



**Course Syllabus: Historical Geology**  
**McCoy College of Science, Mathematics, and Engineering**  
Lecture - GEOS 1234 Section 101  
Fall 2024  
Monday, Wednesday, Friday 9:00-9:50 am | Dillard 175

**Laboratory Sections**

Attend Only the Section You are Registered for!  
GEOS 1234 Section 11A: T 1-2:50 pm | Bolin 117 | TA Matthew Kaspar  
GEOS 1234 Section 11B: T 3-4:50 pm | Bolin 117 | TA Adeleye Adedokun  
GEOS 1234 Section 11A: T 1-2:50 pm | Bolin 117 | TA Matthew Kaspar

**[Course D2L Site](#)**

**Contact Information**

Instructor: Dr. Steven J. Rosscoe  
Office: Pierce Hall, Room 204  
Office hours: MWF 10-10:50 am, 12-12:50 pm | By Appointment | [Zoom Meeting Link](#)  
Office phone: (940) 397-4448 (Note: E-mail is the preferred method of communication)  
E-mail: [steven.rosscoe@msutexas.edu](mailto:steven.rosscoe@msutexas.edu)

**Course Description**

Formation and evolution of the Earth from its origins to the present. Special focus is placed on integrating geological and biological concepts through Earth history, including plate tectonics, mountain building, and major evolutionary events. Additional emphasis is placed on connections to societal issues, including mass extinctions and global climate change.

**Course Learning Objectives**

The successful completion of this course will be evaluated around the following course learning objectives. Each of these course learning objectives include aspects of both content knowledge and skills development. Students will:

1. Investigate the foundational principles used in unraveling the history of the Earth (plate tectonics, deep time, evolution).
2. Develop an understanding of the major geological and evolutionary events that have occurred throughout geologic time.

3. Apply these understandings to the geology of Texas, Oklahoma, and unique geological environments across the United States.
4. Develop proper laboratory skills and analytical techniques that are foundational to the study of the geological sciences (mineral and rock identification, basic fossil identification environmental interpretation, and correlation).

## **Textbook & Instructional Materials**

### Required Textbooks:

- Hazen, Robert M. 2013. *The Story of Earth: The First 4.5 Billion Years, From Stardust to Living Planet*. Penguin, 306 p. ISBN 9780143123644
- Brannen, Peter. 2017. *The Ends of the World: Volcanic Apocalypses, Lethal Oceans, and Our Quest to Understand Earth's Past Mass Extinctions*. Harper Collins, 322 p. ISBN 9780062364814

### Podcast Project Reading:

You are required to select one of the following books to read and review for you course podcast project. These books are available in traditional formats and also available as audiobooks on Audible.

- Benton, Michael J. 2015. *When Life Nearly Died: The Greatest Mass Extinction of All Time*. Thames & Hudson, 352 p. ISBN 9780500291931
- Egan, Timothy. 2006. *The Worst Hard Time: The Untold Story of Those Who Survived the Great American Dust Bowl*. Mariner Books Classics, 353 p. ISBN 9780618773473
- Prothro, D. R. 2018. *When Humans Nearly Vanished: The Catastrophic Explosion of the Toba Volcano*. Smithsonian Books, 208 p. ISBN 9781588346353
- Shubin, Neil. 2009. *Your Inner Fish: A Journey into the 3.5-Billion-Year History of the Human Body*. Vintage, 256 p. 9780307277459
- Weiner, Jonathan. 1995. *The Beak of the Finch: A Story of Evolution in Our Time*. Vintage, 332 p. ISBN 9780679733379

### Required Computer Applications:

- Microsoft Office: Word, PowerPoint [Free Access to Microsoft Office 365](#)
  - Required for completion of laboratory activities.
- Minecraft Bedrock Edition [Microsoft Store for Minecraft](#)
  - Required for completion of laboratory activities in the final laboratory module.
  - Regular price access is \$29.99 (then you have it for life).
  - Must be compatible with Minecraft Realms to work for the lab.
    - Bedrock Edition is preferred.
    - Mobile and Console appear to work well.
    - Do not use the Java Edition
- PDF Reader
  - PDFs are used to provide some course materials; a browser PDF reader or Adobe Acrobat will be necessary to view them.

