

Exploring the Geological Sciences

GLY 1000

3 Credit Hours

“Look deep into nature, and then you will understand
everything better.”

-Albert Einstein

Instructor: Dr. Ann L. Heatherington, Ph.D, P.G.
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Office Hours: Office visits can be arranged on request.

Course Website: elearning.ufl.edu

Course Communications:

Please send your questions about the course material to Dr. Heatherington via email or through the course management system.

Required Text:

The Essential Earth, 2nd Edition, by Jordan, Thomas H., and Grotzinger, John, 2011, W.H. Freeman, 464 pages. (ISBN-13: 978-1429255240 ISBN-10: 1429255242)

You may use either the printed book or the e-textbook.

Video/Audio:

You will need to be able to play video and audio files and access readings from the internet.

Course Description:

An introductory survey in geology, this introduces students to the classical basics of geology through an examination of popular topics such as geologic hazards, the earth resources, and global climate change.

Prerequisite Knowledge and Skills:

There are no prerequisites for this course apart from the ability to read well, write competently and use the course software.

Purpose of Course:

This course is intended for college-level students who do not intend to study geology in depth as a major subject. As such, the primary goals are to familiarize the student with fundamental principles of the scientific method, introduce them to classic, basic principles of the geological

sciences, and finally, but not least, to impart sufficient knowledge of the fundamentals of important public issues such as geological hazards (flooding earthquakes, volcanoes, landslides), geologic resources (metals, fuels, groundwater), and global climate change, so that they may act as informed citizens when questions of public policy or personal well-being arise.

Course Goals and/or Objectives:

By the end of this course, students will be able to:

- Describe the types of rocks that make up the earth's surface and the major minerals that make up those rocks.
- Describe the theory of plate tectonics. Present a coherent explanation of the relationships among such features as volcanoes, earthquakes, mountain chains, and deep-sea trenches, and the processes that occur at plate boundaries.
- Describe the interior structure of the earth and the interior processes that cause plate movements.
- Describe the various surficial geologic processes that sculpt the landscape by eroding, transporting, and depositing sediments. These include the actions of glaciers, streams, ocean tides and currents, the wind, and mass wasting processes.
- List different types of natural geologic hazards, such as earthquakes, volcanoes, sinkholes, tsunamis, beach erosion, flooding, and landslides, and relate how damage from these hazards can be mitigated.
- Describe different types of geologic energy resources and the processes that generate them.
- Discuss the impact of human activities on earth systems, particularly the climate system.

Instructional Methods:

This course is divided into lessons that, for the most part, follow the chapters in the textbook. The first half (lessons 1-8) presents you with some of the fundamental elements of classical and modern geology: rocks, minerals, rock formations, structures, plate tectonics and geologic time. Lesson 9 puts Earth into the larger context of the solar system, and also discusses the effects of Earth processes on its life forms, and vice-versa. The next section (lessons 10-12) --on surficial processes--introduces you to the climate system and geologic processes that are continually acting to sculpt the land surface of the earth. Lesson 13 deals with internal geosystems and their effects, particularly earthquakes. Lesson 14 is an introduction to environmental geoscience: the complex and often-fragile interrelationships between the solid earth, the atmosphere, the oceans, and living things--including humans.

There are fourteen textbook reading assignments in this course, one for each lesson. Some lessons have additional reading assignments and/or videos. Every lesson has a PowerPoint lecture presentation. The best procedure for handling the course material is to begin each lesson by reading the Learning Discussion. Next, listen to and view the lecture PowerPoint presentation. Finally, completing the reading assignments and view the videos (if any). The lecture will provide the main thrust and direction of the lesson with the text and video material being used to amplify, expand, support, and reinforce the lecture.

Following this, proceed to the written assignment. The written assignments are designed to test your understanding of the written, video, and lecture material and to give you an opportunity to apply and evaluate critically the material you have read. You need to show that you actually understand the material.

Therefore, use your own words when asked to discuss a point. If you quote the text verbatim, you will be marked down. Written assignments should be free of serious grammatical and spelling errors.

Some assignments ask for you to draw a sketch of some feature. These do not have to be artistic or detailed; a rough line drawing is fine. There are a number of ways you can create and submit the sketch electronically. First, you need to create a digital image of your sketch. You may use a drawing program to create it. Or, you may draw it by hand and then scan it or take a digital photo of it. Once you have a digital image of your drawing, you may embed it in your document file and upload the whole assignment as a single file. Or, you may upload it as a file separate from the rest of the assignment.

Following completion of the written assignment, take the self-quiz to see how well you have absorbed the information.

