GEOL 1426 – Section 001
EARTH HISTORY
Lecture and Lab

Instructor: TBA

Time and Location TBA

This course satisfies the University of Texas at Arlington core curriculum requirement in Life and Physical Sciences.

Course Description: The history of the Earth will be taught by exploring the tectonic evolution of continents and ocean basins, the origin and evolution of life, as well as the evolution of the atmosphere and the oceans, as reflected in the geologic record. The interdependence between these different parts of the Earth system and their evolution will be emphasized.

Student Learning Outcomes: After completion of this class, students will be able to (I) understand how geologic principles are applied in order to understand the Earth’s history, (II) describe milestones in the Earth’s tectonic and biologic evolution, (III) understand the complex interactions between the different parts of the Earth system in their evolution, (IV) evaluate the role of humans in the recent and future history of Earth. Students will enhance their critical thinking skills, communication skills, empirical and quantitative skills, and teamwork skills by completing assignments pertaining to the above listed learning outcomes.

Office Hours: TBA
Email: TBA
Phone: TBA


Course Material available via Blackboard: Go to http://elearn.uta.edu/, login with your NetID and password

Exams: Exams will be multiple choice, “fill-in-the-blank”, and some short answer questions. Exams must be taken at the scheduled time. Make-up exams only in 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.

Quizzes: Quizzes will be unannounced and will cover the material of the last two lectures. 4 quizzes will be given, only the best 3 quizzes will count for every student. No make-up quizzes.
Key Activities and Assignments:

Identifying depositional environments
Students will be exposed to a variety of sedimentary rock samples. By applying the concepts learned in the lecture, they will categorize the rocks, identify sedimentary structures and infer the likely depositional environment in which they formed. This activity addresses the core objectives of critical thinking skills and empirical and quantitative skills.

Geologic history of a region
In this exercise, students will be assembled in groups and will be assigned a region for which they gather different sets of geologic data, such as lithology of geologic units, their age and geographic extent, tectonic setting, paleoclimatic information, from various sources. Each student in the group will be assigned a different specialty. They will present their data to the other students in their group and then assess and interpret the data together in order to infer the geologic history of that region. Each group will then present their findings to the other groups. The maps and data submitted, the oral presentation, as well as a written summary will all be graded for this exercise. This activity includes all of the required core objectives: critical thinking (through inquiry, analysis and synthesis of data), communication skills (through visual, oral, and written presentation), empirical and quantitative skills (through assembling and categorizing data), and teamwork (through the participation in two different working groups).

Other Exercises:
Additional lab exercises will be assigned on the topics of fossil identification, geologic time, plate tectonics, paleoclimate, human role in recent and future Earth history.

Grading and Grade Calculation:

Grading:
Lecture Portion: 75% of course
Lab Portion: 25% of course

Lecture Portion:
Quizzes 9% of course (3% each)
Exams 45% of course (15% each)
Final Exam 21% of course

Lab Portion:
Key Assignments 10% of course
Other Exercises 15% of course

Final grade calculation:
0.1 x key assignments + 0.15 x other exercises + 0.09 x quizzes + 0.45 x exams + 0.21 x final exam. Score will be translated into a grade based on class average.
**Attendance:**
Attendance is required and may be taken occasionally. Lack of attendance may influence the final grade.

**Lab Safety Training:**
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 again 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.

**Students with Disabilities (Americans With Disabilities Act):**
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.

**Drop Policy:**
Students may drop or swap 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. 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.

**Academic Integrity:**
Academic dishonesty (such as cheating, plagiarism, taking an exam for another person, etc.) will not be tolerated in any form and will be disciplined in accordance with University regulations and procedures. All students enrolled in this course 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.*
**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, or view the information at www.uta.edu/resources.

**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 shall be directed to complete a 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.

No use of cell phones or other electronic devices during class/exams. Computers are allowed for note-taking only during the lectures.
## Class Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics*</th>
<th>Textbook Chapters (Parts)</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction (Geology as a Science, Earth as a System, Earth’s Place in the Universe)</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Minerals and Rocks</td>
<td>2</td>
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<tr>
<td>3</td>
<td>Minerals and Rocks (continued) Earth’s Layering</td>
<td>2, 1, 3</td>
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<td>4</td>
<td>Plate Tectonics</td>
<td>3</td>
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<td></td>
<td><strong>1st Exam</strong></td>
<td>Chapters 1, 2, 3</td>
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<tr>
<td>5</td>
<td>Rocks, Fossils, and Time:</td>
<td>5</td>
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<tr>
<td>6</td>
<td>Rocks as Archives of Earth History Geologic Time</td>
<td>6, 1, 4, 5</td>
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<td>7</td>
<td>Geologic Time (continued) Evolution</td>
<td>1, 4, 5, 7</td>
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<td><strong>2nd Exam</strong></td>
<td>Chapter 4, 5, 6, 7</td>
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<td>8</td>
<td>Precambrian Earth and Life History:</td>
<td>8, 9</td>
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<tr>
<td>9</td>
<td>Paleozoic Earth History</td>
<td>10, 11</td>
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<tr>
<td>10</td>
<td>Paleozoic Life History</td>
<td>12, 13</td>
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<td></td>
<td><strong>3rd Exam</strong></td>
<td>Chapters 8, 9, 10, 11, 12, 13</td>
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<td>11</td>
<td>Mesozoic Earth History:</td>
<td>14</td>
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<tr>
<td>12</td>
<td>Mesozoic Life History</td>
<td>15</td>
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<td>13</td>
<td>Cenozoic Earth History</td>
<td>16, 17</td>
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<tr>
<td>14</td>
<td>Cenozoic Life History</td>
<td>18, 19</td>
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<tr>
<td>15</td>
<td>Review</td>
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<tr>
<td></td>
<td><strong>FINAL EXAM</strong></td>
<td>Comprehensive</td>
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* Schedule of topics is tentative.