### Recommended Textbooks (Not Required):

- Wicander, R. and Monroe, James S. 2016. *Historical Geology: Evolution of Earth & Life Through Time, 8<sup>th</sup> Edition*. Cengage Learning. 448 p.

Supplemental Laboratory Readings Provided in D2L as PDFs:

- Rosscoe, Steven J. 2024. Earth Materials.
- Others as Necessary

### Grading

The formal grade for this course is determined by your performance on lecture exams, podcast project, laboratory activities, and laboratory quizzes.

Table 1: Points allocated to each assignment type. For more details see assignment descriptions below.

Assignments (Quantity)	Points
Lecture Examinations (4/5)	200
Podcast Project (1)	100
Lab Activities (12)	240
Laboratory Quizzes (3)	060
Total Points	600

Table 2: Total points for final grade.

Grade	Points
A	540 and up
B	480 to 539
C	420 to 479
D	360 to 419
F	Less than 360

Lecture Examinations (Online)

During the semester there will be five examinations given online through the D2L course management system (50 points each). These examinations are to be taken at the end of each module, after you have watched and taken notes on all video lecture and read the required readings. Examinations will be available for you to take as early as the opening date of the module. You may take the examination at any point during the three-week-long module, but must complete it by the module due date. The examinations will consist of 50 multiple choice questions (1 point each). The multiple-choice questions will focus on vocabulary and key concepts and Earth processes. You will have 60 minutes to complete each examination. Exams will close and auto submit after 60 minutes.

- Examinations are individual exercises.
- You may not take examinations with each other.
- You may not use internet resources while taking the examination.
- You may use your course textbooks and your lecture notes from class.
- You are responsible for studying and learning the material before taking the examination (~1 minute per question is standard and more than enough time if you have properly studied for the examination).

- You will not have enough time to look up every question if you do not study in advance for the examination. Study is key.

Table 3: The table below shows the unlock date/time, due date/time, and topic for each exam.

Examination	Due Date
Exam 1: Time and Geology	Sunday 09/22/2024
Exam 2: Evolving Earth and Life	Sunday 10/13/2024
Exam 3: Precambrian Earth	Sunday 11/03/2024
Exam 4: Paleozoic Earth	Sunday 11/24/2024
Exam 5: Mesozoic-Cenozoic Earth	Monday 12/09/2024 (Exam Day)

### Podcast Project (Online/Group)

One of the driving themes in a Historical Geology course is that of change. The Earth and the life upon it are constantly changing. These changes are often complicated and inter-related between life and the Earth. As such, the dynamic changes of our planet are key to understand. In a course, the lecture material must only graze and highlight some of the important changes in Earth history. But you should also take time to learn about one of these changes in a detailed way.

- Group selects podcast topic [5 points total] – a list of available topics is available in D2L under the Podcast Project module (the books for those topics can be found under the Podcast Project Readings heading, earlier in this syllabus). Discuss with your group and select the topic your group would like to complete. Send Dr. Roscoe an e-mail with your group’s selection by the topic selection due date. Each topic is limited to two groups. Topics are assigned on a first-come basis. When a topic is selected and approved, the group members names will be placed next to it in D2L. [5 points]
- Group meeting with professor [15 points total] – Between July 22 and July 25, 2024 the group (all members) must schedule and participate in a Zoom meeting with Dr. Roscoe.
  - The group must show that they have been working by explaining how they have worked so far [5 points as a group].
  - The group must have prepared an outline for their podcast that shows how the time will be divided, the role of each group member in the podcast, and some level of detail about the information being presented for specific components [5 points as a group].
  - The group demonstrates that everyone is participating, has knowledge of the topic, and everyone attends and participates in the scheduled meeting [5 points for individuals].
- Group submits a completed podcast audio file [80 points total] – At the due date each group will submit their final podcast audio file. The following describes the required components and grade distribution.
  - The audio file is the appropriate format (audio only: .mp3, .m4a, .wma OR video: .mp4, .wmv) [2.5 points as a group].
  - The audio file is submitted on time [2.5 points as a group].
  - All group members introduce themselves by name and major [2 points for individuals]
  - Component 1: Introduction – The host/co-hosts of the podcast introduce the book and the topic. In this segment a brief summary (highlights) of the book should be discussed. The

