarize yourself with the functionality and features of eLearning and connect as soon as possible (see further information below).
- Alternatives for those students who want a printed textbook (not required), may be explored on the same publisher site

---

Course Policies:

All supporting material, all tests and assignments, and all communication will be provided online through eLearning at https://elearning.utdallas.edu Link to **connect**

ASSESSMENTS: Tests and Smart Book modules. You can access Assessments by clicking the proper icon on the designated Folder

All the assessment activities will be conducted online on your own computer.

SmartBook (SB): an adaptive learning system designed to help students learn faster, study more efficiently, and retain more knowledge for greater success. These assessments must be passed with at least 90**%** to open each one of the 10-unit tests; most of the unit Tests have two SmartBook modules. These assignments will be open the first day of class and remain open until the end of the semester. Please be aware, the deadline of the test will be enforced strictly, in consequence is wise to have your SmartBook modules done well in advance of the test deadline. All SB assignments will contribute 12% to your final score.

.

Tests: A test includes material contained on one or two chapters. A prerequisite is to earn at least 90% on the assigned SB Unit module/s. Every week a new test will be added and the oldest one is closed.

Unit Tests contribute 90% of the final score, start at 11:00 AM Wednesdays and close two weeks later also a Wednesday, 11:00 AM. This is a way to allow you to plan your testing time better but be careful don't wait until the deadline. Please read the onscreen instructions carefully, once it starts you will have 30 minutes to complete a test (saving and returning to it is not allowed). **Tests are based on the textbook; however right answers may require elaboration of the information no just mere repetition.** Each Test is timed 30 minutes and can be attempted two times (if the student wish to do so), highest grades will be recorded) within the scheduled time window.

Make up:

No make-up tests. Two Recovery tests will be offered, to replace one missed test each, these are comprehensive tests. The first Recovery 1 will include units 1 to 5, and Recovery 2 includes questions from Units 6 to 10. This opportunity will be offered at the end of the semester.

Please review the academic calendar below for the SB assignment and tests periods. Note that the due date for a SmartBook assignment is at the end of the semester, this is to allow students the maximum flexibility to complete the requirements for this class inside of busy schedules. However, it is strongly recommended that students do not wait until the last hours/minutes to take tests because it will take at least 30 min to an hour to complete the prerequisite assignment before you can open the test.

In addition, unforeseen internet and computer problems can interfere with the online test. Computer and connection problems are not a valid excuse to miss a test. UTD keeps supported computer labs open around the clock that should solve problems with personal computers if necessary.

On rare occasions, internet crashes can occur while taking online test causing e-learning to submit a score for an incomplete test. Since, you are allowed 2 attempts for each test and only the highest

score will count; it should take care of most of the issues. Still, if this occurs, please send a message to the instructors.
Messages received 24 hours or more before the end of the test period (i.e. before Monday 11 AM for a test period ending on Wednesday 11 AM), will be addressed. No guarantee of response is given for messages received after a Tuesday 11 AM for a test period ending the following Wednesday.

Student Assessments

Grading Information Weights

Tests 1 to 10	90%
SB assignments	12%
Total	102 %

Grading Scale
Based on 10 Tests grades,

Scaled Score (%)	Letter Equivalent
97.1 -100	A+
93.1-97	A
90.1-93	A-
87.1-90	B+
83.1-87	B
80.1-83	B-
77.1-80	C+
73.1-77	C
70.1-73	C-
60.1-70	D
Less than 60	F

Grades will be posted to your grade book automatically via eLearning. Your first score will be the score shown in the GRADE BOOK. You may take the test a maximum of two times (Highest score will count) and submit the test on time.

Accessing Grades
Students can check their grades by clicking "My Grades" under Course Tools inside eLearning.

Note: There is a certain lapse time (as much as 24 hours) between display of your test score in Connect and eLearning. So, do not panic if your test score is not displayed in "My Grade" immediately after you completed the test. Your score should be saved in Connect and will be transferred eventually.

Computer and connection problems are not a valid excuse to miss a test, particularly, if you choose to do your test during the last hours/minutes of the Testing period. In case of computer/connection malfunctions, remember UTD keeps the supported computer labs open around the clock.

Academic Calendar

You can access Assessments by clicking the proper icon on the designated Unit Folder.
Tests will start at 11:00 AM Wednesday and close two weeks later also on Wednesday 11 AM. This is a way to allow you to plan your testing time better but be careful don't wait until the deadline.

Unit Tests: Please read the onscreen instructions carefully, once it starts you will have 35 minutes to complete a test. **Tests are based on the textbook, however right answers may require elaboration of the information no just mere repetition.** Each test is timed 35 minutes and can be attempted two times

(if the student wish to do so, highest grades will be recorded) within the scheduled time window. Late submission is not allowed and will not accept any excuses.

