

Geosciences 105 Online: Earth, Air, Fire, and Water UW Interim 2024, January 2 to January 19, 2024



This is an asynchronous ONLINE class. You access the recorded lectures on Canvas at your convenience. There is no face-to-face component for this class.

Course: Earth, Air, Fire, and Water - a study of planet Earth from formation through history to modern-day oceans, atmosphere, continents, and interior; how all interact to form the human environment.

Professor: Dr. Barry I. Cameron

Office: Lapham 340

Office telephone: (414) 229-3136

Email: bcameron@uwm.edu

If you contact me by email on a relevant matter pertaining to the course, I will attempt to get back to you within a few hours Monday to Friday. If you contact me on the weekend, I cannot guarantee a response until the Monday following the weekend.

Textbook: Electronic version of The Good Earth (5th Edition) by McConnell and Steer (McGraw-Hill). The electronic textbook is part of McGraw Hill's Connect, a web-based assignment and assessment platform that gives students the means to better connect with their coursework. Connect is fully integrated into the course through the Canvas site. You can purchase your Connect access code with registration instructions at the UWM virtual bookstore or register directly with McGraw Hill Connect by clicking on one of the assignments for Chapter 1 on the Canvas course site. On the Canvas site, I will post a link to a video to help with this registration and also post a Powerpoint presentation that shows the registration steps under the Introduction tab. Through McGraw Hill Connect on Canvas, you have access to the ebook, the SmartBook exercises and the quizzes for each chapter. The electronic version of the book has note taking, highlighting, and search capabilities. If you prefer a hardcopy of the textbook, this will be an extra expense. You can either purchase a used textbook or McGraw Hill offers paper copies of the textbook at the web site for \$25. Studies show that students using Connect and SmartBook are more likely to finish the course, more likely to pass the course, and usually improve their performance by a full letter grade.

Course and Learning Objectives: This course was devised to represent a modern exploration of Aristotle's four basic elements: Earth, Air, Fire and Water, with the intended objective to forge a more intimate relationship with our home planet. This course will study planet Earth from formation through its extended geological history to modern-day oceans, atmosphere, continents, and interior; how all interact to form the human environment. Students will need to understand topics such as the solar system, plate tectonics, earthquakes, volcanoes, groundwater, severe weather, climate change, and other geological hazards. Students will gain insight into the environmental problems that threaten the modern world so that they can recognize scientific fact from fiction.

Assessment: There are 15 quizzes in this course designed to determine whether students have acquired the knowledge to meet the assessment goals. SmartBook exercises have been assigned to help develop students' understanding of and ability to apply the scientific method and assess data quality. Two detailed GER assignments have been created to assess students' abilities to synthesize scientific information, interpret scientific data, and communicate their conclusions. **Thus, your grade will reflect your performance on the 15 quizzes, SmartBook exercises for each chapter, and the two extra GER assignments.**

GER Statement and Learning Outcomes for this Course: This course meets the UWM General Education Requirements in the division of Natural Sciences. All Natural Sciences courses must satisfy the following learning outcome: "Students will be able to understand and apply the major concepts of a natural science discipline, including its breadth and its relationship to other disciplines" (Natural Sciences (NS) criterion 1). Moreover, this course successfully addresses two additional learning outcomes: "Students will demonstrate an understanding of the process of generating and testing data, and apply this knowledge to the solution of problems" (NS criterion 3) and "discuss and assess the limitations of data and the possibility of alternative interpretations" (NS criterion 4). This course additionally addresses two of the UW System Shared Learning Goals, namely (2) Critical and Creative Thinking Skills and (3) Effective Communication Skills.

Through the quizzes and SmartBook exercises for each chapter, students will be exposed to these learning outcomes. Students will be expected to develop a strong understanding of the principles and scientific creativity employed in geology, learning about the interconnectedness of geology, biology, meteorology, astronomy and chemistry and how they are combined to explore the Earth System (NS criterion 1).

Earth Science should not be about memorizing facts, but rather learning about the exciting scientific experiments carried out in the past to develop a better understanding of our planet Earth. To achieve this goal, students will be assigned two detailed assignments that examine the earthquake recurrent interval on faults from Pallet Creek, California, and the atmospheric carbon dioxide record from Mauna Loa, Hawaii. The assignments will be assigned in association with Chapter 8 Geologic Time (January 10) and Chapter 17 on Global Change (January 15).