As you progress through the course go back occasionally and review what you have covered in prior lessons. This will give you a better grasp of how the concepts and principles fit together. Check to make sure you have met the learning objectives and that you completely understand the discussion section. This will reinforce concepts in your mind, thereby helping you to do well on the examinations.

Course Policies:

Quiz Policy: The Self-Assessment quizzes are graded, but they also serve as a study tool for you to check your knowledge. You may take each quiz multiple times. If some of your answers are incorrect, go back to the textbook, find where you went wrong, and re-take the quiz. Submit your quiz score when you are satisfied it.

Exam Policy: The two exams, midterm and final, are proctored online by Honorlock. On the left hand side of the course home page there is a selection for “HonorLock”. Click on it and there is a place where you can sign up for the exams. If you need additional support follow this link, honorlock.com/support.

Assignment Policy: Some of the assignment questions can be completely answered with only a word or short phrase. Others require longer answers. The suggested number of words is provided with the question. Your answers should display the depth of your understanding and the quality of your thinking. Use complete sentences when asked to “describe” or “discuss” a topic. **Use your own words when asked to discuss a point; do not quote the text verbatim.** If you do, you will be marked down. Written assignments should be free of egregious grammatical and spelling errors. Your answers should be direct and to the point. Extraneous or irrelevant information should be avoided.

UF Policies:

University Policy on Accommodating Students with Disabilities:

Students requesting accommodation for disabilities must first register with the Dean of Students Office at dso.ufl.edu/drc. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or

exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

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 Honor Code at dso.ufl.edu/students.

Netiquette: Communication Courtesy:

All members of the class are expected to follow rules of common courtesy in all electronic communications.

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate. These guidelines for online behavior and interaction are known as netiquette.

Security:

Remember that your password is the only thing protecting you from pranks or more serious harm.

- Don't share your password with anyone
- Change your password if you think someone else might know it
- Always logout when you are finished using the system

General Guidelines:

When communicating online, you should always:

- Treat instructor with respect, even in email or in any other online communication
- Always use your professors' proper title: Dr. or Prof., or if you in doubt use Mr. or Ms.
- Use clear and concise language
- Remember that all college level communication should have correct spelling and grammar
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you"
- Use standard fonts such as Times New Roman and use a size 12 or 14 pt. font
- Avoid using the caps lock feature AS IT CAN BE INTERPRETED AS YELLING
- Limit and possibly avoid the use of emoticons like :) or ☺
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or offensive
- Be careful with personal information (both yours and other's)

Email Netiquette:

When you send an email to your instructor, you should:

- Use a descriptive subject line
- Be brief
- Avoid attachments unless you are sure your recipient can open them
- Avoid HTML in favor of plain text
- Sign your message with your name and return e-mail address
- Think before you send the e-mail to more than one person. Does everyone really need to see your message?
- Be sure you REALLY want everyone to receive your response when you click, "reply all"
- Be sure that the message author intended for the information to be passed along before you click the "forward" button

Students who violate these rules will be warned. Repeated violations may result in removal from the course.

Getting Help:

For issues with technical difficulties for e-Learning in Canvas, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- elearning.ufl.edu

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit distance.ufl.edu/student-complaint-process to submit a complaint.

Grading Policies:

Assignments & Assessments	Points
14 Assignments @ 15 points each	210
14 Self-Assessment Quizzes @ 15 points each	210
Midterm Exam	100
Final Exam	120
Total Points	640

Grading Scale:

The course letter grade will be determined according to the following scale:

Grade	Percentage Range	Points
A	93 - 100%	592 - 640
A-	90 – 92%	573 - 591
B+	87 – 89%	554 - 572
B	83 – 86%	528 - 553
B-	80 – 82%	509 - 527
C+	77 – 79%	490 - 508
C	73 – 76%	464 - 489
C-	70 – 72%	445 - 463

D+	67 – 69%	426 - 444
D	63 – 66%	400 - 425
D-	60 – 62%	381 - 399
F	59% and below	380 and less

Academic Honesty:

“A student shall not represent as the student’s own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.” Source: Regulations of the University of Florida, UF- 4.041. For more information, please go to this link:
regulations.ufl.edu/4.041

“For a violation or violations of the Honor Code, a student may receive any of the sanctions that can be imposed for Student Conduct Code violations, including but not limited to conduct probation, suspension and expulsion as well as any educational sanctions. In addition, students may receive the following:

- a) Assignment grade penalty. The student is assigned a grade penalty on an assignment including but not limited to a zero.
- b) Course grade penalty. The student is assigned a grade penalty in the entire course including but not limited to an ‘E’.”

