

GEO 240-Intro. To Geology (3 Credits) and ENS 241-Physical Geology (4 Credits) – Spring 2014

<p>Professor: Dr. Michael Guebert Contact: mcguebert@taylor.edu Phone: 998-5332 Office Hours: 2-3pm MW, or by appointment (email me) Office: 111 Randall Environmental Center (RES) Class Times: MW 3:00-3:50PM (002 MMVA) LAB Times: THURSDAYS 8-10(241); 10-12; 12-2; 2-4 (122 RES)</p>	<p>Lab Teaching Assistants: Mr. Ben Blocher (TA; 8am, 10am) ben_blocher@taylor.edu Ms. Katharine Hogan (TA; 12, 2pm) katharine_hogan@taylor.edu</p>
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Required Texts: Tarbuck and Lutgens, 2012. *Essentials of Geology, 11th Ed.* Prentice Hall Publisher.
 Busch, (ed.), 2000. *Laboratory Manual in Physical Geology 5th Ed.* Prentice Hall Publisher. (Provided in class)

Course Catalog Description: A general introduction to the Earth’s internal and external physical, dynamic systems. Topics include occurrence and formation of minerals and rocks, processes that shape the earth’s surface, and the internal structure and dynamics that lead to plate tectonics and crustal deformation. Special emphasis is place on the environmental aspects of humans’ interaction with the Earth.

Big Ideas of the Course: To provide opportunities for students to:

1. Gain an appreciation for the awe, majesty, and wonder of God’s creation, the Earth.
2. Understand the properties, processes and formative history of Earth through text, images, maps, laboratory and field.
3. Develop skills of scientific literacy and inquiry regarding common and unique events of geologic interest.
4. Appreciate the importance and prevalence of geology around us, especially in locations of personal interest.
5. Increase awareness of the key roles of geologists in science and society, and the current opportunities for students.
6. Refine a Christian perspective on issues and duty relating natural (especially geological) sciences and the Christian faith, such as: origins, age of the Earth, evolution, and environmental stewardship...a responsibility for all Christians!

Course Format: The course consists of two 50-minute classes per week (including lecture, discussion, and group activities) and one two-hour (or three-hour for ENS 241) lab per week (investigative work in pairs). Lab sessions will be correlated with the class topics. The classes will consist of summary presentations closely following the material in the text, and will also include slides and videos and discussion of related questions and issues not found in the text. There will be opportunity for discussion of the topics and the implications for society and the Christian.

Students are expected to invest 5-10 hours per week outside of class to master the material. (See “tips” below)

Evaluation Methods:

	<u>GEO 240 (ENS 241)</u>
Exams (4 scores @100 points each):	400 points
Quizzes (count highest 10 scores @ 10 points each):	100 points
Laboratory (count highest 10 scores @ 20 points each; 5pts bonus for each lab beyond 10):	200 points
Genesis and Geology paper (see schedule and Bb)	100 points
Hometown Geology poster (see schedule and Bb)	100 points
Field Trip report (required trip to southern Indiana, near end of semester, see schedule)	50 points
Attendance/Participation (see next page)	50 points
(ENS 241-required “lab 3 rd hour” (top 10 @ 20 each; GEO 240)	(200 points)
TOTAL	1000 (1200) points

Weighted Grade %	≥93.0	≥90.0	≥87.0	≥83.0	≥80.0	≥77.0	≥73.0	≥70.0	≥67.0	≥63.0	≥60.0	<60.0
Letter Grade	A	A ⁻	B ⁺	B	B ⁻	C ⁺	C	C ⁻	D ⁺	D	D ⁻	F

Tips on Studying: *Before class*, preview the *learning objectives* and the assigned pages for each topic looking at figures and captions, section headings, and at boldface words. *After class*, read the appropriate text more thoroughly, filling in the gaps of your class notes so that you can answer each of the content learning objectives.

Web Chapter Reviews are available for students to review for the exams at <http://cw.prenhall.com/lutgens>.

Explanation of Evaluation Instruments:

Exams will include 30 multiple-choice and 4 short-answer questions over the material from the previous chapters. Questions will be based on the content learning objectives for each chapter, posted on Blackboard.