- two content heavy components (2 & 3) should be introduced to show how the podcast will move forward [10 points as a group].
- Component 2: Deep-Dive Subtopic A – The host/co-hosts interact with “experts” sharing detailed information on one major aspect of the topic presented in the book. This section should include not only a summary of the information on the topic, but details on the topic and a discussion of the importance of this topic [20 points as a group].
  - Component 3: Deep-Dive Subtopic B – The host/co-hosts interact with “experts” sharing detailed information on another major aspect of the topic presented in the book. This section should include not only a summary of the information on the topic, but details on the topic and a discussion of the importance of this topic [20 points as a group].
  - Component 4: The host/co-hosts review the book, give it a rating (ex: 4/5), discuss the entertainment quality of the book, the scientific quality of the book, the overall value of the book to the understanding of science and historical geology. The other group members should participate here as well (either as experts or as themselves) [10 points as a group].
  - Individual Participation: All group members participate in at least one component of the podcast [5 points for individuals].
  - Overall Audio Quality: the podcast is recorded in a manner that all speakers are easily understandable with little background noise and distraction (room tone is good actually, just not overwhelming) [3 points as a group].
  - Performance Quality: each speaker is practiced and understandable and does not sound as if reading from a script [3 points for individuals].
  - Podcast Length: must be five minutes in length (extra credit commercial doesn’t count toward time). [2 points as a group]
  - Extra Credit Commercial: each group has the option to make a fun commercial related to the topic being discussed. The commercial should be 20 to 30 seconds in length. [+3 points as a group]

Table 4: The table shows checkpoints and deadlines for the group podcast project for the semester.

Checkpoint/Deadline	Due Date	Format
Group Selects Podcast Topic	Monday 09/16/2024	E-mail
Group Meets with Professor	Monday 10/21/2024	Zoom Meeting
Podcast Submitted	Monday 11/18/2024	File Upload

### Lab Activities (In Lab)

The historical geology course requires the completion of 12 laboratory activities. If you do not complete the lab activities, the statistical odds are that you will fail the course. Each lab is worth 20 points. Due dates for each lab can be found on the course due dates table (last page of this document). There is one bonus lab activity in the third lab unit of the course. This can be used to earn bonus points (up to 20) for your overall lab activity grade.

For most of the laboratory activities you will have:

- A prelab reading (read before doing the activity).
- A video introduction to the laboratory material (view before doing the activity).
- Lab handouts provided in the lab.
- Activity materials (Video, PowerPoints, Documents).

Each lab must be completed by its due date as listed on the last page of the syllabus. This allows the instructor to grade quickly and for you to see how you are doing before taking the lab module quiz (see lab quizzes below).

Labs are submitted through a quiz on D2L. The quizzes will include multiple choice, written response, and upload questions as needed. These quizzes are not timed but are due by 11:59 pm on their scheduled due date.

#### Laboratory Quizzes (Online)

To test your laboratory skills and ability to use the techniques taught throughout the lab you will be three laboratory quizzes. The first quiz covers the Earth Materials laboratories (Labs 1 to 5). The second quiz covers the Life on the Rocks laboratories (Labs 6 to 8). The third and final quiz covers the Visualizing Earth and Earth History laboratories (Labs 9 to 12). You will need to study throughout the semester to prepare for these laboratory examinations.

The quizzes are provided through D2L and may include a mix of multiple choice, written response, and file uploads. Each quiz is worth 20 points. The quizzes will be timed in a manner that allows appropriate time to complete the quiz questions but prevent looking up each answer, you will have two attempts to complete each the quiz. The highest quiz grade will be the one used for your course grade calculation. The time limit for the quiz will be clearly indicated in the quiz description in D2L. You must study and prepare for these quizzes. Lab quizzes are due by 11:59 pm on the dates indicated on the last page of this syllabus.

#### Extra Credit (Online)

The only extra credit opportunities in this course will be given to the entire class, do not ask for individual extra credit. There is one planned extra credit activity (Introduce Yourself Extra Credit (see details in D2L). Additional extra credit assignments may be assigned as the semester progresses at the discretion of the instructor. Extra credit assignments are assignments that have due dates; no late credit will be given.

