

GEOLOGY 1301 002**FALL 2026****EARTH SCIENCES I (CRN 14013)****SYLLABUS****LECTURE: F2F Room STEM RM 242****DR. Rex E Crick****Instructor:** Dr. Rex E CrickOffice: **STEM 375**Lecture: TR from 11 AM – 12:15 PM @STEC BUILDING **RM STEM 242**Office Hours: MW from 10 am – 11 am (or by appointment) **STEM RM 375**

Office Tel. #: 210-784-2818

Email: rex.crick@tamusa.edu**Course Description:**

This is an interdisciplinary earth science course, incorporating aspects of mathematics, chemistry, biology, and physics to study geological, oceanic, and atmospheric processes. The broad questions examined in this course are the **Learning Outcomes** listed below. Plate tectonics, earth materials, landforms, structures, climate, and natural resources are the major topics of study. Emphasis will be on the observations and hypotheses used to interpret earth system processes. This course meets the standards for the 'Life and Physical Sciences' category of courses under the core curriculum.

Learning Outcomes:

1. Explain the process or scientific discover and the place of geological sciences is our lives.
2. Explain the current theories concerning the origin of the Universe and of the Solar System.
3. Explain the place of Earth in the Solar System and its relationships with other objects in the Solar System.
4. Relate the origin and evolution of Earth's internal structures to its resulting geologic systems, including Earth materials and plate tectonic activities.
5. Explain the operation of Earth's geologic systems and the interactions among the atmosphere, the geosphere, and the hydrosphere, including meteorology and oceanography.
6. Explain the history of the Earth including the evolution of earth systems and life forms.

Items to be accessed and completed on or before August 31st**1) Acquisition of Respondus Browser and Respondus Monitor (Welcome Module)**

TAMSUA requires Respondus Lockdown Browser and Respondus Monitor for all quizzes and exams in courses where proctoring is difficult. GEOL 1301 is one such course. Free access to Respondus Lockdown Browser and Monitor at this LINK . All problems linked to Respondus should be directed to IT/eLearning Helpdesks.

a) Carefully read A&M Test Taking Guidelines (This Module)

b) **Take A&M Test Taking Guidelines quiz** (This Module)

i. Closed book quiz (Respondus proctored **but** with unlimited attempts through Aug 31st) [**1% Course Grade**]

2) Take Syllabus Quiz before August 31st (requires following resources) [1% Course Grade]

a) Requires functioning Respondus Lockdown Browser.

b) See Course Syllabus & Student Resources Page Within Welcome Module. Official TAMIU syllabus for the course.

c) See Dr. Crick's Course Syllabus and Course Schedule (Welcome Module)

d) See Rule #7 (Welcome Module)

e) Closed book (**honor system**) (Respondus proctored **but** with unlimited attempts through Aug 31st)**3) Complete Academic Integrity Module with a Score $\geq$ 95% before Aug 31st [5.0% Course Grade]**

All campuses of the Texas A&M System are committed to the maintenance of the highest standards of integrity and ethical conduct of its students. The level of ethical behavior and integrity is monitored throughout the course. Scores <95% receive no points.

To elevate each student's awareness of the seriousness of academic misconduct at the University and its

importance to TAMUSA, GEOL 1301 students are required to access the **Academic Integrity Module** within the Welcome Module (1st Module on the class homepage). Once there, complete the following:

- a) Read *Academic Misconduct at A&M-SA with Specifics and Consequences for GEOL 1301, GEOL 1101, and GEOL 1102*
- b) View PDF *Academic Integrity at A&M-SA*.
- c) Take quiz *Knowledge of Academic Integrity Requirements at A&M-SA*. Closed book (**honor system**) (Respondus proctored but with unlimited attempts through Aug 31st)

4) BLACKBOARD ULTRA: <https://tamiu.blackboard.com/> (Welcome Module)

Blackboard will be used to communicate information about the course. Course documents, lecture material, videos, and links will be available on blackboard for downloading, viewing, or printing. Students will use Ultra to

- a) Access course homepage, download Answer Sheets for lab assignments, upload completed Answer Sheets
- b) Access and send course messages
- c) Check the status of performance in the course.