WEEK	Unit/ Chapter number and Topic	ASSESMENTS / OPENINGS & DEADLINES
1-2/16	Orientation HWK Introduction: Syllabus Read it!!	Read Syllabus; check all necessary plug-ins in your computer. Register on Connect see how on the class eLearning site. Complete the **Orientation homework** must achieve 100 % to open test 1. Orientation will be open January Wednesday 19th at 11:00 AM; this grade, however, will not be counted towards the final grade. The way to proceed is first complete the Orientation Homework, then you'll be ready to test Unit 19th
3/16	**1/** Introduction Chapter 1 Natural Disasters and the Human Population	Read Chapter 1 on the textbook. Start the SB Module Chapter 1 to assess yourself and read again missed concepts on the textbook. Earning 100 % on these modules IS NECESSARY to open access to the corresponding Test Unit. **SB Module/s** will be always open. **Unit 1 Test is available: Wednesday January 26th at 11:00 AM until Wednesday February 9th 11:00 AM.** **This grade is what will start counting towards your final grade. Unit test will have a maximum of two attempts, 20 questions on 35 minutes. Highest grade is what counts.**
4/16	**2/** Chapters 2 & 4. Internal Energy and Plate Tectonics. & Plate Tectonics and Earthquakes	Read Chapters 2 and 3 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. No limit to the number of tries and the highest score is what counts. **Unit 2 Test** will be available Wednesday Feb. 2nd 11:00 AM, to Wednesday Feb. 16th, 11:00 AM.
5/16	**3/** Chapters 3 & 5: Earthquake Geology and Seismology & Earthquakes Throughout the United States and Canada	Read Chapters 3 and 5 on textbook. Must pass (100%) the two SB Modules to be allowed test on UNIT 3 **Unit 3 Test** will be available Wednesday Feb. 2nd 11:00 AM, to Wednesday Feb. 16th, 11:00 AM.
6/16	**4/** Chapter 6 Volcanic Eruptions: Plate Tectonics and Magmas	Read Chapter 6 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. No limit to the number of tries and the highest score is what counts. **Unit 4 Test** will be available Wednesday Feb. 16th, 11:00 AM. to Wednesday March 2nd 11:00 AM.
7-8/16	**5/** Chapters 7 & 8 Volcano Case Histories: Killer Events & Tsunami versus Wind-Caused	Read Chapters 7 and 8 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. No limit to the number of tries and the highest score is what counts. **Unit 5 Test** will be available Wednesday Feb. 23rd, 11:00 AM. to Wednesday March 9th, 11:00 AM.

9-10/16	**6/** Chapters 9 & 10: External Energy Fuels Weather and Climate & Tornadoes, Lightning, Heat, and Cold	Read Chapters9 & 10 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. **Unit 6 Test** will be available Wednesday March 2nd, 11:00 AM to Wednesday March 23th, 11:00 AM.
11/16	**7/** Chapters 11& 12: Hurricanes & Climate Change	Read Chapters 11 and 12 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. **Unit 7 Test** will be available Wednesday March 9th, 11:00 AM to Wednesday March 30st, 11:00 AM.
12/16	SPRING BREAK 03/14 to 03/20/2022	
10/16	**8/** Unit 8 Chapters 13 &14: Floods & Fire	Read Chapters 13 and 14 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. **Unit 8 Test** will be available Wednesday March 23rd, 11:00 AM to Wednesday April 6th, 11:00 AM.
11-12/16	**9/ Chapters 15 & 16: Mass Movements & Coastal Processes and Hazards**	Read Chapters 15 &16 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. **Unit 9 Test** will be available Wednesday March 30st, 11:00 AM to Wednesday April 13th, 11:00 AM.
13-14/16	**10/** Chapters 17 & 18: Impacts with Space Objects & The Great Dying	Read Chapters 17 & 18 on textbook. Must pass (100%) the SB Modules to assess yourself and access the Unit Test. **Unit 10 Test** will be available Wednesday April 6th, 11:00 AM to Wednesday April 20st, 11:00 AM..
15-16/16	**Recovery Period** April. 20st to May 4th, **11:00 AM** • Recovery 1 Test offered as one-time opportunity, to **replace one missed test of the first part of the semester (will not count to improve low grades).** Recovery 1 is comprehensive and will include units 1 to 5. • Recovery 2 Test offered as one-time opportunity, to **replace one missed test of the second part of the semester (will not count to improve low grades). Recovery 2** is comprehensive and will include units 6 to 10.	

Class Participation
Students are required to log in regularly every week to the online class site; there is a new unit with fresh assessments every week -Wednesday at 11:00 AM. The Schedule included on this syllabus will be strictly followed unless further notification or announcement is posted on the main page (ELearning) of this class. **Always make sure to check the class announcement for new updates and changes**.

Technical Requirements
In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage**.**

Course Access and Navigation
This course can be accessed using your UT Dallas NetID account on the eLearning website.

Please see the course access and navigation section of the Getting Started with eLearning webpage for more information.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication
This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources
Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

Server Unavailability or Other Technical Difficulties
The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and aLSo contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.