#### Late Work

This is an online course where each assignment has a week or more of lead time before their due date. **\*No late work will be accepted.** Missed labs and examinations may be made up with a legal, paper-documented, excuse.

#### Make-Up Work/Tests

For legal, paper-documented excuses make-ups for labs and examinations can be completed. Make-up work should be arranged for in advance wherever possible. The instructor will give you a new deadline that is reasonable for the course timeline. **\*No make-up work (lecture or lab) will be allowed beyond 10 days past the original deadline.**

The group project cannot be made-up as it requires active participation in the group throughout the semester. While your group should work with your schedule to include you and reschedule meetings due to illness, if you do not participate at all you will not be able to make-up the assignment.

Note: You must complete the assignments, laboratories, and examinations presented in this syllabus. No substitute assignments will be allowed to compensate for poor performance or missed deadlines.

## **Instructor Class Policies**

The following policies are the policies that are integral for our successful completion of the course and should be read thoroughly. If you have any questions, please see the instructor.

### Academic Honesty

Academic dishonesty is considered cheating, collusion, and plagiarism. Any unauthorized assistance during the completion of assignments, using on aids beyond those authorized for an assignment, or the use of other people or services to complete assignments is considered cheating. Working with others in a way that is not authorized by the instructor to complete assignments is considered to be collusion. Plagiarism is the use of another person's materials (by paraphrase or direct quotation) without giving them full and clear acknowledgement. The use of material prepared by another person or agency selling term papers and academic materials is also considered plagiarism.

The use of any artificial intelligence (AI) in completing course assignments is NOT allowed. AI in this sense is any technology that summarizes, writes, or answers questions on its own. Recent court rulings have allowed lawsuits to go forward against Chat GPT and other AI operators because it directly plagiarizes the use of others. College is about you learning to write, you developing your voice, and you learning how to process, summarize, and properly cite information. Any use of AI is considered a violation of this academic honesty policy.

If a student is caught cheating, colluding, or plagiarizing on any assignment the assignment grade will automatically be a zero. Two or more violations will result in failure of the course.

### Classroom Civility (IMPORTANT)

Learning, especially in science, can be a very challenging process. Learning often requires putting yourself out there and being vulnerable. Science also happens to be at the forefront of information which may conflict with personal beliefs. Your beliefs are yours and nothing will change that, though those beliefs may not get you credit on the exam. We are focused on science and what understandings have been developed in the field. Additionally, no scientist thinks the same way as every other scientist. To develop the best understandings of our universe, we must seek input from all people in the field.

In my classroom, we strive to create an environment where everyone is respected and valued for who they are. We are all here together, learning together, and working toward the same goal. This is not a place for hate of any kind. The use of derogatory language, hate speech, or violence is absolutely unacceptable in this classroom and in any setting related to the course. Learn to work with and value all people. Be civil and treat each other with respect. Do your best to listen to each other, in any conversation. Use of derogatory language, hate speech, or violence will result in removal to the classroom or the course.

Dr. Rosscoe (me) is available to help if you have any concerns or questions about building a positive classroom environment. The campus also has numerous resources related to a safe and welcoming experience at MSU. Also, don't forget the MSU Safety App.

- [MOSAIC Cross Cultural Center](#): Works to create a campus community where all students feel included, affirmed, and successful.
- [Title IX Misconduct](#): Dating violence, sexual assault, sexual harassment, stalking, and other forms of sexual misconduct.
- [Bias Incident Reporting](#): Bias and hate incidents related to race, gender, or sexual identity.
- [Disability Grievance Procedures](#): Discrimination on the basis of disability.

#### COVID-19 and Illnesses

Since COVID-19, classroom health has been a necessary and probably long overdue focus. While there are no longer COVID-19 policies in place by the university the following procedures are scientific best practices. These same principles can be applied to any viral infection (flu, cold, etc.).

- If you become ill and have symptoms, get tested.
- If you are positive for COVID-19, stay home. It's good for your recovery and good for protecting your peers.
- Illness happens and if you absolutely must be in public, wear a mask. Even a cloth mask reduces the chance you will spread the illness to others.
- If you stay home or miss assignments, be sure to get a Doctor's note and excuse. It lets me help you make things up.