5) Become Familiar with the Required Text:

Required Textbook and Online Class Resource (2 SEMESTER BOOK: WORKS FOR GEOL 1301 & GEOL 1302)

1. ***Understanding Earth*** by Grotzinger and Jordan, 8th edition (MacMillan Publishing). ISBN-10:1464138745 ISBN-13:9781464138744
2. ***Understanding Earth*** by Grotzinger and Jordan, 8th edition (MacMillan Publishing), **E-BOOK**. ISBN-9781319324643
3. Access through Campus Bookstore and Publisher MacMillan:
<https://store.macmillanlearning.com/us/product/Understanding-Earth/p/131905532X>

6) EPSC 1301-002 Course Schedule FALL 2026

Course schedule: The lecture topics, readings, and exam dates are listed on the Course Schedule. Lecture topics and **will** change as necessary to accommodate Earth; **exam dates will not.**

Geology 1301 001 Fall 2026 Course Schedule: TR 1100-1215

Module ¹	Date ²	Topic ³	Chapter ⁴	Homework Due ^{5,6}	✓
1	8/25	Introduction to Course & The Earth System	1	8/29 [1A]	
		The Scientific Method & Eratosthenes	+	8/29[1B]	
		A&M Test Taking Guidelines quiz	+		
		Syllabus and A&M Rule 7 Quiz⁷ (1.0% course grade)	+	8/29	
		Academic Integrity Quiz⁸ (5.0% course grade)	+	8/29	
2	9/01	Plate Tectonics: Its Discovery and History	2	9/05 [2]	
*****	9/03	In-Class Credit Project #1: Earth's Circumference⁹		9/03 (1215)	
3	9/08	Earth Materials: Matter, Minerals, and Rocks	2/3	9/12 [3]	
*****	9/9/26	CENSUS DATE			
4	9/15	Igneous Rocks – Where do they come from?	4	9/19 [4A]	
		Igneous Rocks – Intrusions & Extrusions (5:119-129)	4/5	9/19 [4B]	
*****	9/17	In-Class Credit Project #2: Sea Floor Spreading⁹	+	9/17 (1215)	
		Exam Review Online in Exam I Module¹⁰			
*****	9/22	EXAM I [(Weeks 1-4; Chapters 1-4/5(119-129)]¹¹	EXAM I	1100-1215	
5	9/29	Sedimentation – How Earth's History Works?	6	10/03 [5]	
		Sediment to Sedimentary Rock – Earth's History Book	6		
6	10/06	Causes of Metamorphism	7	10/10 [6]	
		Types of Metamorphism	7		
7	10/13	Clocks in Rocks and Earth Time	9	10/17 [7]	
		Relative Earth Time vs Absolute or Radiometric Time	9		
8	10/20	Greenhouse Earth: A necessary condition for life	12	10/24 [8]	
*****	10/22	In-Class Credit Project #3: Numeric Dating⁹	+	10/22 (1215)	
	10/22	Exam Review Online in Exam II Module¹⁰			
*****	10/27	EXAM II (Chapters 6, 7, 9, 12)¹¹	EXAM II	1100-1215	
9	11/03	Civilization's Role: Biosphere is part of the Geosystem!	13	11/07 [9]	
		Where do humans go in 2300	13		
10	11/10	Global Change: Real or imagined? What does Earth say?	14	11/14 [10]	
		Types of Change	14		
		STUDY DAY – NO CLASSES			
11	11/17	Geobiology, paleobiology & paleobiogeography	22	11/21 [11]	
		History of Life Evolutionary Radiations and Mass Extinctions	22		
12	11/24	Early History of the Terrestrial Planets	20/+	11/29 [12A]	
		Direct/Indirect Evidence/Milankovitch Cycles/Methane	20/+	11/29 [12B]	
*****		THANKSGIVING		11/26 - 11/28	
13	12/01	Weathering & Geomorphology	16	12/04 [13]	
*****	12/03	In-Class Credit Project #4: AstroGeology⁹	+	1100-1215	
		Exam Review Online in Exam III Module¹⁰			
	5/5	TAMUSA STUDY DAY			
	5/6	FINAL EXAMS BEGIN 12/5 TO 12/11			
*****	?5/11	EXAM III (Chapters 13, 14, 16, 20, 22)¹¹	EXAM III	TBA	
+ = ADDITIONAL READING AVAILABLE IN THAT WEEK'S MODULE					

