Course Syllabus

CoSM Class Syllabus / Policy
2021 / 2nd 6-week Summer Semester
GEOL 1001.501
Fundamentals of Earth Science

Name: Dr. Jenny Rashall
Department: Geology
Email: jenny.rashall@sfasu.edu
Phone: 936.468.2340
Office: E.L. Miller Science, Room 305
Office Hours: This is an online course and office hours will be offered electronically. Please contact me via email or D2L message to set up a Zoom session.

The lecture and laboratory portion of this class are both online classes. Please refer to the detailed calendar found as a webpage in this module. There is a mandatory quiz associated with this syllabus, so please read all the information in this unit carefully and then complete the Course Information and Syllabus Quiz in order to proceed into the course material.

Note: this quiz must be completed before any of the course material will be made available, the lecture and lab modules will remain locked until you complete this quiz.

Required Materials:

• Fundamentals of Earth Science Laboratory Kit (required, available from the SFA Barnes & Noble bookstore)
  *No textbook is required, but I recommend that you purchase a text if your personal learning style benefits from having a textbook for reference. Any previous editions of introductory or physical geology textbook purchased through various online booksellers would be a viable option. Textbook editions vary little in content; updates are generally associated with pictures and graphics.

Course Description:
Fundamentals of Earth Science (GEOL 1301) Two hours lecture, two hours laboratory per week. An introduction to the fundamental principles of Earth Science: topics include the earth’s structure and surface landforms; mineral and energy resources; geologic hazards such as volcanoes, earthquakes and landslides; water resources; and the unifying theory of plate tectonics. Required lab fee. No prerequisites

Program Learning Outcomes:
There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and/or a service course.

General Education Core Curriculum Objectives/Outcomes:
The Texas Higher Education Coordinating Board (THECB) has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives. By enrolling in GEOL 1301 Fundamentals of Earth Science, you are also enrolling in a Core Curriculum Course that seeks to develop the following core objectives established by the THECB:

- **Critical Thinking Skills** – creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information - addressed through a series of quizzes and exams corresponding to lecture content
- **Communication Skills** – effective development, interpretation and expression of ideas through written, oral and visual communication - addressed through a series of discussions corresponding to lecture content
- **Empirical and Quantitative Skills** – manipulation and analysis of numerical data or observable facts resulting in informed conclusions - addressed through lab activities where students will collect and present data
- **Teamwork** – the ability to consider different points of view and to work effectively with others to support a shared purpose or goal - addressed through a group project at the end of the semester over Alternative Energy
- **Personal responsibility** – to include the ability to connect choices, actions and consequences to ethical decision-making - addressed through discussions reflecting on human behavior and our role in sustainability
- **Social responsibility** – to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities - addressed through discussions reflecting on human behavior and our responsibility to maintain the environment

Student Learning Outcomes for Lecture and Lab:
After successful completion of this course students will be able to:

- Demonstrate an understanding of fundamental geologic concepts as it relates to Earth processes and landscape evolution through geologic time.
- Use quantitative reasoning to interpret geologic data (tables, figures, graphs) from primary research, data assimilation and models to assess the differences in competing scientific theories associated with rock formation.
• Demonstrate knowledge on the interdependence of science and technology and the influences geologic reasoning associated with identifiable and testable hypotheses of geologic processes.
• Critically assess the interrelationships between geologic phenomena and communicate the resulting conclusions in oral, visual and written formats.
• Demonstrate an understanding of the skills and attitudes necessary for effective teamwork in collaborative learning activities.

Course Requirements:

GEOL 1301 (Fundamentals of Earth Science) is an introduction to the study of the earth’s structure and natural processes. In this course, students will be introduced to and apply the scientific method to evaluate hypotheses regarding the earth’s structure, the distribution of natural resources, the immediate and long term impact of geologic hazards, and anthropogenic influence on the natural world.

The Federal Definition of the Credit Hour: a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class student work each week for approximately fifteen weeks for one semester of credit.