In the case of long-term illnesses or medical situations that will prevent you from attending classes regularly, contact the professor (me) as soon as possible. We will work together to make sure that you can succeed, just make sure it's Doctor-documented. I can't do much to help, if I don't know until the day before the semester ends.

#### Electronic Devices

Use of electronic devices for taking notes is allowed in my classroom. Recording (audio or video) is not allowed unless approved by the instructor for educational purposes. The use of social media or streaming anything is not an appropriate use of technology during class. If your use of technology is non-educational or is being disruptive to your peers, you will be asked to leave.

#### Course Grade and Grade Bumps

In my courses, a grade is earned by accumulating points throughout the semester. The grade you earn in the course is determined by the number of points you earn through the timely completion of assignments. As such, at the end of the semester, there are no grade bumps given out. Do not ask how or if you can be bumped up to the next letter grade, if you haven't earned the points, you will not be able to get that grade.

If you believe there to be an error in the calculation of your grade, whether it is on a specific assignment or the whole course feel free to ask me to re-evaluate and double check. I will do so happily. For specific assignments, be prepared to give me specific reasons you feel the grade is wrong (which wrong answer do you think was right, etc.).



### Desire-to-Learn (D2L)

Extensive use of the MSU D2L learning management system is required in this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into D2L through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

### Computer Requirements

Taking this course involves the completion of all lecture exams, reading quizzes, and discussions in the course learning management system (D2L). This class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. **\*Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.** Computers are available on campus in various areas of the buildings as well as the Academic Success Center. **\*Your computer being down is not an excuse for missing a deadline!!** There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into D2L.

### Inclement Weather Policy

In cases of extreme weather events that delay or close campus and where those delays or closures impact the course:

- If the closure or delay includes lecture meeting time, the lecture will not meet and the lecture schedule for the semester will be modified.
- If the closure or delay includes a laboratory meeting time, the laboratory will not meet and all remaining laboratory meetings for the week will be cancelled to keep the lab sections on the same schedule. Lab due dates and lab quiz dates will be adjusted.
- If due dates are impacted by the delay or closure, they will be rescheduled.
- All changes to the course schedule will be posted, in writing, in D2L.
- NOTE: Because all students do not have equal or reliable access to technology and internet, especially in times of inclement weather, we WILL NOT shift to online in cases of inclement weather.

## University Policies and Information

The following information and policies apply to this course. Please read each of these policies and ask your instructor if you have any questions.

### Important Dates

- First Day of Classes: August 26, 2024
- Last Day to Change Schedule and Late Registration: August 29, 2024
- Labor Day Holiday: September 2, 2024
- Deadline to File for December Graduation: September 23, 2024
- Last Day for a Grade of W: November 25, 2024
- Thanksgiving Holiday: November 27-29, 2024
- Final Exams Begin: December 14, 2024

### Attendance

Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records on a daily basis. The instructor must give the student a verbal or written warning prior to being dropped from the class. Instructor's records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies.

### Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

### Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

### Services for Students with Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring

accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

#### Campus Carry Rules/Policies

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. The new Constitutional Carry law does not change this process. Concealed carry still requires a License to Carry permit, and openly carrying handguns is not allowed on college campuses. For more information, visit [Campus Carry Rules and Policies](#)

#### Active Shooter

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by MSU Police Department regarding the options and strategies we can all use to stay safe during difficult situations. For more information, visit [Safety / Emergency Procedures](#).

#### Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by MSU. Adult students may smoke only in the outside designated-smoking areas at each location.

#### Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

#### Grade Appeal Process

Following the appropriate procedure for grade appeals requires you to speak to your instructor first, so talk to your instructor. Students who wish to appeal a grade should consult the Midwestern State University [Undergraduate Catalog](#).