Notes to Class Schedule:

1. Modules found on the class page (Homepage on Ultra) contain the week's assigned homework link or links and link(s) to assigned videos and reading outside of the textbook.
 2. Dates important to TAMUSA and course.
 3. Content of lecture topics may change over the course of semester depending on the activity of Earth's geosphere, atmosphere, hydrosphere, cryosphere, and biosphere.
 4. Chapter numbers refer to the reading for the assigned homework. The symbol "+" indicates that additional reading has been assigned and can be found with the Module for that week.
 5. Homework due dates are absolute at 11:59:59 PM on the date indicated. No extensions unless Rule 7 specific.
 6. Homework will be added to coordinate with Earth's activity. Additions will be announced in lecture.
 7. **Proctored QUIZ over syllabus & A&M Rule #7 (1.0% course grade).** One of two online intro quizzes requiring Respondus to demonstrate student knowledge over this syllabus and A&M's Rule #7. Scores <100% earn no points. This quiz requires **Respondus** as a check to make certain that Respondus is functional. The quiz may be taken as many times as necessary up to the due date. The quiz is open book. *Please note:* failure to complete this requirement does not release a student from the requirements of the syllabus and Rule #7; it does, however, reduce the total course score by 1.0 points.
 8. **Proctored QUIZ over Academic Integrity (5% course grade).** The second online intro quiz requiring Respondus to demonstrate student knowledge over this subject. Any score <100% earns no points. This quiz requires **Respondus** as a check to make certain that Respondus is functional. The quiz may be taken as many times as necessary up to the due date. The quiz is open book. *Please note:* failure to complete this requirement does not release a student from the requirements of the syllabus and Rule #7; it does, however, reduce the total course score by 5.0 points.
 9. **In-Class Projects** are introduced and completed during lecture time and not available for completion outside of the scheduled time (see Rule 7). There are four (4) in-class projects. The lowest score on the four will be dropped **IF and only IF** a student completes all four projects. Projects require additional reading, college level math, and critical thinking. Projects are in-class tutoring assignments.
 10. **Online Exam Reviews.** Online reviews are optional. For most students the use of reviews has a positive impact on overall exam performance. Review questions are taken from several sources: exam databases related to assigned textbook chapters, assigned videos, assigned reading (+) outside of textbook, materials introduced in lectures, and in-class projects.
 11. **Exams.** Exam questions are randomly chosen from reviews for a specific exam. All exams count toward the final course grade, none are dropped.
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7) Course mechanics and Course management

The mechanics and management of the course conform to **Texas A&M University Student Rule 7.**

Rule 7 is A&M's governing rule for all students. Rule #7 states that *the university considers it the responsibility of the individual student to complete all assignments within the allotted time (see paragraph #1 below).* **Valid excuses** for being absent or being unable to complete assignments/exams (**those excuses recognized by the University**) are explained in paragraph #2 – **all valid excuses require documentation** and **only** excused exercises/exams can be made-up. Any assessment (homework, class project, of exam) missed without an A&M Excused Absence cannot be made-up.

Undocumented absences are rarely excused. The list of “valid excuses” does not make reference to internet outages unless that outage affects TAMUSA's campus operations. Nor does the list make reference to “running out of time”, “my computer died”, “I forgot”, “I was busy with other courses”, etc.

8) Attendance/Participation: The University views class “attendance” as class participation and an individual student responsibility. Students of a F2F class are expected to do all the following:

- a. **CLASS MEETINGS:** Class meetings are interactive face-to-face meetings. Traditional and nontraditional lectures will convey the basic information necessary to understand the topic being addressed. Class time will also be used for discussing current and relevant Earth events, completing in-class exercises, and interpreting data so students can learn by doing. Student participation is crucial to success in the course! Attendance will be taken at each class meeting. Class meetings and class events are clearly listed in the Course Schedule – the schedule is updated periodically to reflect adjustments to topics and additional events. It is the student's responsibility to check for updates.
- b. **Visit class pages on Ultra at least once a day** to check messages from the professor related to class matters (there are always the possibilities of updates, new videos, changes due to current happenings in the geosciences like major earthquakes, volcanic eruptions, and weather phenomena),
- c. **Visit class pages on Ultra at least once a day to check for assignments or changes to assignments, and,**
- d. **Visit the class pages on Ultra at least once a day to make certain that homework, assignments, and exams are complete and submitted by the assigned deadline date and time.** Students can check, through gradebook, if an assignment is complete and submitted. This is the student's responsibility.