Student workload Statement: This course covers 15 chapters in the Good Earth ebook. I expect that you will need to invest a total of 8.5 to 9 hours to successfully complete the work required for each chapter. The breakdown for the work required for each chapter is as follows:

Reading the chapter in the ebook	4 hours
Voiceover Powerpoints and chapter outline	1 hour
Practice Quiz and SmartBook exercises	1 hour
Studying and Chapter Graded Quiz	1 hour
Chapter animations/checkpoints	1 hour
Discussions/Assignment work	1 hour
Total Work per Chapter	9 hours
Total Semester	135 hours

Geosciences 105 Online, UWinteriM 2024

Recommended Timetable

This is only a **recommended** timetable; in this modified UPace class, you have the freedom to cover the material at a pace that is comfortable to you. However, please note that there are only 17 days in the Winterim semester and 15 chapters to cover, so you have to complete a chapter pretty much every day. Please note that **Chapters 10 and 16** are **not** covered in this course. Below is only a **suggested** timetable. I roll out five chapters at a time, at the start of the Winterim semester (January 2), another five chapters on January 7, and then the final five chapters on January 12, 2024. You will have to be very disciplined to achieve an A in this course!

Online Lecture	Chapter	Chapter Quiz	Suggested Completion Date
1A and 1B	1: Introduction to Earth Science	1	January 3, 2024
2A and 2B	2: Earth in Space	2	January 4, 2024
3A and 3B	3: Near Earth Objects	3	January 5, 2024
4A and 4B	4: Plate Tectonics	4	January 6, 2024
5A and 5B	5: Earthquakes	5	January 7, 2024
6A and 6B	6: Volcanoes	6	January 8, 2024
7A and 7B	7: Rocks and Minerals	7	January 9, 2024
8	8: Geologic Time	8	January 11, 2024
9A and 9B	9: Weathering and Soils	9	January 12, 2024
11A and 11B	11: Streams and Floods	11	January 13, 2024
12A and 12B	12: Groundwater	12	January 14, 2024
13A and 13B	13: Oceans	13	January 15, 2024
14A and 14B	14: Atmosphere	14	January 16, 2024
15A and 15B	15: Weather Systems	15	January 17, 2024
17	17: Global Change	17	January 18, 2024

Resources

Voiceover Powerpoint Lectures: Online voiceover Powerpoint lectures are found on the Canvas site as flash presentations. Most computers should run the flash presentations automatically, but if you have a problem opening the presentations you can download the most recent version of flashplayer by visiting:

<http://www.adobe.com/products/flashplayer/>

For most chapters, there are normally two voiceover lectures to cover the topic of the chapter. I have tried to keep my comments on the presentations to a minimum to keep the file size small and manageable. Also, the voiceover Powerpoints do not attempt to cover every topic in the chapter, it is simply an overview of the main points. You will still need to read each chapter carefully. I have updated all the voiceover PowerPoints to go along with the 5th edition of the textbook.

Lecture Outlines: Bulleted outlines for the online lectures are also found on the Canvas site as Microsoft Word documents. These outlines largely summarize the voiceover PowerPoint presentations and should be a nice beginning for your own notes.

Various Animations: Some chapters offer animations developed by the publisher that will help illustrate critical processes in the earth sciences. These can be watched and studied to aid students in their comprehension of important processes and ideas.

Graded Quizzes, Assignments and Grading Scheme

For each chapter, you will see on the Canvas site (integrated with McGraw Hill Connect) that you have an optional Practice Quiz and two graded assignments. The Practice Quiz for each chapter allows you to master the material covered. The Practice Quiz does not factor into your grade for the course, it serves only to assist you get a better grade on the graded Quiz. The first assignment involves mastering the chapter content using **SmartBook** on Canvas. If you complete 25 learning concepts then you get 50 points. McGraw Hill estimates that 25 learning concepts should take between 30-45 minutes. Please note that SmartBook requires that you are actively attempting practice exercises to get credit for the time invested. You cannot simply open the SmartBook module and let it sit idly and gain credit – you must be engaged. The other assignment is a graded **chapter quiz** worth 100 points. You get two attempts at each quiz, and I will take the higher score of your two attempts. Each quiz is a random selection of ten multiple choice questions and in some chapters some True/False questions. You get 12 minutes for each quiz. Thus, with 150 points available in each chapter and 15 chapters to cover, the total number of points available is 2250 points. You have only 12 minutes for each quiz so use of your ebook will be minimal during the quiz. Some quiz questions are provided by the publisher of the textbook and some are mine. Many of the questions require critical thinking skills and are not simply facts that you can look up in the textbook. Additionally there are **two critical thinking GER assignments** with deadlines each worth 100 points (100x2=200 pts) to master GER learning outcomes, so the grand total is 2450 points. Your score will be calculated as a percentage (out of 100) and then your final letter grade will be assigned according to a standard university scale.