This class is a 3-credit hour course and has a requisite lab where students will gain hands-on experience with earth materials, gathering and analyzing data, communicating their findings and working as a team to explain scientific processes. Fundamentals of Earth Science contains extensive written content that includes the same information students in a face-to-face lecture course receive, requiring students to engage the online modules for at least three hours per week. Primary source readings are woven into the content to support key concepts and provide perspective on earth science concepts. In addition, students are required to complete quizzes/exams over the course content, participate in weekly discussion forums, and complete multiple writing assignments that evaluate their comprehension of earth materials and processes. Successful completion of all elements for the course requires at least six hours of additional student work each week.

Time

Remember, you are expected to spend the same amount of time on online courses that you would spend for in the classroom for face-to-face courses. That is, expect to spend approximately 8-10 hours per week on the lecture portion and 8-10 hours per week on the laboratory portion. In addition, success in this course would also require additional time spent in the material and studying; reports indicate that two to three additional hours (per credit hour) be spent---independent of whether the class is online or face-to-face. Many of you are choosing to take an online course because of your work schedule, family responsibilities, and scheduling conflicts, so your time is precious. Be aware of the time commitment required by this course and work responsibly.

Course Topics to be covered: *

Unit One - Earth in Context
- Geologic Time / Earth in context
- Minerals and Native Elements

**Unit Two - Earth Structure and the Rock Cycle**
- Intrusive Igneous Rocks
- Weathering, Erosion, and Sedimentary Rocks
- Metamorphic Rocks

**Unit Three - Earth Processes**
- Plate Tectonics and the Natural Environment
- Earthquakes and Volcanoes
- Rock Deformation and Geohazards

**Unit Four - Earth Resources**
- Fossil Fuels
- Mineral Resources
- Water Resources
- Soil Resources

**Unit Five - Earth in Society**
- Alternative Energy
- Populations and Resources

*Please see the Course Calendar webpage for the dates associated with each of these topics.*

**Access to Content**
I will provide access to new module content at 6 a.m. as listed on the Course Calendar opens in new window. Lecture exams will be available open at 6:00 am through 11:30 pm the following day, with the exception of the final exam. You will be able to receive your score on exams and quizzes once everyone has completed the exam and any answers that need to be individually graded have been scored. In these cases, time will be needed to review the assessments and make sure questions were asked and graded fairly. Answers to quiz and exam questions will be available once every classmate has submitted their assessment. Quizzes, unit, and module content will be available until 11:30 p.m. the day before an exam, but module content cannot be viewed the day of an exam. So, plan appropriately!

**Lecture** Examination Schedule:
- Exam 1: Sunday-Monday, July 4-5, 2021
- Exam 2: Sunday-Monday, July 11-12, 2021
- Exam 3: Tuesday-Wednesday, July 20-21, 2021
- Exam 4: Thursday-Friday, July 29-30, 2021
- Exam 5: Friday, August 6, 2021

**Laboratory** Examination Schedule:
- Midterm Exam: Tuesday - Wednesday, July 13-14, 2021
Final Exam: Sunday-Monday, August 1-2, 2021

*Please see the [Course Calendar opens in new window](#) webpage for the opening and closing times associated with these exams.

All exams will include any or all of the following sections: 1) multiple choice questions; 2) true / false questions; 3) fill in the blank questions; 4) short answer questions; 5) figure illustration; 6) short essay questions. **All exams will take place online and be delivered via d2l.** The exams will cover questions from lecture modules and assigned activities and outside sources (videos, webpages) referred to in the material. Laboratory exams will cover materials in the laboratory including rock and mineral identification and concepts developed in weekly activities.

There are between 30 and 70 questions each on each exam, and you will be given 60-75 minutes to complete the exams. The exams are *not* cumulative, but they are timed and you will not have adequate time to refer back to reference material. Questions on lecture exams and quizzes are written by the instructor, and the assessment content has been presented in the online content. D2L randomly selects questions from a question bank, and they appear one question at a time. You may not return to any question and change your answer after leaving that page so be sure of your response (study ahead of time!) before answering. It is recommended that you save your responses as you complete each question because of unknown timing of computer or power failure. I cannot help you if questions have not been saved. Once the time allotment for the exam has expired, the exam will be ended and scored.

No outside work or extra credit will be assigned to help improve your grade, so be prepared for the quizzes and exams. It is imperative that you log on and participate in all course material, pay attention to the course calendar, and keep up with the due dates for quizzes, discussions, and exams. In other words – get your money’s worth!