Missing deadlines on the submittal of assignments and quizzes is solely the responsibility of a student and never an acceptable excuse for allowing a late submission. There is no mechanism for regaining lost points from a non-submittal.

9) Lectures and Readings - The goal of the readings is to prepare for the subject under discussion. Reading assignments in the textbook will parallel the homework assignments. Students that remain current with the readings, will absorb more of the course content and have an easier time preparing for exams. To do well in this course requires attending all lectures, taking good notes, completing the assignments on time, and reading the assigned material. It is always an advantage to read the material before class. Exams will be based on the material presented in lectures, assigned readings, in-class projects, and assigned videos. Not all material presented in lecture can be found in the textbook!

- a. **Geology is not a static science** – As such, students should expect full discussions of current geologic events happening on or within Earth. This material, when relevant, will replace some or all scheduled lecture topics. Material covered in these discussions/lectures may not be available outside of lecture. Current information and materials will form the basis for some Exam questions, in-class projects, and/or homework where and when appropriate.

10) Non-Participation before and after the Census Date of September 9th (ghosting)

- a) Each semester, 5% of all students enroll but never take part or participate in classes (*ghosting*). **Participation** in GEOL 1301 and in GEOL 1101 & 1102 is defined as completing one or more of the assignments listed in the course schedule before EOD (end of day) August 31st. For reason of ghosting,

A&M campuses now delay the awarding of most grant and scholarship funds until after September 9th. This presents a hardship for the honest and non-ghosting students; however A&M had been forced into this position due to being ripped off by ghosting students who often leaving A&M no avenue to recover the lost funds. Part of A&M's new funds governance is to judge the percent of student participation over the course of a semester; e.g., if a student only attends or participates in 25% of assignments and exams (typical of a ghoster), the University will not provide certification of the course or graduation until 75% of the funds are repaid to A&M & federal agencies.

- b) In this course, students must demonstrate continuous class participation through September 9th. This continuous participation is demonstrated by completion of items 1-3 by 8/31 and completion of the first two homework assignments due 8/29 and 9/5. Failure to meet participation requirements by EOD September 9th causes a student to be administratively removed from the course on September 9th.
- c) It is unfortunately common for a few students to meet participation requirements of September 9th but have no participation in a course after the census date. Students in this category are *strongly encouraged* to drop the class before the final date to drop a course with the grade of "W" (November 19th). Students who do not initiate a drop will remain in a course for the remainder of a semester. The grade that goes onto a student's permanent transcript for non-participation is an "**FN**" to indicate that the assigned grade is based on non-participation rather than participation. Ghosting students also receive this grade.
- d) Students attempting to receive funds for participation by intentionally failing exams and homework assignments now go into a ghosting database and shared among all A&M campuses. The grade of FN is assigned to these students.

11) Homework Assessments: In this introductory course, there are weekly online homework exercises assigned over the semester. The percentage assigned to homework is high (**28%**) to give students greater control over course grades; e.g., homework grades always correlate to the amount of effort put into the work. Many of the homework questions are present in the assigned readings; therefore, it is very possible to achieve 100% on homework, however it does require an adequate knowledge of the book material. This should be everyone's goal. **Homework assignments** are available beginning August 24th with deadlines at 6-day internals (check the course schedule for specific details).

