

GEL111 Syllabus - Fall Semester 2016
Introductory Geology

Credits: 4 (lecture & lab) Perquisite: ENG095 or DRE098
Section: N02
Time & Location: Lecture: MW 12:00 - 1:15 PM Room #NB102
Lab: T 12:00 - 1:50 PM Room #NB102

Instructor: Jim Criswell
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Text: Lecture "Essentials of Geology," 12th ed., by Lutgens
Lab "Laboratory Manual in Physical Geology," 10th ed., by Busch & Tasa

Student

Accounts: Your myCFCC account is a single username and password for all of your CFCC network accounts: email, WebAdvisor, Blackboard, campus computer access, and more. The email account provided to you (yourusername@cfcc.edu) is used for all official communication with CFCC instructors and staff. Some information will ONLY be sent by email and not by postal mail, so it is very important that you check this account. This account may also be used for personal mail, but is subject to the CFCC Acceptable Use Policy. Be sure to logout of your account in each service you may have opened (email, Blackboard, etc) when you leave a shared computer, otherwise it is possible for the next user of the computer to access your information.

General Education Competency - Scientific Reasoning and Critical Thinking

Scientific Reasoning:

Students engage in scientific reasoning when they use fundamental scientific concepts and theories to analyze problems, observations, and/or experiments in the life and physical sciences. Students demonstrate scientific reasoning when they:

- Apply appropriate scientific concepts, theories, and language to problems, observations, or experiments
- Utilize scientific data to analyze problems, observations, or experiments
- Apply scientific observations, calculations, and/or measurements to problems or experiments
- Articulate conclusions about problems, observations, or experiments using appropriate scientific concepts and data

Critical Thinking:

Critical thinking is the deliberate process of questioning, evaluating, and responding to problems, scenarios, and arguments in order to reach sound solutions, decisions, and positions. Students demonstrate critical thinking when they:

- Ask pertinent questions that clarify and focus a problem, scenario, or argument
- Evaluate the quantity, quality, and usefulness of information
- Articulate a sound solution, decision, or position based on appropriate standards of reasoning
- Monitor and reflect upon the quality and fairness of their reasoning

Contingency

Plan: If there is an emergency and the instructor or an appropriate substitute does not meet with the class, wait fifteen minutes. Then, everyone in the class should sign a roll sheet and designate someone to take it to the Department Chair or Secretary. Every student has an official CFCC-provided email account which is to be used for all email

ACCOMMODATION OF SPECIAL NEEDS BASED ON DISABILITY:

Any student who requests classroom accommodations because of a disability must present documentation to verify his/her disability. This documentation must be furnished to the Disabilities Service Coordinator and this should be provided prior to requesting accommodation by the instructor. On a confidential basis, the student, disabilities services and the instructor will determine the appropriate accommodations following documentation. Accommodations will be provided in a manner that is consistent with the objectives, outcomes, and academic standards of the course. Absences must not exceed class attendance policy.

Course

Description: This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This is a Universal General Education Transfer Component (UGETC) course.

Course

Outline: A link to the course outline can be found in Blackboard folder "Course Outline."

Food: Food is prohibited in the room during lecture and lab. Drinks will be allowed.

Taping and

Filming: Unless otherwise noted by Student Services, taping and filming of lectures and labs is prohibited.

Attendance

Policy: You can miss no more than 10 hours for the semester (lecture is one hour and the lab is two hours). **If you exceed ten (10) hours of absence, you have failed the class.**

Vacation time that you may have scheduled for the semester (i.e. ski trips, early departures, etc...) will count as absences, so plan accordingly.

Arriving to

Class Late: Class starts at 10:00 AM for both the lecture and the lab. Arriving to class after its official start time will result in half an absence and time will be deducted accordingly (1/2 hour for lecture and one hour for lab). Students arriving 15 minutes after the start of class (lecture or lab) will be charged one whole absence (One hour for lecture and two hours for lab).

Leaving Class

Early: Leaving class early will result in half an absence.

Religious

Observances: Students will be allowed two days of excused absence each academic year for religious observances required by the faith of the student. These excused absences will be included as part of the attendance policy for this class. Students are required to provide written notice of the request for an excused absence by completing the Religious Observance Absence form available in Student Development. The completed form must be submitted to the Vice President of Student Development or his/her designee a minimum of ten (10) school days prior to the religious observance. The Vice President of Student Development or his/her designee will notify the instructor within three (3) school days of receiving the request. Students will be given the opportunity to make up any tests or other work missed due to the excused absence and should work with their instructors in advance of the excused absence to delineate how to make up the missed coursework (N.C.G.S. 115D-5).

