



COURSE SYLLABUS

ES 201 Earth Systems and Space Science

Self-Paced Course - Web-Based Format Option

Session begins on the 1st day of enrollment month and ends on the last day of the 6th month

Instructor Information

Instructor Name: [faculty member]

Contact Information: For questions, comments, or concerns please contact the Self-Paced Degree Program office:

Telephone: 563-425-5200 or 1-800-553-4150

E-mail: selfpaced@uiu.edu

Address: Upper Iowa University, PO Box 1857, Fayette, IA 52142

Course Description

Semester Credits: 3 semester credits

Catalog Course Description:

This course is designed to develop content mastery in Earth systems and space science. Earth Systems and Space Science emphasizes the scientific principles governing Earth's structure, geologic processes, atmospheric and ocean systems, and space science, including Earth–Sun relationships, stellar evolution, and cosmology. Participants will analyze scientific data, construct models, and apply systems thinking to explain natural phenomena.

Prerequisites: none

Credit Hours: As a requirement of HLC Accreditation, all UIU courses, regardless of meeting schedule or instructional mode, follow the Federal Credit Hour Definition. As such, each credit hour earned at UIU is equivalent to a minimum of 45 hours of student engagement.

For more information on how specific instructional modes meet this requirement, please see *UIU's Policy Guidelines for Instructional Time Expectations*: [UIU Policies](#).

Course Materials

It is the student's responsibility to make sure she/he has access to all required course materials by the start of the session.

Required Textbooks

Title: Exploring Earth Science

Edition: Third

Publisher: McGraw-Hill Higher Education (US)

Format: E-text with McGraw Hill Connect Access

There are two ways to purchase a McGraw Hill Connect code.

Option 1: Purchase a Connect code using a credit card online using a link in the course.

Option 2: Purchase a code through the online university bookstore (instructions below)

Directions for finding and purchasing required textbooks/supplies from the University bookstore:

To purchase from the UIU bookstore:

- 1) Navigate to <https://bncvirtual.com/uiu> and click 'Let's get Started'
- 2) Select the appropriate 'Self-Paced Session' that matches your enrollment dates in the course on the left.
- 3) Select your course (ES 201: Earth Systems and Space Science) on the right.
- 4) Select 'View your Materials'
- 5) Purchase your access code. You will enter this when you launch the first McGraw Hill assignment in the course in Unit 1.

You may also order through the bookstore by phone at (800) 325-3252.

*The price and length of time you have access to McGraw Hill materials for the course can be different between the two options, so please compare them to determine the best fit.

Recommended Resources

- Scientific data sources (e.g., NOAA, NASA datasets)
- Graphing Tools (Excel, Google Sheets)
- Diagram/visual tools (Canva, Google Slides, etc.)

UIU Tutor Center

- Email: tutorcenter@uiu.edu
- Phone: (563) 425-5272

UIU Academic Success

- Email: academicsuccess@uiu.edu
- Phone: (563) 425-5264

Ordering Textbooks

Purchase your textbook through the online university bookstore, [BNC Virtual](#),

Course Outcomes

Upon completion of this course, students will be able to

1. Analyze Earth's geologic history by applying principles of relative and absolute dating, interpreting the geologic time scale, and explaining how seismic wave analysis reveals Earth's internal structure.
2. Apply the concept of the electromagnetic spectrum to explain how astronomers collect and interpret data about distant celestial objects, including their composition, motion, and distance.
3. Describe the major components and interactions of Earth's systems—geosphere, hydrosphere, atmosphere, and biosphere—and analyze how energy, water, and matter cycle among them, including the role of ocean circulation in shaping surface features and regulating climate. Students will be able to relate the structure and function of the integument system.
4. Explain the theory of plate tectonics—including convection mechanisms, boundary types, and associated phenomena—and classify rocks by type within the rock cycle, describing the roles of weathering, erosion, deposition, lithification, and metamorphism.

5. Analyze the composition and structure of Earth's atmosphere, explain the factors that drive weather and climate (solar radiation, greenhouse effect, Coriolis effect, air masses, fronts), and distinguish between weather and climate. Students will be able to describe the process of cellular respiration.
6. Evaluate the causes and evidence of both natural and human-driven climate change, including the role of greenhouse gases, feedback loops, and the analysis of paleoclimate data.
7. Apply astronomical concepts to explain observable cyclical phenomena including day/night cycles, seasons, eclipses, and tides. General Education Outcome: Students will be able to apply scientific methodology to problems or investigations in science.
8. Analyze the role of gravity in the formation and behavior of celestial objects, including orbital mechanics (Kepler's Laws), tidal forces, and the gravitational interactions that shape planetary systems.
9. Summarize the origin and evolution of the solar system, stars, galaxies, and the universe.