- a. Students have 6 days within which to complete homework assignments/assessments. Therefore, assessments will not be accepted after a deadline is passed. Students can submit before all deadlines but never after a deadline. *Please manage time schedules appropriately.*
- b. The **University/Rule 7** considers that the meeting of deadlines to be solely the responsibility of the student.
- c. **Homework exercises are 28% of the course grade.**
- d. **Internet Problems & Homework:** Unless the connectivity is a problem with the TAMUSA system, missing assignments due to personal internet problems is not an excuse for extensions or make-ups. Although assignment **deadlines are 11:59:59 PM**, students are encouraged to begin work well in advance of the deadline in case of personal connectivity and scheduling problems. The IT/eLearning Helpdesk is staffed until 6 pm on weekdays and can only offer assistance during those hours. Students suspecting or experiencing connectivity issues not of TAMUSA's making, may always use the campus facilities to complete and submit work.
- e. **Please remember the following:** It is to your advantage to always contact the **IT/eLearning Helpdesk** regarding any problems with BB Ultra, internet connectivity, etc. While I want to know of problems, the **IT/eLearning Helpdesk** should be your first contact unless it is a question of the class page, class assignments, and class exams.
- f. **No homework assessments will be dropped.**

12) In-Class Projects: These are of limited-content and are individual projects to be completed only

during class time (see the class schedule). The projects are designed to provide hands-on learning experiences solving scientific problems with the freedom of asking questions of the professor in a mentoring environment. All such projects require basic math and critical thinking (problem solving skills). **These projects are 20% of the course grade.**

13) HOUR EXAMS: THREE ONE-HOUR EXAMS (actual duration ~60 minutes) ***will be given during class time*** utilizing Blackboard (see attached schedule) and Respondus Browser. While the exams will not be explicitly comprehensive, the material in this course builds upon previously studied concepts. Once a concept has been introduced in lecture, that concept is fair game for subsequent lectures and exams – this is a huge benefit as an inducement for reviewing material over the semester. Exams account for a total of 45% (15% each) of your grade in the course. No exam is dropped.

Students will need to bring to class on the day of an exam a laptop or iPad capable of running the most recent student version of Respondus Browser. Respondus is provided by TAMUSA at HOME>INFORMATION TECHNOLOGY SERVICES>CUSTOMER SUPPORT>[RESOURCES](#). Scroll down page to the link [Install Respondus Lockdown Browser](#) and follow instructions.

14) Questions about grades: Questions or concerns about a grade on an exam or assignment should be brought to my attention within one week after the day grades are posted. Normally after one week, the grade will stand as recorded; there will always be legitimate exceptions.

15) Excused & Unexcused Absences: If you miss an exam because of illness, contact me as soon as possible by Blackboard email or at rex.crick@tamusa.edu. If need-be, have a friend, spouse, partner, or parent contact me; communication is essential. ***Never assume that an undocumented absence will be excused.*** Consult the details of Rule #7 before considering an absence that does not meet the definition of an Excused Absence.

- a) Please be aware that Rule 7.4.2 states that instructors are under no obligation to provide an opportunity for students to make up work missed because of unexcused absences.

16) Valid Excuses for Being Absent (requires some form of documentation) – See full list in Rule #7 Appendix:

- a) Significant illness of the student, household member, or immediate family member, including hospitalization.
- b) Death of immediate family member or household member.
- c) Religious Holidays.
- d) Interviews for full-time job opportunities after graduation or for graduate or professional school.

17) As outlined in A&M Student Rule #7, the university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments.

18) There is no opportunity for extra credit.

19) Final Course Grade computation:

Distribution of Points		
*Respondus Quiz	1.0%	**Before EOD 8/31 & 100%
*Syllabus Quiz	1.0%	**Before EOD 8/31 & Grade of 100%
*Academic Integrity	5.0%	**Before EOD 8/31 & Grade of >=95%
Homework Assessments (13)	28%	See Deadlines
In-Class Projects	20%	See Dates
Exams (3)	45%	See Dates
TOTAL	100%	
*See notes at end of Course Schedule		
**Non-participation by EOD (end of day) 8/31 = loss of pts		

20) Grade computation and grading procedure:

Percentage	Letter Grade
91 – 100	A
81 – 89	B
71 – 79	C
61 – 69	D
Below 61	F

21) A&M Rule #7 (available within Syllabus Module) A&M Rule #7. Attendance & Student Responsibilities

(Revised: Fall 2025)