**Late Work**

This is not a self-paced course and you must keep up with the weekly assignments. In each module you will be required to interact with your classmates and me by participating in discussion forums, completing laboratory module activities, and completing quizzes in lecture and laboratory. It is imperative that you check the course calendar daily and be aware of the opening and closing dates of the modules and associated activities. If you miss one of the deadlines for an exam or quiz due to an emergency, please contact me to gain access. **The most efficient way to communicate with me is via email, either mySFA or d2l. Unexcused late work will not be accepted. Because this course moves very quickly in the shortened summer semester, it is necessary to complete all activities by the deadlines.**

**Dependable internet connection**

Especially when taking quizzes or exams, always rely on a dependable internet connection. I do not recommend taking an assessment via your phone or any public wireless connection (McDonalds, Starbucks, etc).

**Discussion Board**
The Discussion Board can be used as a place to exchange information between the instructor and classmates. There will be a general "Questions" post where students can ask questions regarding the course content. This is helpful to all, and I will respond to questions as quickly as possible. I always appreciate questions, and am happy to try to help. Please keep your discourse respectful to all, inappropriate comments will not be tolerated.

Lecture Grading Policy:

- Five exams (Exam 1 = 40 points, Exam 5 = 60 points, Exams 2-4 = 100 points each) = 400 points
- Fifteen online quizzes @ 10 points each = 150 points
- Fifteen discussion posts @ 10 points each = 150 points
- Total possible points = 700 points
- Lecture grade = your total points / 700, then multiply by 100
- Example: your lecture point total 525 / 700 = 0.75 x 100 = 75

Laboratory Grading Policy:

- Two exams @ 100 points each = 200 points
- All laboratory activities = 200 points, including:
  - Laboratory quizzes, 9 quizzes @ 10 points each = 90 points
  - Plate Tectonics Map and Discussion Activity = 20 points
  - Earthquake Press Release = 20 points
  - Soil Resources Presentation = 20 points
  - Group Alternative Energy Group Position Statement = 30 points
  - Group Project Discussion Forum = 10 points
  - Group Project Survey = 10 points
- Total possible points = 400 points
- Laboratory grade = your total points / 400, then multiply by 100
- Example: your laboratory point total 310 / 400 = 0.77 x 100 = 77

Course Final Grading Policy

- Lecture counts 2/3 (66.7%) of the final course grade
- Lab counts 1/3 (33.3%) of the final course grade
- Total Points for Final Grade: 33.3% (Lab) + 66.7% (Lecture) = final course grade
- Example: Lecture grade = 75, Lab grade = 77
  - 75 x .667 = 49.36; 77 x .333 = 25.64; 49.36 + 25.64 = 75.67 final course grade

Grade Scale: 90-100 + A, 80-89 + B, 70-79 + C, 60-69 + D, < 60 = F

Grades from the lecture and lab will be combined, with the lab counting 1/3 of the grade. You will receive one grade for the entire course, assigned by your instructor.

SFASU COVID Policy

This course is fully online and does not require any face-to-face attendance. Should you be on campus for any reason, please review the campus safety guidelines outlined by the university (http://www.sfasu.edu/fall2020).
Academic Integrity (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy opens in new window.

Withheld Grades Semester Grades Policy (A-54)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to the Office of Disability Services opens in new window website.

Mental Health Resources

SFASU values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
SFASU Counseling Services
www.sfasu.edu/counselingservices opens in new window
SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp opens in new window
Human Services Room 202
936-468-1041

Crisis Resources:
Burke 24-hour crisis line 1(800) 392-8343
Suicide Prevention Lifeline 1(800) 273-TALK (8255)
Crisis Text Line: Text HELLO to 741-741

SCHEDULE

Dates may change at the discretion of the instructor. Should a date change be required, it will be announced on the course homepage under the News tab and/or via d2l email. Print the Semester Calendar and check it frequently to avoid missing deadlines.

Please note: 12:00 p.m. = noon, 12:00 a.m. = midnight

Lab assignments and due dates are highlighted in blue

Read the Start Here! module.
Print the Course Calendar.

Order your Fundamentals of Earth Science Laboratory Kit opens in new window from the bookstore opens in new window.
Take the Laboratory Procedures Quiz closes 7/3/2021 at 11:30 p.m.

