Eastfield College
Science, Technology, Engineering, and Math (STEM) Division

Winter Mester 12/08/17 – 01/07/18
Geology 1401-42489 Earth Sciences for Non-Science Majors (4 credits)

Times
Lecture: INET
Lab: INET

Instructor
Shizuko Watanabe, Ph.D.

Contact Information
Office: EFC C286
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Office Hours: Individual assistance is always available by appointment.

Course Description
This course is for the non-science major. It is an introductory survey of physical geology, historical geology, oceanography, meteorology, and astronomy. It relates the interaction of the earth sciences to the physical world. (3 Lec., 3 Lab.) Coordinating Board Academic Approval Number 4006015103

Prerequisite
One of the following must be met: (1) Developmental Reading 0093 or (2) English as a Second Language (ESOL) 0044 or (3) have met the Texas Success Initiative (TSI) Reading standard.

General Guideline
- This course will be conducted completely online with scheduled due dates.
- To successfully complete the course, you are expected to have (or obtain) necessary technical skills.
- To contact your instructor, please include your name and course information in the subject line.

Required Materials
  Access code to Mastering Geology is required.
  * If your used textbook does not come with the code, you are required to purchase it separately. Also available as eText.

  * Also available as eText. You will be asked to print out certain pages, scan, and submit as a part of your lab assignment. Used lab manuals are not recommended due to missing pages.

- Other materials: 1. Access to a scanner or digital camera (cell phone camera is acceptable), 2. Ruler, 3. Compass, 4. Protractor, and 5. Color pencils

Drop Date: 01/02/18
Course Structure & Grading

- Components of this course are:

1. Exams (midterm & final) 30%
2. Mastering Geology assignments 35%
3. Lab assignments 20%
4. Term project 12%
5. Orientation activities 3%

- With the exception of Mastering Geology assignments, all other assignments are posted on eCampus (Blackboard).
- Detailed explanation for each component is posted on eCampus. Students are expected to read the document before the start of the class.
- All assignments must be turned in by **11:59:00PM** on the due date indicated below.
- Students’ grades are regularly updated on eCampus.
- A = 90-100%  B = 80-89%  C = 70-79%  D = 60-69%  F = <60%

Make-up & Late Assignment Policy

- Do not plan to complete all your assignments on the due date as you may get sick or have a computer problem on that day.
- **No late submissions will be accepted.**
- Any incomplete assignments will receive a zero.
- All course work must be completed by 01/07/18.
Course Schedule and Due Dates (Duration: 12/08/17 – 01/07/18)

There is a checklist for each chapter on eCampus. Most chapters have two Mastering Geology assignments and one lab assignment.

<table>
<thead>
<tr>
<th>Checklist</th>
<th>Date (Due 11:59:00pm)</th>
<th>Assignments</th>
<th>Notes</th>
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| ✓         | Friday, December 08, 2017 | Class begins! | ▪ Mastering Geology registration opens on the first day.  
▪ Students must complete at least one assignment by Dec. 11 to be certified in the class. |
|           | Monday, December 11, 2017 | Orientation |       |
|           | Tuesday, December 12, 2017 | CH1         |       |
|           | Wednesday, December 13, 2017 | CH2        |       |
|           | Thursday, December 14, 2017 | CH3        |       |
|           | Monday, December 18, 2017 | CH5         |       |
|           | Tuesday, December 19, 2017 | CH6         |       |
|           | Wednesday, December 20, 2017 | CH7        |       |
|           | Thursday, December 21, 2017 | CH8        |       |
|           | Tuesday, December 26, 2017 | CH9        | ▪ These are suggested due dates during the holidays. They can be submitted any time before Jan. 3 at 11:59 pm. Please manage your time wisely. |
|           | Wednesday, December 27, 2017 | CH10       |       |
|           | Thursday, December 28, 2017 | CH11       |       |
|           | Tuesday, January 2, 2018 | CH12       |       |
|           | Wednesday, January 3, 2018 | CH13       |       |
|           | Thursday, January 4, 2018 | Project    |       |
|           | Friday, January 5, 2018 | CH15       |       |
|           | Sunday, January 7, 2018 | Midterm & Final exam | ▪ Please see suggested due dates. |
Student Technical Assistance
If you require technical assistance, you may access our customer service center via phone or Web.
   Web: Technical Support
   Phone: 1-866-374-7169

Student Learning Outcomes/ Course Objectives

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

Laboratory
6. Classify rocks and minerals based on chemical composition, physical properties, and origin.
7. Apply knowledge of topographic maps, diagrams, and/or photographs to identify landforms and explain the processes that created them.
8. Differentiate the types of plate boundaries, explain the processes that occur at each and identify associated structural features on maps, block diagrams and cross sections.
9. Apply relative and numerical age-dating techniques to construct geologic histories.
10. Measure atmospheric processes that affect weather and climate.
11. Describe the composition and motion of ocean water and analyze the factors controlling both.
12. Compare properties and motions of objects in the solar system.
13. Demonstrate the collection, analysis, and reporting of data.

Core Objectives
GEOL 1401 develops the following Core Objectives: Critical Thinking - to include scientific thinking, inquiry, analysis, evaluation and synthesis of information Communication - to include effective development, interpretation and expression of ideas through written, oral and visual communication. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Teamwork -to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

Core Objective Development Statements
- GEOL 1401 develops Critical Thinking and Communication by requiring students to analyze and interpret scientific information through constructing documents which include written and visual elements.
- GEOL 1401 develops Empirical and Quantitative Skills by requiring students to collect, organize, analyze and interpret scientific data and/or observations in order to draw a conclusion.
- GEOL 1401 develops Teamwork by requiring students to collaborate and cooperate in order to conduct a scientific investigation or exploration of the scientific method.

Institutional Policies and Services
- Institutional Policies relating to this course can be accessed from the following link: https://www.eastfieldcollege.edu/au/fastfacts/legal/pages/policies-for-syllabi.aspx

The instructor reserves the right to amend this syllabus as necessary.