

"Civilization exists by geologic consent, subject to change without notice"

—Will Durrant, Historian

- Lecture: Monday, Wednesday, Friday, 9:00 - 9:50 129 Grote Hall
- Instructor: J. W. Mies, Ph.D. 105 Bretske Hall
 e-mail: Jonathan-Mies@ utc.edu Office phone: 425-4606
 web page: <http://www.utc.edu/Faculty/Jonathan-Mies/>
- Text: Marshak, Stephen, 2005, *Earth: Portrait of a Planet*, 2nd edition, W.W. Norton & Company, New York, 748 p., ISBN 0-393-92502-1
 web page: <http://www2.wwnorton.com/college/geo/earth2/home.asp>
- Prerequisite: 2 years of high school algebra or MATH 106
- Corequisite: Physical Geology Lab (Geology 181), or permission of the department head.
- Hours: 3 credit hours / 3 contact hours
- General Education This course is a four-hour *natural sciences laboratory course* and fulfills a general education requirement in that category (SL). See Degree and Graduation Requirements in the UTC Undergraduate Catalog.
- IMPORTANT: Both lecture (Geology 111) and lab (Geology 181) must be taken in order to receive general-education credit (4 hrs). Lecture and Lab should be taken concurrently, i.e. as corequisites.**
- Description: Geology 111 is an introductory course in geology with emphasis on geologic materials (e.g. minerals, rocks), geologic processes and events (e.g. mountain building, earthquakes, volcanic activity), and geologic features (e.g. oceans, landforms). Topics are discussed in the contexts of geologic time, plate tectonics, and historical developments.
- Geology 111 (with Geology 181) is a prerequisite for many of the geology courses offered at UTC. Students that are interested in taking geology courses beyond Geology 111, are encouraged to take *Historical Geology* (Geology 112 and Geology 182, lecture and lab), which focuses on the science of interpreting Earth's history and challenges students to apply and expand upon principles and knowledge of physical geology.
- Geology 111 (with Geology 181), Geology 112 (with Geology 182), Geology 116, *Current Geologic Perspectives*, and Geology 225, *Oceanography*, are general education courses for the natural science requirement.

TENTATIVE LECTURE SCHEDULE

Date	M	W	F	Topic	Chapter
Jan	7			Introduction to geology and geologic time	Prelude
		9		The universe and its origin, origin of Earth	1
			11	Origins (cont'd), Differentiated Earth	1, 2
	14			Earth (cont'd), Plate tectonics	2,
		16		Plate tectonics - history and evidence	3
			18	Plate tectonics - evidence (cont'd), dynamics	3, 4
	21			HOLIDAY (no class)	3, 4
		23		Plate tectonics - dynamics (cont'd)	4
			25	Plate tectonics - dynamics (cont'd), review	4, 1-4
	28			EXAM #1	Prelude, 1 - 4
		30		Minerals	5
Feb			1	Minerals (cont'd)	5
	4			Minerals (cont'd), rocks, rock cycle	5, Interludes A & B
		6		Rock cycle, igneous rocks	Interlude B, 6
			8	Igneous rocks (cont'd)	6

TENTATIVE LECTURE SCHEDULE (CONT'D)

Date	M	W	F	Topic	Chapter
Feb			8	Igneous rocks (cont'd)	6
	11			Igneous rocks (cont'd), Weathering	6,7
		13		Weathering and sedimentary rocks	7
			15	Sedimentary rocks (cont'd)	7
18				Sedimentary rocks (cont'd), review	7, Int. A & B, 1 - 7
		20		EXAM #2	5 - 7, Int. A & B, 1 - 4
			22	Sedimentary structures and environments	7
25				Sed. structures and environments (cont'd)	7
		27		Metamorphism and metamorphic rocks	8
			29	Metamorphic rocks (cont'd)	8
Mar	3			Metamorphic rocks (cont'd)	8
		5		Volcanoes	9
			7	Volcanoes (cont'd)	9
10				SPRING BREAK, no class	
		12		SPRING BREAK, no class	
			14	SPRING BREAK, no class	
17				Volcanoes (cont'd)	9
		19		Earthquakes	10
			21	HOLIDAY (no class)	10
24				Earthquakes (cont'd)	10
		26		Earthquakes (cont'd)	10
			28	EXAM #3	7 - 10, 1 - 7
31				Imaging Earth's interior, seismic waves	Interlude C
Apr		2		Earth's interior (cont'd), deformation of rock	Interlude C, 11
			4	Deformation (cont'd), geologic structures	11
7				Geologic structures (cont'd)	11
		9		Geologic structures (cont'd)	11
			11	Geologic time - relative age	12
14				Geol. time - rel. age (cont'd), numerical age	12
		16		Numerical age (cont'd), water	12, Interlude E, 19
			18	Hydrologic cycle, groundwater	Interlude E, 19
21				Groundwater (cont'd), review	19, 1 - 12, Int. C, E
			25	FINAL EXAM Friday, April 25, 8:00 - 10:00	11 - 12, Int. C, E, 19, 1 - 10