Exams: The lecture portion of the course will consist of seven (7) exams, each worth 100 points. The exams will be weighted as follows:

<u>Exam</u>	<u>Points</u>
Mineral	150
Igneous Rocks	150
Plate Tectonics/Volcanic Activity	100
Weathering/Sedimentary Rocks	100
Metamorphic Rocks/Earthquakes/Mountain Building	50
Erosion (Water, Wind and Ice)	50

In addition to these exams, there is also a comprehensive final (100 points). No exams will be dropped.

Except for extenuating circumstances, there will be no make-up exams.

Extenuating Circumstances:

Extenuating circumstances include a death in the immediate family, or being sick or injured. **You will need to provide me with a doctor's excuse or memorial announcement upon the next class in which you are present.**

About those make-up exams

The normal lecture exams will be almost entirely multiple-choice. The make-up exams however, may include fill-in-the blank and/or essay-type of questions, making them more difficult.

Cheating during an exam

If a student(s) is caught cheating on any of the lecture exams (either helping another student with an answer(s) or looking at another student's answer sheet), **that student or students will be expelled from the class with the grade of F.**

Cell Phones & Newspapers:

The use of cell phones and electronic devices of any kind are prohibited during lectures and labs. The same also goes for reading newspapers during class time (lecture or lab). **Any student caught reading a newspaper, or using a cell phone/iPod/etc..., for any reason (i.e., checking for messages or calls, leaving the classroom to answer a text or call, dialing or sending text messages while in class, etc...), will receive a deduction of 1.25 hours (Lecture) or two hours (Lab), and ten (10) points from his/her overall point total for the class.**

If a student has accumulated three offenses, the student will fail the class.

Lab: The lab will consist of scores from four identification exams/quizzes (minerals, igneous rocks, sedimentary rocks, and metamorphic rocks), a topography quiz, and laboratory exercises.

New lab manuals are required. Used lab manuals will have the notes of previous students and quite frequently have missing pages.

Students are also required to complete their own individual work for the lab exercises. The lab exercises will be completed during the specified lab hours.

If you fail to turn in or complete your own individual work on the specified lab exercise, you will not receive credit for the lab. The lab ID exams are usually worth 30 - 45 points, and lab exercises are each worth 10 points. **There are no make-up labs.**

For safety reasons, open toed shoes will not be allowed during labs. Also, during those times when hydrochloric acid will be used for laboratory exercises, safety goggles will be used.

Determining

Lab Score: Lab is worth a total of 100 points (about 12.5% of the course total). The final lab grade will be the percentage of points accumulated from the lab exams and lab exercises over the total possible number of lab points.

Example:

Total points earned (ID exams and exercises):	280
Total points:	300
Percentage:	93%

Total points from lab: $100 * .93 = 93$ points toward course grade

Grading

Scale: Including the exams and lab grade, there is a total of 800 points for the class.

A = 92 - 100 (minimum = 736)

B = 84 - 91 (minimum = 672)

C = 76 - 83 (minimum = 608)

D = 68 - 75 (minimum = 544)

F = 0 - 67

Bonus Points: Almost every exam will have a few bonus questions.

Disclaimer: The instructor reserves the right, acting within the policies and procedures of Cape Fear Community College, to make changes, adjustments, additions and deletions in course content, first day handout, or instructional technique, without notice or obligations.

GEL 120 - Lecture

<u>Week</u>	<u>Topic</u>	<u>Assignment</u>
1 & 2	Introduction. Mineral Lecture	Chap. 3, Chap. 4 (p.109 & 110)
2	Begin Igneous lecture. Test #1: Minerals	Chap. 4
3	Igneous rocks/Plate tectonics	Chap. 4, Chap. 2
4 & 5	Test #2: Igneous Rocks, Volcanism	
6	Test #3: Plate Tectonics/volcanism Weathering	Chap. 6
7 & 8	Sedimentary Rocks	Chap. 7
9	Test #4: Weathering/Sed Rock Metamorphic Rocks	Chap. 8
10	Test #5: Metamorphic Rocks Exam Earthquakes and Earth's Interior	Chap. 9
11	Earthquakes/Earth's Interior - Mountain building Erosion Lecture (running water)	Chap. 11 Chap. 13
12	Test #6: EQ's & Earth's Interior Erosion (groundwater)	Chap. 14
13	Erosion (Glaciers)	Chap. 15
14	Geologic Time	Chap. 18
15	Test review and Test #7: Erosion/Geologic Time	
16	Final Review and Final Exam (Test #8)	

GLG 120 - Lab

Items that hopefully will be covered in the lab:

Identification of common minerals
Identification of common igneous rocks
Identification of common sedimentary rocks
Identification of common metamorphic rocks
Earthquake epicenter location
Relative Dating
Geologic Mapping

Topographic map activities - Reading contour lines, identifying erosional/depositional features, stream types, etc...

ID Exams: Minerals, Igneous Rocks, Sedimentary Rocks, Metamorphic Rocks

There will be an attempt to schedule a field trip to collect fossils during the second half of the semester. It will be strictly voluntary, but will be worth ten (10) bonus points.

Suggested Questions to Answer for Each Chapter:

Chapter 3 - Minerals

Concept Check 3.1 (Page 69): 1, 2
Concept Check 2.3 (Page 74): 1, 2, 3
Concept Check 3.7 (Page 84): 2, 3
Give It Some Thought (Page 92): 4, and 7 (Parts a through e)

Chapter 4 - Igneous Rocks and Intrusive Activity

Give It Some Thought (Page 124): 1 - 5, 9, and 10

Chapter 2 - Plate Tectonics

Concept Check 2.2 (Page 38): 3, 4
Concept Check 2.6 (Page 47): 2, 4
Give It Some Thought (Page 64): 2 - 4 (All parts),

Chapter 5 - Volcanoes and Volcanic Hazards

Concept Check 5.2 (Page 131): 1, 2, 5
Concept Check 5.3 (Page 134): 1, 5
Concept Check 5.5 (Page 137): 1, 2
Concept Check 5.6 (Page 139): 1, 2
Concept Check 5.8 (Page 141): 2, 3

Chapter 6 - Weathering

Concept Check 6.1 (Page 163): 2
Concept Check 6.2 (Page 165): 1
Concept Check 6.3 (Page 167): 1, 3
Concept Check 6.4 (Page 170): 1, 2

Chapter 7 - Sedimentary Rocks

Concept Check 7.1 (page 186): 1
Concept Check 7.3 (Page 192): 1, 2, 4
Concept Check 7.4 (Page 196): 1
Concept Check 7.6 (Page 199): 3
Concept Check 7.7 (Page 200): 1

Suggested Questions to Answer for Each Chapter - Cont'd

Chapter 8 - Metamorphic Rocks

Concept Check 8.2 (Page 222); 2, 3
Concept Check 8.3 (Page 225); 2, 4
Concept Check 8.4 (Page 228); 1, 4
Give It Some Thought (Page 236); 1

Chapter 11 - Mountain Building

Concept Check 11.1 (Page 294); 3, 6
Concept Check 11.2 (Page 298); 1, 3
Concept Check 11.3 (Page 302); 1, 2, 3
Concept Check 11.5 (Page 306); 2
Concept Check 11.6 (Page 311); 4

Chapter 14 - Groundwater

Concept Check 14.2 (Page 373); 2, 3
Concept Check 14.3 (Page 374); 1, 2
Concept Check 14.7 (Page 382); 2, 3
Concept Check 14.8 (Page 386); 2, 3
Concept Check 14.9 (Page 390); 1, 3

Chapter 18 - Geologic Time

Concept Check 18.1 (Page 477); 3, 4
Concept Check 18.2 (Page 480); 2
Concept Check 18.3 (Page 483); 3
Concept check 18.5 (Page 489); 3, 4
Give It Some Thought (Page 492/493); 1, 3, 4, 5, 10

Chapter 9 - Earthquakes and Earth's Interior

Concept Check 9.2 (Page 246); 2, 3
Concept Check 9.9 (Page 263); 1
Concept Check 14.4 (Page 342); 2, 3
Give It Some Thought (Page 266); 2, 8

Chapter 13 - Running Water

Concept Check 13.3 (Page 347); 3
Concept Check 13.4 (Page 350); 2
Concept Check 13.5 (Page 352); 1, 3
Concept Check 13.6 (Page 356); 1, 3, 5
Give It Some Thought (Page 364); 2, 6

Chapter 15 - Glaciers and Glaciation

Concept Check 15.1 (Page 399); 1,
Concept Check 15.2 (Page 402); 5
Concept Check 15.3 (Page 406); 1, 4
Concept Check 15.4 (Page 411); 1, 7
Concept Check 15.6 (Page 418); 2, 3
Give It Some Thought (Page 420); 1, 7