

**GEOL 1301 – Section 003  
EARTH SYSTEMS  
Fall 2016**

**Instructor:** Taylor Hughlett, Ph.D.

**Mon. & Wed. 5:30– 6:20 p.m., Geosciences 100**

**Course Description:** Fundamentals of Geology using a “systems approach.” Students will learn geological concepts, principles, and related scientific terms. Students will learn about active geologic processes and the driving force of plate tectonics. Students will be exposed to the principles behind the formation of different rock types, and the nature of the earth’s interior. (3 credit hours with required lab).

**Student Learning Outcomes:** On completion of the course it is expected that: (I) The students will be able to describe the structure of the earth. (II) The students will be able to identify the characteristics of different rock types, how they are formed, and what minerals they are composed of. (III) The students will be able to explain plate tectonics and how associated processes lead to the cycling of rock. (IV) The students will be able to understand the concept of the geosphere as a set of distinct systems. (V) The students should be able to synthesize what they learn in the lectures and apply this knowledge to the problems they will be presented with in the Laboratory section of the course.

**Required Textbook:**

Launchpad with Understanding Earth, 7th Edition, J. Grotzinger & T Jordan, W.H. Freeman and Company, NY, ISBN-13: 978-1464138744

**Office Hours:** Monday, 4-5 p.m. or by appointment, Geosciences room 117

**Email:** [taylorh@uta.edu](mailto:taylorh@uta.edu)

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**Course Policies and Grading**

**Attendance:** You are expected to attend any and all lecture sessions at their given time and location as specified on MyMav and this syllabus. Attendance will be taken randomly through the course of the semester, and a lack of attendance may influence the final grade.

If you are unable to attend lecture, you are expected to get the material covered and any notes from your peers. I will be available to answer specific questions regarding covered material, but I am not available to do an entirely new lecture for you privately. Make friends with those sitting around you, form a study group. It will help you in this course.

**Classroom Disruption:** Classroom disruptions will not be tolerated. You need to make sure you will be in class on time, and if for some reason you will be late, please enter the room as quietly as possible so as not to disturb students who are trying to listen to the lecture.

**Lecture Material:**

All lecture material will be posted on Blackboard. Additionally, your Syllabus and Schedule are available on Blackboard for you to review. If you have a question about course policy, what will be covered in the course, when my office hours are, or anything else, please consult the syllabus and schedule first before emailing me.

**Exams:**

Four (4) exams will be given through the course of the semester, and one final exam will be given on the day of the final. All exams as well as the final will be true/false and multiple choice.

Exams must be taken at the scheduled time. Make-up exams will be given only in the case of illness or family emergency with supporting documentation. Students who do not take an exam receive zero points as a grade on that exam.

**Homework:**

Homework assignments will be administered through Launchpad and are due on Sundays by 11:59 pm. There will be additional extra credit exercises that will be announced in class or posted in Blackboard.

**Grading and Grade Calculation:**

<u>Grading:</u>	Lab Portion:	25% of course
	Lecture Portion:	75% of course
	Lecture Portion:	
	Homework	20%
	Exams	60%
	Final Exam	20%

**Final grade calculation:**

$0.25 \times \text{lab} + 0.75 \times (0.20 \times \text{homework} + 0.60 \times \text{exams} + 0.20 \times \text{final exam})$

Grades must be either obtained in person or from the online system; they will not be released over the phone or by email per UTA policy.

**Expectations for Out-of-Class Study:** A general rule of thumb is this: for every credit hour earned, a student should spend 3 hours per week working outside of class. Hence, a 3-credit course might have a minimum expectation of 9 hours of reading, study, etc.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX:** The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Lab Safety Training:** [Required for laboratory courses in the Colleges of Engineering and Science] Students registered for this course must complete all required lab safety training prior to entering the lab and undertaking any activities. Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., through the following August) and must be completed anew in subsequent years. There are no exceptions to this University policy. Failure to complete the required training will preclude participation in any lab activities, including those for which a grade is assigned.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact

university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as “lecture,” “seminar,” or “laboratory” shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student’s feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities. More details: UT Arlington Procedure 7-6: Emergency/Fire Evacuation Procedures (<https://www.uta.edu/policy/procedure/7-6>).]

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Writing Center:** The Writing Center, 411 Central Library, offers individual 40 minute sessions to review assignments, *Quick Hits* (5-10 minute quick answers to questions), and

workshops on grammar and specific writing projects. Visit <https://uta.mywconline.com/> to register and make appointments. For hours, information about the writing workshops we offer, scheduling a classroom visit, and descriptions of the services we offer undergraduates, graduate students, and faculty members, please visit our website at [www.uta.edu/owl/](http://www.uta.edu/owl/).