Course Requirements and Grading Criteria

Course Requirements

1. Review the **entire** course syllabus before beginning the course. Be sure you understand the course procedures and objectives. Procedures do change, so please review **ALL** requirements and policies even if this is not your first course including, but not limited to, administrative withdrawal. Your course status will be affected if policies are not followed.
2. Students who develop a regular time schedule and set goals for unit completion are most successful in completing courses within a specific timeframe.
3. The feedback you receive from the instructor of your work is **critical** to your success on subsequent lessons. These comments allow you to improve and modify the next units if necessary.
4. Assignments are submitted using uiuLearn. Please complete all assignments and modules in order.

5. If the information in your syllabus is not clear or if units are not graded within a reasonable period of time, please contact your instructor using uiuLearn's email tool, if that doesn't work contact the Self-Paced Program office. We would like the opportunity to address concerns, however, we may not know unless we hear from YOU!
6. ALWAYS keep a copy of your completed work when submitting it for grading.

To successfully complete this course, students must:

- Complete all assigned readings
- Engage with lecture content
- Complete module quizzes
- Submit all assignments
- Demonstrate mastery of Earth and space science concept

Grades and Feedback

Assessment of Course Learning Outcomes

Assessment of the course learning outcomes will occur via combination of the following:

- Chapter Questions
- Virtual Labs where available and applicable
- Information acquisition and application papers or slide show presentations
- End of chapter and/or end of module quizzes

| Letter Grade | Percentage |
|--------------|------------|
| A | > 92 |
| A- (minus) | 90-91.9 |
| B+ | 88-89.9 |
| B | 83-87.9 |
| B- (minus) | 80-82.9 |
| C+ | 78-79.9 |
| C | 73-77.9 |

| Letter Grade | Percentage |
|--------------|------------|
| C- (minus) | 70-72.9 |
| D+ | 68-69.9 |
| D | 63-67.9 |
| D- (minus) | 60-62.9 |
| F | <60 |

If you need academic assistance with the course, please feel free to contact the Self-Paced Degree Program office.

To protect the integrity of the final assessment/exam, you only receive your final grade on the exam; you do not receive any feedback on the answers to the exam questions. The answers to the questions on the exam are not shared with students. Please remember to stay academically honest.

Turnitin

Turnitin is a tool for both teachers and students to ensure academic integrity by checking the originality of submitted papers to avoid issues of plagiarism and academic dishonesty. Students should be aware that Turnitin scans submitted work and compares it to ALL other sources on file.

Extension Policy

Students will be allowed to request an extension and receive an 'X' (extension grade) at the end of their original six-month enrollment period if:

- A minimum of one assignment has been received for grading per guidelines **AND**
- All course units and exams are not completed and submitted **OR**
- A course withdrawal has not been initiated.

Note: There is a one-time fee for a self-paced extension per course. Refer to the Prereqcourses.com website for current fees. The request for an extension must be submitted no earlier than one month before the end of the course and no later than a week before the end of the course.

Extension grade details

- When the extension is granted and an “X” grade is issued, the student will receive a four-month enrollment period to complete the course.
- Students do not have the option to withdraw from a course after the initial six-month enrollment period.
- An ‘X’ grade posted to the student’s official record will be replaced with a final letter grade; however, the extension will remain on the official transcript as a notation.
- If the course is not completed by the end of the extension period, the instructor will assign a final grade (A-F) based on work completed in relation to the total course requirements.
- If credit is not earned by the end of the extension period, students can re-enroll and repeat the entire course for credit.

Note: Students are not reported as enrolled during the extension period and are not eligible for student loan deferment. No more than one extension will be granted.

Course Schedule

Module 1: Foundations of Earth Science

(Earth systems, materials, and geologic time)

Chapters 1–4

This module introduces the fundamental concepts of Earth science, including Earth’s major systems, common Earth materials, and the processes used to interpret geologic time. Students will develop a foundational understanding of how Earth operates as an interconnected system and how scientists study its history.

Module 2: Internal Earth Processes

(Plate tectonics, earthquakes, and mountain building)

Chapters 5–8

This module explores the dynamic forces within Earth that drive plate movement and shape the planet’s surface. Students will examine tectonic activity, earthquakes, and mountain formation, gaining insight into how internal energy creates large-scale geologic features and hazards.

Module 3: Surface Processes

(Landscapes, water systems, and soils)

Chapters 9–12

This module focuses on the processes that shape Earth's surface through weathering, erosion, and deposition. Students will study how water, gravity, and soil formation influence landscapes and contribute to ongoing changes in Earth's surface features.