Source: regulations.ufl.edu/6C1-4.047

Assignments:

There are fourteen lessons in this course. For each lesson there is reading assignment. For some, there are video viewing assignments as well. The student will complete a written assignment and a self-quiz for each lesson.

Exams:

There are two closed-book exams to be taken in this course: a Midterm Exam covering the first half of the course up to and including Lesson 7, and a Final Exam which will cover the second half of the course (lessons 8-14) plus some comprehensive questions covering the first half and combined material. The exam will be in Canvas and will be proctored by Honorlock. A computer with a webcam and built in microphone is required for the exams and a hard-wired, high speed Internet connection is recommended. See the Honorlock Student Handout located in the “Start Here” section of your course for the instructions and technical requirements. No books, notes, cell phones, iPads, calculators, etc., are allowed during the exams.

Disability Accommodations:

The Disability Resource Center in the Dean of Students Office provides students and faculty with information and support regarding accommodations for students with disabilities. Staff at the Disability Resource Center will assist any student who registers as having a disability. Official documentation of a disability is required to determine eligibility for appropriate accommodations.

The professional employees at the Disability Resource Center serve as full-time advocates for students with disabilities ensuring students have physical and programmatic access to all college programs. One of the services provided by the Disability Resource Center includes:

- Testing Accommodations - for further information visit [UF testing accommodations](#)

[Register here with the UF Disability Resource Center](#)

The Flexible Learning Office needs to be notified of any special accommodations required by the student when they begin their course by emailing the Accommodations Letter to lessons@dce.ufl.edu.

Course Deadline and Extension Policy:

Students are allowed 16 weeks, from their date of enrollment, to complete and submit their coursework.

If the student has made sufficient academic progress, which is defined as completing and submitting at least 50% of the coursework and has an extenuating circumstance, the student may petition the instructor for a course extension before the course expires.

If the student has not submitted at least 50% of their coursework and has an extenuating circumstance preventing them from submitting the coursework, a failing grade of "E", "E0" or "E1" will be issued and recorded to the UF Registrar.

Instructors are not required to allow extensions. If a student does receive an extension, an incomplete grade of an "I" will be assigned as an interim grade. When the course is completed, the instructor will initiate the change of grade. After that, the "I" grade will be changed to the student's final course grade on their transcript.

Course Cancels and Course Drops:

A Course Cancel:

The request to cancel a course must be submitted in writing and emailed to learn@dce.ufl.edu within 10 days of enrollment date. It is the student's responsibility to verify that all cancellation requests have been received by the Flexible Learning office within the allotted time. No refunds are granted after 10 days.

Course Drop:

The request to drop a course must be submitted in writing and emailed to learn@dce.ufl.edu within 14 weeks of the date of enrollment. In addition to their own request by email, UF students must have advisor approval to drop a flexible learning course. It is the student's responsibility to verify that all drop requests have been received by the Flexible Learning office within the allotted time. The course grade will appear as "W" on a UF transcript.

Students with disabilities who need to drop a course due to disability-related reasons are permitted to petition for additional drops. Find more information by contacting the [Disability Resource Center](#).

Full Term Withdrawals:

All full-term withdrawals must follow University of Florida policies/ procedures. An approved withdrawal form must be submitted to the [Dean of Student Affairs](#) for review and final approval. Students must also notify the Flexible Learning of this request by learn@dce.ufl.edu.

It is the responsibility of the student to notify Flexible Learning of their approved medical or retroactive withdrawal, so the students' record is updated. [Email](#) to our office a copy of the approval.

Medical Withdrawals: [Medical Withdrawal Process](#)

Retroactive Withdrawals: [Retroactive Withdrawal Process](#)

UF Official Transcripts:

Flexible Learning *advises* that you review your “unofficial transcript” first to ensure your grade(s) is/are posted, prior to ordering the “official transcript”.

Two ways to order a transcript:

1. [Order UF Official Transcripts here](#)
2. If you are unable to order your official transcript online, please contact the [UF Office of the University Registrar](#). In addition, on more information on mailing in a transcript request form by remitting a check or money order.
3. The Registrar's Office hours are Monday-Friday, 8:00 a.m. to 5:00 p.m. and their phone number is 352-392-1374. Persons with hearing impairments can call FRS # 1-800-955-8771 (TDD).

UF Flexible Learning Contact Information:

Email: learn@dce.ufl.edu
Phone: (352) 294-6300
Website: [UF Flexible Learning](#)

Office Hours:

Monday-Friday, except Holidays
8:00am-5:00pm EST