### **START STRONG Freshman Tutoring Program**

University Tutorial and Supplemental Instruction (UTSI)/University College

All first time, first-year students can receive six FREE hours of tutoring for this course and other selected subjects for this semester.

Students must sign up and complete their first hour of tutoring by February 12th.

To sign up, visit UTSI in 205 Ransom Hall/University College.

Upon completion of your first tutoring appointment, you will receive five hours of additional free tutoring.

Flexible tutoring hours are available from 7:00am – 9:00pm, seven days a week in the Central Library.

All tutors receive extensive training. Find out more at [www.uta.edu/startstrong](http://www.uta.edu/startstrong)

**Emergency Phone Numbers** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.

For non-emergencies, contact the UTA PD at 817-272-3381

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**Librarian to Contact:** Antoinette Nelson ([nelsona@uta.edu](mailto:nelsona@uta.edu))

Other important library information

Library Home Page .....	<a href="http://www.uta.edu/library">http://www.uta.edu/library</a>
Subject Guides .....	<a href="http://libguides.uta.edu">http://libguides.uta.edu</a>
Subject Librarians .....	<a href="http://www.uta.edu/library/help/subject-librarians.php">http://www.uta.edu/library/help/subject-librarians.php</a>
Database List .....	<a href="http://www.uta.edu/library/databases/index.php">http://www.uta.edu/library/databases/index.php</a>
Course Reserves .....	<a href="http://pulse.uta.edu/vwebv/enterCourseReserve.do">http://pulse.uta.edu/vwebv/enterCourseReserve.do</a>
Library Tutorials .....	<a href="http://www.uta.edu/library/help/tutorials.php">http://www.uta.edu/library/help/tutorials.php</a>
Connecting from Off - Campus ..	<a href="http://libguides.uta.edu/offcampus">http://libguides.uta.edu/offcampus</a>
Ask A Librarian .....	<a href="http://ask.uta.edu">http://ask.uta.edu</a>

## Schedule GEOL 1301 Fall 2016

Week	Sessions	Topics*	Chapter
1	Aug. 29	Course Introduction	-
	Aug. 31	The Earth System	1
2	Sept. 5	Earth Minerals: Minerals and Rocks	3
	Sept. 7	Earth Minerals: Minerals and Rocks	3
3	Sept. 12	Igneous Rocks: Solids from Melts	4
	<b>Sept. 14</b>	<b>Exam 1</b>	<b>1,3,4</b>
4	Sept. 19	Sedimentation: Rocks Formed by Surface Processes	5
	Sept. 21	Plate Tectonics	2
5	Sept. 26	Plate Tectonics	2
	Sept. 28	Metamorphism: Alteration of Rocks by Temperature and Pressure	6
6	Oct. 3	Metamorphism: Alteration of Rocks by Temperature and Pressure	6
	Oct. 5	Deformation: Modification of Rocks by Folding and Fracturing	7
7	Oct. 10	Deformation: Modification of Rocks by Folding and Fracturing	7
	<b>Oct. 12</b>	<b>Exam 2</b>	<b>2, 5, 6, 7</b>
8	Oct. 17	Clocks in Rocks: Timing the Geologic Record	8
	Oct. 19	Clocks in Rocks: Timing the Geologic Record	8
9	Oct. 24	Volcanoes	12
	Oct. 26	Volcanoes	12
10	Oct. 31	Earthquakes	13
	<b>Nov. 2</b>	<b>Exam 3</b>	<b>8, 12, 13</b>
11	Nov. 7	The Climate System	15
	Nov. 9	The Hydrological Cycle and Groundwater	17
12	Nov. 14	Stream Transport	18
	Nov. 16	Winds and Deserts	19
13	<b>Nov. 21</b>	<b>Exam 4</b>	<b>15, 17, 18, 19</b>
	<b>Nov. 23</b>	<b>NO CLASS</b>	<b>-</b>
	<b>Nov. 25-27</b>	<b>THANKSGIVING HOLIDAY</b>	<b>-</b>
14	Nov. 28	Coastlines and Ocean Basins	20
	Nov. 30	Glaciers: The Work of Ice	21
15	Dec. 5	Human Impact on the Environment	23
	Dec. 7	Review/Inclement Weather Day	-
16	<b>Dec. 14</b>	<b>FINAL EXAM</b>	<b>20, 21, 23</b>

*\*This schedule, topics covered in exams, exam dates, and overall course content is subject to change at any time at the professor's discretion to better suit the educational needs of the students.*

*\*\*Instructor reserves the right to give an exam remotely in case of inclement weather.*