GRADES

The *final numerical grade* for this class will be computed as follows.

17 %	Exam 1 (January 28)	_____	x 0.17 = _____.
21 %	Exam 2 (February 20)	_____	x 0.21 = _____.
22 %	Exam 3 (March 28)	_____	x 0.22 = _____.
25 %	Final Exam (April 25, 8:00 - 10:00)	_____	x 0.25 = _____.
10 %	Misc. assignments and quizzes	_____	x 0.10 = _____.
5 %	Attendance and participation	_____	x 0.05 = _____.
	TOTAL (Final numerical grade)	_____	= _____.

The *final letter-grade* for this class will conform to the following scale, based upon the computed *final numerical grade*.

F≤59.9, D=60-69.9, C=70-79.9, B=80-89.9, A=90-100

Students' writing, which will be required for exams and miscellaneous assignments, will count for no less than 10 % of the final grade in this class.

EXAMS

Exams will be comprehensive, meaning that each exam will cover all material that precedes it. The second, third, and fourth (final) exams will emphasize the material covered since the previous exam. For example, EXAM #3 will emphasize material from the later part of chapter 7 through chapter 10, but will also include questions related to chapter 1 through the first part of chapter 7, i.e. material covered on the first 2 exams. (See Lecture Schedule.)

Exams will include questions of multiple-choice, matching, and/or fill-in-the-blank formats, may require simple computation, and may use SCANTRON automated grading. There will also be at least one question that requires a short written answer (several well-composed sentences, plus pertinent diagrams) and counts for no less than 10% of each exam.

Make-up exams will be provided in only the most adverse circumstances (e.g. serious illness). Documentation of the circumstance (e.g. doctor's note) may be required.

Arrangements for a make-up exam must be made with the instructor prior to the scheduled time of the regular exam.

In the event that a student is provided with a make-up exam, he or she should anticipate that it is likely to be different from the regular exam.

OTHER POLICIES

Students are expected to attend class regularly and to participate in class discussions. Attendance and participation will be considered in the final grade. (See *Grades* .)

Students are expected to be prepared for class, attentive, and respectful of others. To this end, there will be no use of cell phones, laptop computers, or similar devices during class.

Students are expected to be punctual.

Students that arrive late for an exam may not be permitted to take the exam.

Assignments are to be turned in on time. Late assignments will be accepted in only the most adverse circumstances (e.g. serious illness or accident). Documentation of the circumstance (e.g. doctor's note or police report) may be required.

All students are expected to follow the UTC honor code.

UTC ONLINE (AKA BLACKBOARD)

Some aspects of this course are available through UTC's online course delivery system (Blackboard), which can be accessed at:

<http://utconline.utc.edu>

Your user name for logging on to the system is your UTCID (mix of letters and numbers), which appears on your Mocs card. Your password for Blackboard is the same as your password for your UTC e-mail and for your access to the Lupton Library databases. If you change your password in Blackboard, you also change your password on both of these other systems. If you forget your password, follow the "Forgot Password" link from the UTC web site (<http://www.utc.edu/>) or the Blackboard login page (<https://bb3.utc.edu/webapps/login/>).

Documentation on student use of Blackboard is available at:

<http://utconline.utc.edu/online/bbtutorials.php>

EMAIL (firstname-lastname@utc.edu)

To enhance student services, the University will use your UTC email address (firstname-lastname@utc.edu) for communications. Please check your UTC email on a regular basis. If you have problems with accessing your email account, contact the Help Desk at 423-425-2676.

ATTENTION: If you are a student with a disability and think that you might need special assistance or special accommodation(s) in this class or any other class, call the Office for Students with Disabilities / College Access Program at 425-4006 or come by the office, 110 Frist Hall.

This syllabus is subject to minor changes.