Introduce yourself on the “Getting to Know Me opens in new window” discussion board.

Getting Started / Course Information

June 25

Please note: 12:00 p.m. = noon, 12:00 a.m. = midnight

Lab assignments and due dates are highlighted in blue

Read the Start Here! module.
Print the Course Calendar.

Order your Fundamentals of Earth Science Laboratory Kit opens in new window from the bookstore opens in new window.
Take the Laboratory Procedures Quiz closes 7/3/2021 at 11:30 p.m.

Introduce yourself on the “Getting to Know Me opens in new window” discussion board.
Take the Syllabus and Course Information Quiz opens in new window. Syllabus and Course Information Quiz closes at 7/3/2021 at 11:30 p.m.

**Unit One - Earth in Context**

Read the module content. Earth in Context / Geologic Time module and content will close 7/3/2021 at 11:30 p.m.

Earth in Context / Geologic Time

Complete the Earth in Context / Geologic Time Quiz

Earth in Context / Geologic Time Quiz closes 7/3/2021 at 11:30 p.m.

Earth’s Structure and Earth in Context / Geologic Time Discussions - please begin a thread by responding to the prompts on both discussion forums.

The discussion forums will close 7/3/2021 at 11:30 p.m.

June 28

Lab 1 - Geologic Time

Read the laboratory module content.

Lab 1 - Geologic Time module and exercises will remain available until 7/12/2021 at 11:30 p.m.

Complete Relative Dating and Absolute Dating Exercises.

Complete Laboratory Quiz 1 - Geologic Time

Laboratory Quiz 1 - Geologic Time closes 7/3/2021 at 11:30 p.m.
### Minerals and Native Elements

- **Read the module content.**
- **Complete the Minerals and Native Elements Quiz**
- **Discussion - please begin a thread by responding to the prompt on this discussion forum.**

- **Minerals and Native Elements Quiz closes 7/3/2021 at 11:30 p.m.**
- **The discussion forum will close 7/3/2021 at 11:30 p.m.**

### Lab 2 - Minerals and Native Elements

- **Read the laboratory module content and complete the practice exercises.**
- **Take the practice Mineral Quizzes and print the Mineral Flashcards for study aids.**
- **Complete Laboratory Quiz 2 - Minerals**

- **Lab 2 module and exercises will remain available until 7/12/2021 at 11:30 p.m.**
- **Laboratory Quiz 2 - Minerals closes 7/3/2021 at 11:30 p.m.**

### July 4 Lecture Exam 1

- **Review all Earth in Context/Geologic Time and Minerals lecture modules and materials.**

- **Lecture Exam 1 will open on Sunday, 7/4/2021 at 6:00 a.m. and remain open until Monday, 7/5/2021 at 11:30 p.m.**

### Unit Two - Earth’s Structure and the Rock Cycle
<table>
<thead>
<tr>
<th>Date</th>
<th>Module Content</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 4</td>
<td>Read the module content.</td>
<td>Module and content will remain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>available until 7/10/2021 at</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11:30 p.m.</td>
</tr>
<tr>
<td>Intrusive</td>
<td>Complete the Intrusive Igneous Rocks Quiz.</td>
<td>Intrusive Igneous Rocks Quiz</td>
</tr>
<tr>
<td>Igneous</td>
<td></td>
<td>closes 7/10/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td>Rocks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab 3 -</td>
<td>Read the laboratory module content and complete the Identifying Igneous</td>
<td>Lab 3 module and exercises</td>
</tr>
<tr>
<td>Igneous</td>
<td>Rocks Exercise. Take the practice Igneous Rocks Quiz and print the Igneous</td>
<td>will remain available until</td>
</tr>
<tr>
<td>Rocks</td>
<td>Rocks Flashcards for study aids.</td>
<td>7/12/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td>Weathering,</td>
<td>Read the Weathering and Erosion and Sedimentary Rocks module content.</td>
<td>Weathering and Erosion and</td>
</tr>
<tr>
<td>Erosion,</td>
<td></td>
<td>Sedimentary Rocks modules and</td>
</tr>
<tr>
<td>Sedimentary</td>
<td></td>
<td>content will remain available</td>
</tr>
<tr>
<td>Rocks</td>
<td></td>
<td>until 7/10/2021 at 11:30 p.m.</td>
</tr>
</tbody>
</table>
Complete the Sedimentary Rocks Quiz

Sedimentary Rocks Quiz closes 7/10/2021 at 11:30 p.m.

