Course Description

Study of the scientific principles that influence our planet, its rocks, mountains, atmosphere, and oceans.

Prerequisites

None

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Textbook


Course Learning Objectives

Upon completion of this course, students should be able to:

1. Identify the most important elements that compose Earth's continental crust.
2. Explain the processes of weathering, erosion, and mass wasting.
3. Examine the cause of earthquakes and volcanoes.
4. Describe Earth's interior structure and composition.
5. Explain the theory of plate tectonics.
6. Examine ocean currents, the causes of tides, and shoreline erosion.
7. Define the science of meteorology and explain the difference between weather and climate.
8. Examine the formation and forms of clouds and precipitation.
9. Describe air pressure, how it is measured, and how it changes with altitude.
10. Recognize the contributions of Nicolaus Copernicus, Tycho Brahe, Johannes Kepler, Galileo, and Sir Isaac Newton to modern Astronomy.
12. Discuss stellar evolution.

Course Structure

1. **Unit Learning Objectives:** Each unit contains Unit Learning Objectives that specify the measurable skills and knowledge students should gain upon completion of the unit.
2. **Written Lectures:** Each unit contains a Written Lecture, which discusses lesson material.
3. **Reading Assignments:** Each unit contains Reading Assignments from one or more chapters from the textbook. Supplemental Readings and Chapter Presentations are provided in each unit study guide as Supplemental Reading to aid students their course of study.
4. **Learning Activities (Non-Graded):** These non-graded Learning Activities are provided in Units I and VII to aid students in their course of study.
5. **Key Terms**: Key Terms are intended to guide students in their course of study. Students should pay particular attention to Key Terms as they represent important concepts within the unit material and reading.

6. **CMP5A**: See Details below.

7. **Hot Topics Forums**: See details below.

8. **Blocks and Adaptive Release**: See details below.

9. **Unit Assessments**: This course contains eight Unit Assessments, one to be completed at the end of each unit.

10. **Final Exam (Proctored)**: Students are to complete a Final Exam in Unit VIII. All Final Exams are proctored—see below for additional information. You are permitted four (4) hours to complete this exam, in the presence of your approved proctor. This is an open book exam. Only course textbooks and a calculator, if necessary, are allowed when taking proctored exams.

11. **Ask the Professor**: This communication forum provides you with an opportunity to ask your professor general or course content related questions.

12. **Student Break Room**: This communication forum allows for casual conversation with your classmates.

**CMP5A**

The CMP5A is an enhanced course model that includes Blocks of Units and Hot Topics discussion forums, both of which are controlled by a feature called Adaptive release.

**Hot Topics Forums**

These graded discussion forums provide students an opportunity to relate course theories and concepts to real world events in an atmosphere of academic collegiality. Students will have the chance to interact with the professor and share their ideas and thoughts with their classmates.

You are required to make six posts in each Hot Topics Forum. Your six posts may be any combination of the following: replies to the original question(s) or comments to other students. You may choose to participate in one or all of the threads within each Forum, as long as you meet the six-post requirement.

**Blocks and Adaptive Release**

This course is arranged into Blocks of Units. Adaptive Release is a functional setting in Blackboard that controls student access to open and submit unit assessments and assignments within the course. You must submit all items in a Block in order to gain access to the next Block.

The syllabus, study guides, and supplemental materials are not affected by Adaptive Release and therefore will always be accessible to students at any time during the course.

**Final Examination Guidelines**

Final Exams are to be administered to students by an approved Proctor. CSU approves two, flexible proctoring options: a standard Proctor, who is chosen by the student and approved by the university, or Remote Proctor Now (RP Now), an on-demand, third-party testing service that proctors examinations for a small fee.

A standard Proctor is an unbiased, qualified individual who is selected by the student and agrees to supervise an examination. You are responsible for selecting a qualified Proctor, and the Proctor must be pre-approved by CSU.

Students choosing RP Now must have an operational webcam/video with audio, a high-speed internet connection, and the appropriate system rights required to download and install software.
To review the complete Examination Proctor Policy, including a list of acceptable Proctors, Proctor responsibilities, Proctor approval procedures, and the Proctor Agreement Form, go to the myCSU Student Portal from the link below.

http://mycsu.columbiasouthern.edu

You are permitted four (4) hours to complete this exam, in the presence of your approved Proctor. This is an open book exam. Only course textbooks and a calculator, if necessary, are allowed when taking proctored exams.

Communication Forums

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

Once you have completed Unit VIII, you MUST unsubscribe from the forum; otherwise, you will continue to receive e-mail updates from the forum. You will not be able to unsubscribe after your course end date.

Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.

Ask the Professor

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to email your professor. Responses to your post will be addressed or emailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

Student Break Room

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.

Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Unit Assessments (8 @ 9%)</td>
<td>= 72%</td>
</tr>
<tr>
<td>Hot Topics Forums (2 @ 6%)</td>
<td>= 12%</td>
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<tr>
<td>Final Exam</td>
<td>= 16%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>= 100%</strong></td>
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Course Schedule/Checklist (PLEASE PRINT)

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.