### Lecture Topic Schedule for Fall 2024

The following is the schedule for the lecture topics we will study during the semester. This schedule will vary over the semester as some topics may move quicker or slower than expected. At the end of each unit, if there is time we will hold an impromptu review session. Readings are indicated from the required textbooks are indicated where appropriate, though students should read the two course textbooks prior to the start of Unit 3 (Week 7). The recommended text has topics that align very nicely with each topic in the lectures. Note: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

Week	Dates	Monday Topic	Wednesday Topic	Friday Topic
1	Aug 26-30	Introduction <i>No Readings</i>	Science <i>No Readings</i>	Historical Geology <i>No Readings</i>
2	Sept 02-06	Labor Day Holiday <i>No Classes</i>	Deep Time <i>No Readings</i>	Relative Age <i>No Readings</i>
3	Sept 09-13	Relative Age <i>No Readings</i>	Absolute Age <i>No Readings</i>	Geologic Time Scale <i>No Readings</i>
4	Sept 16-20	Continental Drift <i>No Readings</i>	Seafloor Spreading <i>No Readings</i>	Plate Tectonics <i>No Readings</i>
5	Sept 23-27	Plate Boundaries <i>No Readings</i>	Plate Boundaries <i>No Readings</i>	Hot Spots <i>No Readings</i>
6	Sept 30 – Oct 04	Selection <i>No Readings</i>	Speciation <i>No Readings</i>	Evolution <i>No Readings</i>
7	Oct 07-11	The Big Bang <i>Hazen Ch. 1</i>	Birth of Earth <i>Hazen Ch. 1</i>	A New Moon <i>Hazen Ch. 2</i>
8	Oct 14-18	Crustal Evolution <i>Hazen Ch. 3, 4</i>	Water/Atmosphere <i>Hazen Ch. 4</i>	Origin of Life <i>Hazen Ch. 6</i>
9	Oct 21-25	Oxidation <i>Hazen Ch. 7</i>	Supercontinents <i>Hazen Ch. 8, 9</i>	A Complicating Life <i>Hazen Ch. 10</i>
10	Oct 28 – Nov 01	Paleozoic Intro <i>No Readings</i>	Mobile Belts <i>No Readings</i>	Paleozoic CFCs <i>No Readings</i>
11	Nov 04-08	Appalachians <i>No Readings</i>	Pangaea <i>No Readings</i>	Pangaeian Origin <i>No Readings</i>
12	Nov 11-15	Diversifying Life <i>Brannen Ch. 1</i>	Mass Extinctions <i>Brannen Ch. 2, 3</i>	Mass Extinctions <i>Brannen Ch. 4</i>
13	Nov 18-22	Meso-Ceno Intro <i>No Readings</i>	Cordilleran Orogeny <i>No Readings</i>	Evolving Continent <i>No Readings</i>
14	Nov 25-29	Diversification <i>Hazen Ch. 10</i>	Thanksgiving Holiday <i>No Classes</i>	Thanksgiving Holiday <i>No Classes</i>
15	Dec 02-06	Diversification <i>Hazen Ch. 10</i>	Extinction <i>Brannen Ch. 5-7</i>	The Future <i>Hazen Ch. 11</i>

### Laboratory Activity Schedule For Fall 2024

The following is a table of all laboratory activities required for the successful completion of this course in Historical Geology. Pre-laboratory readings and activities are indicated for each topic, if required. Minecraft activities should be completed prior to attending lab, but this is not required. All laboratory activities are due by 11:59 pm on the Friday following the lab meeting. NOTICE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