Quizzes Five-question multiple-choice quizzes will be administered at the beginning of Wednesday class periods. Questions will be selected from material discussed in the previous Monday class period. **(Don't miss or be late!)**

Laboratory Each lab exercise will be due at the end of the lab period or by arrangement with the TA. Your work will be graded on comprehension and thoughtfulness and posted by the next lab period. Top 10 scores will be included in the lab scores. (Each additional lab may count as 5pts extra credit.) No make-ups after one week. Contact your TA.

Genesis and Geology Paper Each student will read several articles and prepare pre-write and a reflective essay on a faith/learning integration topic related to geology. (See the assignment on Blackboard).

Hometown Geology Poster Each student will complete research on the geology of a location of personal interest and prepare a (PowerPoint) poster to share with classmates in the last lab period. (See assignment on Blackboard).

Field Trip Report Each student will attend and complete a report on the trip to southern Indiana (see schedule).

Attendance Points are deducted for class periods missed in excess of three unexcused absences. If possible, please contact the instructor prior to any excused absence. All work must be completed for excused absences. Participation is expected, such as raising questions, discussion, listening, sharing with peers, & classroom etiquette.

"Lab 3rd hour" Students in ENS 241 will participate in a variety of special exercises and/or classes during a 3rd hour of lab on Thursdays. The topics are listed on the schedule under the weekly lab assignment.

Extra Credit Extra labs (beyond first 10) and a written report (one-page, single-spaced) for selected Environmental Graduate Seminars (4:00 Wednesdays, see schedule on Blackboard) are extra credit opportunities for all students.

Each is worth up to 5 points on the final grade. Student initiatives for extra credit are welcome before week 12.

Academic Integrity: In short, a student violates academic integrity when he or she claims credit for any work not his or her own (*words, ideas, answers, data, program codes, music, etc.*) or when a student misrepresents any academic performance. This constitutes a serious violation of academic integrity and scholarship standards at Taylor that can result in substantial penalties, at the sole discretion of the University, including but not limited to, denial of credit in a course as well as dismissal from the University. Students found collaborating on individual exercises, sharing personal information, falsifying assignments, committing plagiarism or any other unethical activities shall be disciplined in an appropriate manner. Students are expected to abide by the LTC in matters related to this course.

Plagiarism Definition: In an instructional setting, plagiarism occurs when a person presents or submits work that includes someone else's ideas, language, or other (not common-knowledge) material without appropriate credit to the source. **Plagiarism Policy:** Taylor distinguishes between minor plagiarism infractions (citing, but not appropriately) and major infractions (copying text from another student or from online with no attempt to cite). It is important to note that, although collaboration and getting feedback on one's own writing are essential parts of the writing process, having a text altered **for** the writer is not appropriate.

In this course, if you have a minor plagiarism infraction, I will talk with you and give you an opportunity to revise your work (your revised grade will be reduced by 20%). If you have a major plagiarism infraction, I will talk with you and then proceed through the plagiarism incident report process. You will receive a zero on the plagiarized assignment. If you plagiarize a second time, you will fail the course.

Please see the catalogue for a complete statement: http://www.taylor.edu/academics/registrar/policy_academic_integrity.shtml

Academic Resources: Taylor provides resources to assist you in your studies and learning..

1. **Academic Enrichment Center** provides individualized academic skills help: aecenter@taylor.edu
2. **Peer tutoring services** provides free help to students in most content areas: drnurkalla@taylor.edu
3. **Support services** for students with disabilities: edwelch@taylor.edu
4. **The Writing Center** provides personalized writing assistance to students in any course: bbird@taylor.edu
5. **Zondervan Library:** zonlib@taylor.edu

Recommended General Education course to complete your Science requirement:

ENS 200-Environment and Society (3-hr) or ENS 231-Intro to Environmental Science (4-hr) provides an introduction to ecological principles and impact of humans on the environment. Issues include population dynamics, food systems, natural resources, pollution and environmental ethics. The combination of the above course and this current geology course (GEO 240, 3-hr or ENS 241, 4-hr) will complete your 7-hr Gen Ed. Science requirement! (and complete 2 of 5 courses for an Environmental Science minor!)