Course Score	Grade
>93.3 %	A
90-93.3%	A-
86.7-90.0%	B+
83.3-86.7%	B
80.0-83.3%	B-
76.7-80.0%	C+
73.3-76.7%	C
70.0-73.3%	C-
67.7-70.0%	D+
63.3-67.7%	D
60.0-63.3%	D-
<60	F

Statement for Students with Disabilities

The University of Wisconsin Milwaukee supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform me of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. I will work either directly with the student or in coordination with the Accessibility Resource Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.

Links to relevant **university policies**:

1. *Students with disabilities*. Verification of disability, class standards, the policy on the use of alternate materials and test accommodations can be found at the following:
<http://www.uwm.edu/Dept/DSAD/SAC/SACltr.pdf>
2. *Religious observances*. Policies regarding accommodations for absences due to religious observance are found at the following:
http://www.uwm.edu/Dept/SecU/acad%2Badmin_policies/S1.5.htm
3. *Students called to active military duty*. Accommodations for absences due to call-up of reserves to active military duty should be noted.
<http://www3.uwm.edu/des/web/registration/militarycallup.cfm>
4. *Incompletes*. The conditions for awarding an incomplete to graduate and undergraduate students can be found at the following:
http://www.uwm.edu/Dept/SecU/acad%2Badmin_policies/S31.pdf
5. *Discriminatory conduct (such as sexual harassment)*. Definitions of discrimination. Harassment, abuse of power, and the reporting requirements of discriminatory conduct are found at the following:
http://www.uwm.edu/Dept/SecU/acad%2Badmin_policies/S47.pdf
6. *Academic misconduct*. Policies for addressing students cheating on exams or plagiarism can be found at the following:
<http://www.uwm.edu/Dept/OSL/DOS/conduct.html>
7. *Complaint procedures*. Students may direct complaints to the head of the academic unit or department in which the complaint occurs. If the complaint allegedly violates a specific university policy, it may be directed to the head of the department or academic unit in which the complaint occurred or to the appropriate university office responsible for enforcing the policy.
8. *Grade appeal procedures*. Procedures for student grade appeal appear at the following:
http://www.uwm.edu/Dept/SecU/acad%2Badmin_policies/S28.htm
9. *Final examination policy*. Policies regarding final examinations can be found at the following:
http://www.uwm.edu/Dept/SecU/acad%2Badmin_policies/S22.htm

Getting access to & getting help for a course that uses Canvas for its Web site

UWM Students, Instructors and Affiliates with ePantherIDs

1. Visit the Canvas website.
 1. Option 1: visit the UWM Canvas website directly (<https://uwm.edu/canvas>).
 2. Option 2: visit the UWM website (<https://uwm.edu>). Click either Current Students or Faculty / Staff at the top of the page and click Canvas.
2. Click the Log Into Canvas button.
3. When prompted, enter your UWM ePantherID (the first part of your UWM email address, before but not including the "@uwm.edu") and your password. Click the Login button to continue.

Did you encounter an error message? If so, then contact the UWM IT Help Desk at 414-229-4040. The direct help line or Canvas is 833-826-8713.

UW-Milwaukee Covid-19 Statement

Winterim 2024 Semester

*As a fully online course, many Covid policies do not necessarily apply.

Panther Community Health and Safety Standards: UWM has implemented health and safety protocols, taking into account recommendations by local, state, and national public health authorities, in response to the COVID-19 pandemic. As a member of our campus community, you are expected to abide by the Panther [Interim COVID-Related Health & Safety Policy](#), which was developed in accordance with public health guidelines. These standards apply to anyone who is physically present on campus, UWM grounds, or participating in a UWM-sponsored activity:

- UWM recommends that all individuals visiting UWM facilities wear face coverings while indoors.
- UWM recommends getting vaccinated for COVID-19 and getting the most recent booster shot available to you.
- UWM requires that you check daily for COVID-19 symptoms and not come to campus if you are feeling sick. If you are feeling sick, get tested for COVID-19 and quarantine until symptoms subside. Use the [CDC Quarantine and Isolation Calculator](#) to determine next steps.
- If you test positive for COVID-19, UWM requires that you self-report at the [Dean of Students Reporting Form](#). Use the [CDC Quarantine and Isolation Calculator](#) to determine next steps.

Additional details about student and employee expectations can be found on the [UWM COVID-19 webpage](#).