ES 1010, Earth Science
By following this schedule, you will be assured that you will complete the course within the time allotted. Please keep this schedule for reference as you progress through your course.

<table>
<thead>
<tr>
<th>Unit I</th>
<th>Discovering Earth Science and its Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review:</td>
<td>Unit Study Guide</td>
</tr>
<tr>
<td>Read:</td>
<td>Introduction to Earth Science</td>
</tr>
<tr>
<td></td>
<td>Chapter 1: Minerals: Building Blocks of Rocks</td>
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<td>Chapter 1 Presentation: See Study Guide</td>
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<td></td>
<td>Chapter 2: Rocks: Materials of the Solid Earth</td>
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<td>Chapter 2 Presentation: See Study Guide</td>
</tr>
<tr>
<td></td>
<td>Supplemental Reading: See Study Guide</td>
</tr>
<tr>
<td>Submit:</td>
<td>Assessment</td>
</tr>
<tr>
<td></td>
<td>Consider posting in the Hot Topics Forum A</td>
</tr>
</tbody>
</table>

**Notes/Goals:**

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<table>
<thead>
<tr>
<th>Unit II</th>
<th>Landscapes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review:</td>
<td>Unit Study Guide</td>
</tr>
<tr>
<td>Read:</td>
<td>Chapter 3: Landscapes Fashioned by Water</td>
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<td>Chapter 3 Presentation: See Study Guide</td>
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<td>Chapter 4: Glacial and Arid Landscapes</td>
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<td>Chapter 4 Presentation: See Study Guide</td>
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<td>Supplemental Reading: See Study Guide</td>
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<tr>
<td>Submit:</td>
<td>Proctor Approval Form</td>
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<tr>
<td></td>
<td>Assessment</td>
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<tr>
<td></td>
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</table>

**Notes/Goals:**

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<table>
<thead>
<tr>
<th>Unit III</th>
<th>Plate Tectonics and Restless Earth</th>
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</thead>
<tbody>
<tr>
<td>Review:</td>
<td>Unit Study Guide</td>
</tr>
<tr>
<td>Read:</td>
<td>Chapter 5: Plate Tectonics: A Scientific Theory Unfolds</td>
</tr>
<tr>
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<td>Chapter 5 Presentation: See Study Guide</td>
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<td></td>
<td>Chapter 6: Restless Earth: Earthquakes, Geologic Structures, and Mountain Building</td>
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<td>Chapter 6 Presentation: See Study Guide</td>
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<td></td>
<td>Supplemental Reading: See Study Guide</td>
</tr>
<tr>
<td>Submit:</td>
<td>Assessment</td>
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<td></td>
<td>Consider posting in the Hot Topics Forum A</td>
</tr>
</tbody>
</table>

**Notes/Goals:**
## Unit IV: Igneous Activity and Geologic Time

### Review:
- Unit Study Guide

### Read:
- Chapter 7: Fires Within: Igneous Activity
- Chapter 7 Presentation: See Study Guide
- Chapter 8: Geologic Time
- Chapter 8 Presentation: See Study Guide

### Submit:
- Assessment
- Consider posting in the Hot Topics Forum A

### Notes/Goals:

## Unit V: Oceans

### Review:
- Unit Study Guide

### Read:
- Chapter 9: Oceans: The Last Frontier
- Chapter 9 Presentation: See Study Guide
- Chapter 10: The Restless Ocean
- Chapter 10 Presentation: See Study Guide

### Submit:
- Assessment
- Consider posting in the Hot Topics Forum B

### Notes/Goals:

## Unit VI: Earth’s Atmosphere

### Review:
- Unit Study Guide

### Read:
- Chapter 11: Heating the Atmosphere
- Chapter 11 Presentation: See Study Guide
- Chapter 12: Moisture, Clouds, and Precipitation
- Chapter 12 Presentation: See Study Guide

### Submit:
- Assessment
- Consider posting in the Hot Topics Forum B

### Notes/Goals:
### Unit VII: The Atmosphere in Motion and Weather Patterns and Severe Weather

- **Review:**
  - Unit Study Guide

- **Read:**
  - Chapter 13: The Atmosphere in Motion
  - **Chapter 13 Presentation:** See Study Guide
  - Chapter 14: Weather Patterns and Severe Weather
  - **Chapter 14 Presentation:** See Study Guide
  - **Supplemental Reading:** See Study Guide

- **Submit:**
  - Request to Take Final Exam
  - Assessment
  - **Consider posting in the Hot Topics Forum B**

### Notes/Goals:

### Unit VIII: The Solar System and Beyond

- **Review:**
  - Unit Study Guide

- **Read:**
  - Chapter 15: The Nature of the Solar System
  - **Chapter 15 Presentation:** See Study Guide
  - Chapter 16: Beyond the Solar System
  - **Chapter 16 Presentation:** See Study Guide
  - **Supplemental Reading:** See Study Guide

- **Submit:**
  - Assessment
  - **Consider posting in the Hot Topics Forum B**
  - Final Exam

### Notes/Goals: