



Governing Iowa's Public Universities

In accordance with [Board of Regents policy 3.20](#), the following required information is available below:

Fall 2026

- I. Course title and number as designated in the institutional course catalog**
EARTHSCI 1400 Introduction to Environmental Earth Science, 01
- II. A course description including learning objectives that students are expected to achieve by the end of the course**
 - A. Course Description:**
 1. Introduction to the physical, biological, and cultural components of the natural world around us. The primary focus is on global understanding of environmental issues using a scientific approach. Discussion, 3 periods. Prerequisite(s): Students must have satisfied university entrance requirements in English and Mathematics. (Variable)
 - B. Course Level Learning Objectives:**
 1. Explain geological, hydrogeological & meteorological foundations of Earth's environments.
 2. Characterize interactions between humans, other organisms and environmental settings.
 3. Recognize the difference between opinion and scientific knowledge and be able to apply scientific reasoning to support your decisions.
 4. Describe how humans, positively or negatively, affect their landscapes then identify and communicate pathways toward sustainability.
- III. A general outline of the topics to be covered throughout the course:**
 1. Environmental science concepts and principles
 2. Observations, energy and change
 3. Biodiversity and conservation
 4. Geologic principles
 5. Geologic resources and mining
 6. Soil Development, Land use and quality
 7. Environmental health and law
 8. Hydrologic principles and quality
 9. Energy capture and use
 10. Air principles and quality
 11. Economics, policies and regulations
 12. Hazards, risk assessment and mitigation
 13. Decision making



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IV. List of required textbooks, readings, and other materials necessary for the course

Text: Environmental Science and Sustainability, 2nd ed. Sherman & Montgomery

V. General description of the types of assessments used in the course:

Quizzes, Exams, labs/experiential learning