Earth Science II Syllabus
Richland College

Instructor Information

Name: Stephen Kallenberg
DCCCD Email: skallenberg@dcccd.edu
Office Phone: 972-761-6812 (Email is the best way to reach me)
Office Location: My Home
Office Hours: Email me at any time.

Division Office and Phone: School of Science & Health Professions
Sabine Hall, SH205
972-238-6248

Course Information

Course Title: Earth Science II
Course Number: GEOL 1402
Section Number: 83001
Semester/Year: Spring 2020
Credit Hours: 4 Credit Hours

Class Meeting Time/Location: Now Online
Formerly:
Lectures on Monday and Wednesdays from 9:40 AM to 11:00 AM in Room: Y104
Lab on Thursday from 8:10 AM to 11:00 AM in Room: SH253

Certification Date: February 3, 2020
Last Day to Withdraw: April 16, 2020

Course Prerequisites

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

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.)
**Student Learning Outcomes**

Upon successful completion of this course, students will:

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.
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.
Texas Core Objectives

The College defines essential knowledge and skills that students need to develop during their college experience. These general education competencies parallel the Texas Core Objectives for Student Learning. In this course, the activities you engage in will give you the opportunity to practice two or more of the following core competencies:

1. **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

2. **Communication Skills** - to include effective development, interpretation, and expression of ideas through written, oral, and visual communication

3. **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

4. **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

5. **Personal Responsibility** - to include the ability to connect choices, actions, and consequences to ethical decision-making

6. **Social Responsibility** - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Required Course Materials

ISBN-10: 0393614107

A textbook access code is not required. You can purchase used or rent the book. There are also copies of the textbook in the Richland College Library and Science Corner.
Graded Work
The tables below provide a summary of the graded work in this course and an explanation of how your final course grade will be calculated.

Four lecture exams; two lab exams; weekly lab exercises; group project – see detailed course outline at the bottom of this syllabus.

Summary of Graded Work

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Homework</td>
<td>6 @ 15 points each</td>
<td>90 points</td>
</tr>
<tr>
<td>Lecture Exams</td>
<td>5 @ 100 points each</td>
<td>500 points</td>
</tr>
<tr>
<td>Lecture Quizzes</td>
<td>4 @ 50 points each</td>
<td>200 points</td>
</tr>
<tr>
<td>Lab Exercises</td>
<td>6 @ 15 points each</td>
<td>90 points</td>
</tr>
<tr>
<td>Lab Exercises (Online)</td>
<td>6 @ 20 points each</td>
<td>120 points</td>
</tr>
<tr>
<td>Lab Final Presentation</td>
<td>1 @ 100 points each</td>
<td>100 points</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td><strong>1,100 points</strong></td>
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</tbody>
</table>

Final Grade

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentages</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>984.5 – 1,100</td>
<td>89.5-100%</td>
<td>A</td>
</tr>
<tr>
<td>874.5 – 984.4</td>
<td>79.5-89%</td>
<td>B</td>
</tr>
<tr>
<td>764.5 – 874.4</td>
<td>69.5-79%</td>
<td>C</td>
</tr>
<tr>
<td>654.5 – 764.4</td>
<td>59.5-69%</td>
<td>D</td>
</tr>
<tr>
<td>0 – 654.4</td>
<td>0-59%</td>
<td>F</td>
</tr>
</tbody>
</table>
**Attendance and Your Final Grade**

In order to be successful, students must attend and participate in enrolled courses. Multiple unexcused absences (4 or more) will result in an automatic F for the course. Email the instructor if you miss class.

**Late Work Policy**

Quizzes and Labs cannot be made up if missed. Missed Exams may be made up only with instructor permission. Make-up exams will be all essays.

**Other Course Policies**

Cell phones must be turned off or put on silent during class times. This does not mean you can sit there and play on your phone the entire class. If you need to answer your phone, please leave the classroom to do so. Food and drinks are allowed in lecture, but I am not your parent, so please clean up after yourself.

*No food/drinks allowed in the lab classroom at any time.* Students must wear closed-toe shoes during lab, no excuses. Students will be asked to leave if they are not wearing the proper foot attire. Students are not allowed to record lectures and labs or take pictures without the instructor’s permission. Please respect your instructor and fellow classmates – this is a learning environment and you paid to be here. Please speak with or email your instructors with any questions or concerns throughout the semester.

**Institutional Policies**

Institutional Policies relating to this course can be accessed using the link below. These policies include information about tutoring, Disabilities Services, class drop and repeat options, Title IX, and more.

[Richland Institutional Policies](http://www.richlandcollege.edu/syllabipolicies)
Course Outline: GEOL 1402 Spring 2020

Spring Break: March 16th through March 20th.

<table>
<thead>
<tr>
<th>Units</th>
<th>Lecture (M&amp;W) - Y104 Lab (F) - SH253</th>
</tr>
</thead>
</table>
| **Unit 1** Tectonics and Earth History | Chapter 2: Plate Tectonics
Chapter 9: Deep Time
Chapter 10: A Biography of the Earth + Evolution |
| **Unit 2** Oceans and Atmosphere | Chapter 15: Ocean Waters
Chapter 16: Marine Geology
Chapter 17: The Air We Breathe |
| **Unit 3** Weather and Climate | Chapter 18: Winds of the World
Chapter 19: Thunderstorms and Local Weather
Chapter 20: Climate and Climate Change |
| **Unit 4** Space            | Chapter 21: Introducing Astronomy
Chapter 22: The Solar System
Chapter 23: The Sun, Stars and Deep Space |

This Syllabus is Tentative and Subject to Change. Students should check eCampus regularly for course announcements and updates.

Syllabus last updated on March 30, 2020