Weathering and Erosion Discussion - please begin a thread by responding to the prompt on this discussion forum.

The Weathering and Erosion Discussion forum will close 7/10/2021 at 11:30 p.m.

Read the laboratory module content and complete the exercises. Take the practice Sedimentary Rocks Quiz and print the Sedimentary Rocks Flashcards for study aids.

Lab 4 - Sediments and Sedimentary Rocks module and exercises will remain available until 7/12/2021 at 11:30 p.m.

Complete Laboratory Quiz 4 - Sediments and Sedimentary Rocks

Laboratory Quiz 4 - Sediments and Sedimentary Rocks closes 7/10/2021 at 11:30 p.m.

Read the Metamorphic Rocks module content.

Metamorphic Rocks module and content will remain available until 7/10/2021 at 11:30 p.m.

Complete the Metamorphic Rocks Quiz

Metamorphic Rocks Quiz closes 7/10/2021 at 11:30 p.m.
Metamorphic Rocks Discussion - please begin a thread by responding to the prompt on this discussion forum. The Metamorphic Rocks Discussion forum will close 7/10/2021 at 11:30 p.m.

Read the laboratory module content and complete the exercises. Take the practice Metamorphic Rocks Quiz and print the Metamorphic Rocks Flashcards for study aids.

Lab 5 - Metamorphic Rocks and the Rock Cycle module and exercises will remain available until 7/12/2021 at 11:30 p.m.

Complete Laboratory Quiz 5 - Metamorphic Rocks and the Rock Cycle.

Laboratory Quiz 5 - Metamorphic Rocks and the Rock Cycle closes Wednesday 7/10/2021 at 11:30 p.m.

Lecture Exam 2

The Rock Cycle (Igneous, Weathering and Erosion, Sedimentary, and Metamorphic Rocks)

Review all Rock Cycle lecture modules and materials.

Lecture Exam 2 will open on Sunday, 7/11/2021 at 6:00 a.m. and remain open until Monday, 7/12/2021 at 11:30 p.m.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 13</td>
<td>Lab Midterm Exam</td>
<td>Review all laboratory materials and samples, answer keys to all written exercises, and rock, mineral, and sediment identification and classification materials. Laboratory modules and answer keys will close on July 12 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td>Geologic Time, Minerals, and the Rock Cycle (Labs 1-5)</td>
<td>Lab Midterm Exam will open on Tuesday, 7/13/2021 at 6:00 a.m. and remain open until Wednesday, 7/14/2021 at 11:30 p.m. Have rock, mineral, and sediment samples available when you take the exam.</td>
</tr>
<tr>
<td></td>
<td>Unit Three - Earth Processes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Read the Plate Tectonics module content</td>
<td>Plate Tectonics module and content will remain available until 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td>Complete the Plate Tectonics Quiz</td>
<td>Plate Tectonics Quiz will close 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td>July 11</td>
<td>Plate Tectonics Discussion - please begin a thread by responding to the prompt on this discussion forum.</td>
<td>The Plate Tectonics Discussion forum will close 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td>Lab 6 - Plate Tectonics and Natural Resources</td>
<td>Read the laboratory module content and create a map of copper porphyry deposits on the USGS interactive website using the directions found in the module.</td>
</tr>
<tr>
<td></td>
<td>Lab 6 - Plate Tectonics and Natural Resources module and exercises will remain open until 7/31/2021 at 11:30 p.m.</td>
<td>Lab 6 - Plate Tectonics and Natural Resources module and exercises will remain open until 7/31/2021 at 11:30 p.m.</td>
</tr>
</tbody>
</table>
Submit your map to the Lab 6 - Plate Tectonics and Natural Resources dropbox by the due date. Begin a thread by responding to the prompt on the laboratory discussion forum.

Lab 6 - Plate Tectonics and Natural Resources dropbox will close 7/19/2021 at 11:30 p.m.
Lab 6 - Plate Tectonics and Natural Resources discussion forum will close 7/19/2021 at 11:30 p.m.

Read the Volcanoes module content.

Read the Earthquakes module content.