<b>Week</b>	<b>Dates</b>	<b>Tuesday Labs</b>	<b>Wednesday Lab</b>
1	Aug 27, 28	No Lab Meetings <i>First Week of Classes</i>	No Lab Meetings <i>First Week of Classes</i>
2	Sept 03, 04	No Lab Meetings <i>Lab Preparation Week</i>	No Lab Meetings <i>Lab Preparation Week</i>
3	Sept 10, 11	Lab 1 – The Rock Forming Minerals <i>Earth Materials Ch. 1, Pre-Lab Vid.</i>	Lab 1 – The Rock Forming Minerals <i>Earth Materials Ch. 1, Pre-Lab Vid.</i>
4	Sept 17, 18	Lab 2 – The Igneous Rocks <i>Earth Materials Ch. 2, Pre-Lab Vid.</i>	Lab 2 – The Igneous Rocks <i>Earth Materials Ch. 2, Pre-Lab Vid.</i>
5	Sept 24, 25	Lab 3 – The Clastic Sed. Rocks <i>Earth Materials Ch. 3, Pre-Lab Vid.</i>	Lab 3 – The Clastic Sed. Rocks <i>Earth Materials Ch. 3, Pre-Lab Vid.</i>
6	Oct 01, 02	Lab 4 – The Non-Clastic Sed. Rocks <i>Earth Materials Ch. 4, Pre-Lab Vid.</i>	Lab 4 – The Non-Clastic Sed. Rocks <i>Earth Materials Ch. 4, Pre-Lab Vid.</i>
7	Oct 08, 09	Lab 5 – The Metamorphic Rocks <i>Earth Materials Ch. 5, Pre-Lab Vid.</i>	Lab 5 – The Metamorphic Rocks <i>Earth Materials Ch. 5, Pre-Lab Vid.</i>
8	Oct 15, 16	Lab 6 – Single-Cell & Colonial Life <i>Pre-Lab Video</i>	Lab 6 – Single-Cell & Colonial Life <i>Pre-Lab Video</i>
9	Oct 22, 23	Lab 7 – Common Invertebrates <i>Pre-Lab Video</i>	Lab 7 – Common Invertebrates <i>Pre-Lab Video</i>
10	Oct 29, 30	Lab 8 – Other Fossil Life <i>No Pre-Lab Materials</i>	Lab 8 – Other Fossil Life <i>No Pre-Lab Materials</i>
11	Nov 05, 06	Lab 9 – Topographic Maps <i>PDF Reading, Minecraft Pre-Lab</i>	Lab 9 – Topographic Maps <i>PDF Reading, Minecraft Pre-Lab</i>
12	Nov 12, 13	Lab 10 – Geologic Maps <i>PDF Reading, Minecraft Pre-Lab</i>	Lab 10 – Geologic Maps <i>PDF Reading, Minecraft Pre-Lab</i>
13	Nov 19, 20	Lab 11 – Measured Sections <i>PDF Reading, Minecraft Pre-Lab</i>	Lab 11 – Measured Sections <i>PDF Reading, Minecraft Pre-Lab</i>
14	Nov 26, 27	No Lab Meetings <i>Thanksgiving Break</i>	No Lab Meetings <i>Thanksgiving Break</i>
15	Dec 03, 04	Lab 12 – Correlation <i>PDF Reading, Minecraft Pre-Lab</i>	Lab 12 – Correlation <i>PDF Reading, Minecraft Pre-Lab</i>

### All Course Due Dates in Chronological Order

The following table lists the due dates of each assignment in the course. All items are due at 11:59 pm on the date for which they are due (except for group meetings with instructor which must be completed to weekday work hours). NOTICE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.

<b>Due Date</b>	<b>Assignment</b>
Friday 09/06/2024	Introduce Yourself Extra Credit
Friday 09/13/2024	Lab 1 – The Rock Forming Minerals
Monday 09/16/2024	Podcast Project Group Selections
Friday 09/20/2024	Lab 2 – The Igneous Rocks
Sunday 09/22/2024	Examination 1: Time and Geology
Friday 09/27/2024	Lab 3 – The Clastic Sedimentary Rocks
Friday 10/04/2024	Lab 4 – The Non-Clastic Sedimentary Rocks
Friday 10/11/2024	Lab 5 – The Metamorphic Rocks
Sunday 10/13/2024	Examination 2: Evolving Earth and Life
Friday 10/18/2024	Lab 6 – Simple and Colonial Life
Sunday 10/20/2024	Lab Quiz 1 – Earth Materials
Monday 10/21/2024	Podcast Project Group Meetings With Instructor
Friday 10/25/2024	Lab 7 – Common Invertebrates
Friday 11/01/2024	Lab 8 – Other Fossil Life
Sunday 11/03/2024	Examination 3: Precambrian Earth
Friday 11/08/2024	Lab 9 – Topographic Maps
Sunday 11/10/2024	Lab Quiz 2 – Life on the Rocks
Friday 11/15/2024	Lab 10 – Geologic Maps
Monday 11/18/2024	Podcast Audio File
Friday 11/22/2024	Lab 11 – Measured Sections
Sunday 11/24/2024	Examination 4: Paleozoic Earth
Friday 12/06/2024	Lab 12 – Correlation Bonus Lab – Geologic Histories
Sunday 12/08/2024	Lab Quiz 3 – Visualizing Earth and Earth History
Monday 12/09/2024	Examination 5: Mesozoic and Cenozoic Earth