Module 4: Atmosphere and Weather

Chapters 13–16

This module examines the structure and composition of Earth's atmosphere and the processes that drive weather patterns. Students will learn how energy transfer, air movement, and moisture interact to produce daily weather and atmospheric conditions.

Module 5: Oceans and Climate

Chapters 17–18

This module investigates the role of Earth's oceans in regulating climate and supporting global systems. Students will explore ocean circulation, interactions between the ocean and atmosphere, and the factors that influence both short-term climate patterns and long-term climate change.

Module 6: Astronomy

Chapters 19–20

This module introduces the basic principles of astronomy, focusing on the solar system and Earth's place in space. Students will examine the relationships between Earth, the Moon, and the Sun, and explore how celestial motions influence observable phenomena on Earth.

Course Expectations

Students are expected to:

- Complete coursework in a timely manner
- Engage actively with course materials
- Demonstrate academic integrity in all submissions
- Use scientific reasoning and evidence in assignments
- Communicate professionally when interacting with the instructor

Because this course is self-paced:

- Students are responsible for managing their own progress
- Regular engagement is strongly recommended
- All course deadlines (if applicable) must be met

Academic Integrity

All submitted work must be the student's own. Use of outside sources must be appropriately cited. Any form of academic dishonesty may result in disciplinary action in accordance with institutional policies.

Communication

Students should use the course messaging system or email for questions. Responses will typically be provided within 24–48 hours during the work week.

Artificial Intelligence

For the duration of this course, the use of generative artificial intelligence (such as ChatGPT) in assignments is strictly prohibited. Assignments are opportunities for personal growth, critical thinking, and applying your acquired knowledge. Your individual effort and creativity are essential in demonstrating your understanding of the course material. Dependence on AI undermines these objectives and compromises the integrity of the learning process. I appreciate your commitment to academic honesty and dedication to upholding this course's principles by refraining from using Generative AI in your assignments.

Late Work

Late work is not accepted without obtaining an official extension ('X' grade) from the University. See the syllabus policy on Extensions for details.

Professional Writing and Speaking Guidelines

Communications in class and online should follow the Student Conduct and Discipline, Respect for the University Environment, and Code of Student Responsibility in the [Student Handbook](#) (pg. 20 and 21). Respect the opinions of others using appropriate language and communications.

University Policies

Withdrawal (W)

Students who have registered for this course through our partnership prereqcourses.com are required to follow the withdrawal policy outlined on the partnership website. Please refer to the partnership site for official withdrawal procedures, deadlines, and associated fees.

For students enrolled through the prereqcourses.com partnership, no refund is allowed after the first two weeks.

Students who withdraw from a course prior to submitting the first assignment, or who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee.

Administrative Withdrawal (AW)

A grade of AW (administrative withdrawal) is recorded for any course from which a student is administratively withdrawn. **At least one complete assignment/unit must be received and verified by the instructor within the first 60 days of the enrollment period or the student will be administratively withdrawn from the course.** Students who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee. See website for current fees for re-enrollment.

Academic Accommodations

It is the policy of Upper Iowa University to ensure equal access to educational and co-curricular activities to students with disabilities as mandated by the Americans with Disabilities Act Amendments Act (ADAAA) and Section 504 of the Rehabilitation Act of 1973. A student seeking accommodations should contact the Director of Student Accessibility Services as early in the session as possible. In order to receive accommodations, students are required to disclose their disability to the Director by completing an application for services that can be found on the Student Accessibility Webpage. In addition to the application packet, the student is required to submit supporting documentation. Submit these to the Student Accessibility Services Office either in person or by email/Fax. A brief interview, in-person, by phone or virtually, with the Director will confirm or deny the accommodations requested. The Student Accessibility Services Office will email accommodation letters to the appropriate professor, the student, and the student's advisor. Additionally, students should work cooperatively with their

instructors throughout the session to make sure that their accommodations are appropriate and effective.

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Contact the Director at (563) 425-5949, accessibility@uiu.edu or stop by the office on the 2nd floor of the Student Center, Office of Student Life, Room 229.

Emergency Directives: (Fire, Natural Disaster, Threat on campus, etc.)

In accordance with Upper Iowa University's emergency management plan, any student that requires assistance in the event of an emergency (Fire, natural disaster, threat on campus) is responsible for notifying their instructor of the need for assistance. (Evacuation, and/or indoor safety protocols) This information will be held confidential and only needed in the unlikely event that there is an emergency.

Copyright Statement

In recognition of the Copyright Law of the United States (Title 17, United States Code), Upper Iowa University reminds both faculty members and learners that a willful infringement of the law may result in disciplinary action. The University library has available materials discussing the "fair use" concept, along with criteria and guidelines for reproduction and use of copyrighted materials.

This syllabus is subject to change.

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