Earthquake and Volcanoes modules and content will remain available until 7/19/2021 at 11:30 p.m.

July 11 Volcanoes, Earthquakes

Volcanoes Discussion - please begin a thread by responding to the prompt on this discussion forum.

The Volcanoes Discussion forum will close 7/19/2021 at 11:30 p.m.

Complete the Earthquakes and Volcanoes Quiz

Earthquakes and Volcanoes Quiz closes 7/19/2021 at 11:30 p.m.
<table>
<thead>
<tr>
<th>Date</th>
<th>Module/Activity</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 11</td>
<td><strong>Rock Deformation and Geohazards</strong></td>
<td>Read the Rock Deformation and Geohazards module content. Complete the Rock Deformation and Geohazards Quiz.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geohazards module and content will remain available until 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Rock Deformation and Geohazards Quiz closes 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td><strong>Flooding and Urbanization Discussion</strong></td>
<td>Flooding and Urbanization Discussion - please begin a thread by responding to the prompt on this discussion forum.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Flooding and Urbanization Discussion forum will close 7/19/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td><strong>Lab 7 - Earthquakes</strong></td>
<td>Read the laboratory module content and complete the P-and-S Wave Arrival Time and Earthquake Analysis Exercises.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lab 7 - Earthquakes module and exercises will remain available until 7/31/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complete the written assignment for the Earthquake Analysis Exercise.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upload your written assignment to the Dropbox on d2l to complete your requirements for this laboratory module.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laboratory 7 written assignment is due by 7/19/2021 at 11:30 p.m. in the d2l dropbox.</td>
</tr>
<tr>
<td>Lab 8 - Geohazards</td>
<td>Read the laboratory module content and complete the Geohazards Exercise.</td>
<td>Lab 8 - Geohazards module and exercises will remain available until 7/31/2021 at 11:30 p.m.</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Complete Laboratory Quiz 8 - Geohazards</td>
<td>Laboratory Quiz 8 - Geohazards closes 7/19/2021 at 11:30 p.m.</td>
</tr>
</tbody>
</table>

**Lecture Exam 3**

**July 20**  
Plate Tectonics, Volcanoes, Earthquakes, and Geohazards  
Review all Earth Processes lecture modules and materials.  
Lecture Exam 3 will open on Tuesday, 7/20/2021 at 6:00 a.m. and remain open Wednesday, 7/21/2021 until 11:30 p.m.

**Unit Four - Earth Resources**

**July 20 Fossil Fuels**  
Read the Fossil Fuels module content.  
The Fossil Fuels module and content will remain available until 7/28/2021 at 11:30 p.m.

Fossil Fuels Discussion - please begin a thread by responding to the prompt on this discussion forum.  
The Fossil Fuels Discussion forum will close 7/28/2021 at 11:30 p.m.

Complete the Fossil Fuels Quiz  
Fossil Fuels Quiz closes 7/28/2021 at 11:30 p.m.
Lab 9 - Fossil Fuels

- Read the laboratory module content and exercises will remain available until 7/31/2021 at 11:30 p.m.
- Complete Laboratory Quiz 9 - Fossil Fuels

Lab 9 - Fossil Fuels module

- Laboratory Quiz 9 - Fossil Fuels closes 7/28/2021 at 11:30 p.m.

Mineral Resources

- Read the Mineral Resources module content.
- Complete the Mineral Resources Quiz

Mineral Resources Quiz will close 7/28/2021 at 11:30 p.m.

July 20

- Mineral Resources Discussion - please begin a thread by responding to the prompt on this discussion forum.

Mineral Resources Discussion forum will close 7/28/2021 at 11:30 p.m.

Lab 10 - Mineral Resources

- Read the laboratory module content and exercises will remain available until 7/31/2021 at 11:30 p.m.
<table>
<thead>
<tr>
<th>July 20</th>
<th>Complete Laboratory Quiz 10 - Mineral Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laboratory Quiz 10 - Mineral Resources closes 7/28/2021 at 11:30 p.m.</td>
</tr>
</tbody>
</table>

Read the Water Resources module content.

<table>
<thead>
<tr>
<th>Water Resources</th>
<th>Complete the Water Resources Quiz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Resources Quiz will close 7/28/2021 at 11:30 p.m.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Resources Discussion - please begin a thread by responding to the prompt on this discussion forum.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Resources Discussion will close 7/28/2021 at 11:30 p.m.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>July 20</th>
<th>Lab 11 - Water Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab 11 - Water Resources</td>
<td></td>
</tr>
<tr>
<td>Read the laboratory module content and complete the exercises.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab 11 - Water Resources</th>
<th>Complete Laboratory Quiz 11 - Water Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Quiz 11 - Water Resources closes 7/28/2021 at 11:30 p.m.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>July 20</th>
<th>Soils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soils</td>
<td>Read the Soils module content.</td>
</tr>
</tbody>
</table>

The Soils module and content will remain available until 7/28/2021 at 11:30 p.m.
Complete the Soil Resources Quiz. Soil Resources Quiz will close 7/28/2021 at 11:30 p.m.

Soils Discussion - please begin a thread by responding to the prompt on this discussion forum. The Soils Discussion forum will close 7/28/2021 at 11:30 p.m.

Lab 12 - Soil Resources
Read the laboratory module content and complete the exercises. Lab 12 - Soil Resources module and content will remain available until 7/31/2021 at 11:30 p.m.

Upload the Soil Resources Presentation and soil report from Web Soil Survey to the dropbox to complete your requirements for this laboratory module. Laboratory 12 Soil Resources Presentation and soil report is due by 7/28/2021 at 11:30 p.m. in the d2l dropbox.

Lecture Exam 4
July 29
Fossil Fuels, Mineral, Water, and Soil Resources
Review all Earth Resources lecture modules and materials. Lecture Exam 4 will open on Thursday, 7/29/2021 at 6:00 a.m. and remain open until Friday, 7/30/2021 until 11:30 p.m.

Unit Five - Earth and Society
July 29
Alternative Energy
Read the Alternative Energy module content. The Alternative Energy module and content will remain available until 8/5/2021 at 11:30 p.m.
Lab 13 - Alternative Energy

Alternative Energy Group Project - This is a group activity and your group will be required to research and articulate a position on the potential use of one form of alternative energy. You will be randomly assigned to a group, and each group will be required to submit a written position statement to the d2l Dropbox, participate in the group discussion, and respond to a quiz regarding the group project.

The Alternative Energy Position Statement is due in the Dropbox by 8/5/2021 at 11:30 p.m.

July 29 - Populations and Resources

Read the Populations and Resources module content.

The Populations and Resources module and content will remain available until 8/5/2021 at 11:30 p.m.

Complete the Populations and Resources Quiz.

The Populations and Resources Quiz will close 8/5/2021 at 11:30 p.m.

Populations and Resources Discussion - please begin a thread by responding to one of the prompts on this discussion forum.

The Populations and Resources Discussion forum will close 8/5/2021 at 11:30 p.m.

Alternative Energy Discussion - please begin a thread by responding to the prompt on this discussion forum.

The Alternative Energy Discussion forum will close 8/5/2021 at 11:30 p.m.
<table>
<thead>
<tr>
<th><strong>Lab Final Exam</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Tectonics</td>
</tr>
<tr>
<td>and Natural</td>
</tr>
<tr>
<td>Resources,</td>
</tr>
<tr>
<td>Earthquakes,</td>
</tr>
<tr>
<td>Geohazards,</td>
</tr>
<tr>
<td>Fossil Fuels,</td>
</tr>
<tr>
<td>Mineral</td>
</tr>
<tr>
<td>Resources, Water</td>
</tr>
<tr>
<td>Resources, and</td>
</tr>
<tr>
<td>Soils (Labs 6-12)</td>
</tr>
</tbody>
</table>

Review all laboratory materials. Review answer keys to all written exercises.

Lab Final Exam will open on Sunday, 8/1/2021 at 6:00 a.m. and remain open until Monday, 8/2/2021 at 11:30 p.m.

<table>
<thead>
<tr>
<th><strong>Lecture Exam 5</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Populations and</td>
</tr>
<tr>
<td>Resources and</td>
</tr>
<tr>
<td>Alternative Energy</td>
</tr>
</tbody>
</table>

Review all Earth and Society lecture modules and materials.

Lecture Exam 5 will open on Friday, 8/6/2021 at 6:00 a.m. and remain open until 11:30 p.m.