Historical Geology (GEOS 1234)

McCoy College of Science, Mathematics, and Engineering
Spring 2026

General Course Information

- Lecture Meetings: Monday, Wednesday, Friday | 11:00 am – 11:50 am | Bolin Hall 247
- Laboratory Meetings: Labs begin in week 2. Attend only the section you are registered for.
    - Section 11A: Tuesday | 3:00 pm – 4:50 pm | Bolin Hall 119 | Audrey Lane
    - Section 11B: Wednesday | 1:00 pm – 2:50 pm | Bolin Hall 119 | Audrey Lane
    - Section 11C: Thursday | 1:00 pm – 2:50 pm | Bolin Hall 119 | Jacob Heidema
- Course D2L Site: We will only use the main course site for the lecture section, there will be no content in the laboratory section sites.
    - Link to the Historical Geology D2L Site

Instructor Information

- Professor
    - Dr. Steven J. Rosscoe | steven.rosscoe@msutexas.edu | 940.397.4448
      Office Hours: MTWRF 10:00 am – 11:00 am | Bolin Hall 101 A
      Virtual Office Hours: By Appointment | Zoom Office Hours Link
- Laboratory Instructors (responsible for teaching and grading laboratory sections)
    - Audrey Lane | aklane0919@my.msutexas.edu
    - Jacob Heidema | jcheidema1015@my.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).

Instructional Materials

The following materials are required for the successful completion of the course. In designing this course all efforts were made to keep your costs as low as possible. There is no lab manual to purchase and traditional textbooks.

Required Textbooks

These books are available in traditional formats and are also available as audiobooks.

- **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 group podcast project. These books are available in traditional formats and are also available as audiobooks. Do not purchase a book until you know which book your group is choosing.

- **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 Software 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)

This textbook is not required, but much of the detailed information in the lecture portion of this course is covered very well in this text. Should you find yourself struggling to learn the lecture material it would be an excellent resource.

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

Supplemental Readings

These readings are provided as PDFs in D2L, specifically to prepare you as pre-lab readings for some of the laboratory activities you will be completing in this course.

- Rosscoe, Steve J. 2024. Earth Materials.
- Other readings as necessary.

Grading Information

The formal grade for this course is determined by your performance on lecture exams, a podcast project, laboratory activities, and laboratory mini exams. Your grade is calculated by dividing the points you earned during the semester by completing assignments by the total number of points possible in the semester. The letter grade for the course follows the traditional university style.

Assessments Related to the MSU Core Curriculum

As a core curriculum course at Midwestern State University (Life & Physical Sciences – 030N) this course works to develop skills and reports assessments in critical thinking, communication skills (written communication), empirical and quantitative skills (quantitative literacy), and teamwork.

Table 1: Allocation of Points by Assignment Type

The table below shows the total number of points for each major category of assignment that are possible this semester. For more details about the assignments see the section for that assignment in this portion of the syllabus.

Assignments (Quantity)	Points
Lecture Examinations (4/5)	200
Podcast Project (1)	100
Lab Activities (12/13)	240
Laboratory Mini Exams (3)	060
Total Points	600

Table 2: Points, Percentage, and Letter Grade Values

The table on the following page shows the point-value and percentage-value required to reach a particular letter grade in the course. The table reflects the optimal running of the course where there are no missed days or activities. The instructor reserves the right to change the point distributions to reflect such changes. The percentage requirements will remain unchanged throughout the semester. Percentage grades are rounded to the nearest whole percent.

Grade	Points	Percentage
A	540 and up	90% and up
B	480 to 539	80% to 89%
C	420 to 479	70% to 79%
D	360 to 419	60% to 69%
F	Less than 360	59% or less

Lecture Examination Information

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. At the end of the semester the lowest examination grade will be dropped. Your grade is determined by your top four examination grades. Examination due dates can be found in the course due date calendar located on the last page of this syllabus.

- 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.

Podcast Project Information

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.

This project covers and assesses critical thinking, teamwork, and communication attributes of the MSU core curriculum. [AACU Critical Thinking: explanation of issues, influence of context and assumptions, conclusions and related outcomes; AACU Written Communication: context and purpose for writing, content development, genre and disciplinary conventions; AACU Teamwork: facilitates the contributions of team members, individual contributions outside of team meetings, fosters constructive team climate]

- Topic Selection [5 points total] – You will be placed in a group of 4-5 people from the class to work with for your project and choose a topic. Groups will be assigned following the end of the drop/add period. A list of available topics is available in D2L in 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. Rosscoe an e-mail with your group's selection by the topic selection due date. Each topic is limited to three 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. This must be completed by the end of the third week of the semester. [5 points]

- Group Meeting with Professor [15 points total] – The group (all members) must schedule and participate in a meeting with Dr. Rosscoe (either in person or by Zoom). These meetings must be scheduled during the seventh week of the semester.
    - The group must have prepared an outline (typed in MS Word) 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 must provide a rough draft of their script showing progress toward the final podcast While the podcast should be scripted, the performance does not need to follow the script exactly [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].

- 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]

Laboratory Activities

The historical geology course requires the completion of 13 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. The best 12 lab grades of 13 will be used to calculate your final 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.

The lab on geologic histories is used to develop and assess quantitative skills for the MSU core curriculum. The quantitative skills will include ordering strata and geological events using the principles of stratigraphy, determining isotopic concentrations and ratios, and calculating the age

of a sample using the provided half-life. [AACU Quantitative Literacy: calculation, application/analysis, assumptions]

Laboratory Mini Exams

To test your laboratory skills and ability to use the techniques taught throughout the lab you will be three laboratory mini exams. The first mini exam covers the Earth Materials laboratories (Labs 1 to 5). The second covers the Life on the Rocks laboratories (Labs 6 to 8). The third and final mini exam covers the Visualizing Earth and Earth History laboratories (Labs 9 to 13). You will need to study throughout the semester to prepare for these laboratory mini examinations.

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

Extra Credit

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 Policy

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 Classroom 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 Policy

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 Policy

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 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.

- 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 Policy

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 allows the instructor to 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 as soon as possible. We will work together to make sure that you can succeed, just make sure it is Doctor-documented. I can't do much to help, if I don't know until the day before the semester ends.

Electronic Devices Policy

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. If you're in the back of the room, ear buds in, and smiling as you watch something on your device, I do notice. Don't be that person.

Course Grades and Grade Bumps Policy

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

- Martin Luther King Jr. Holiday, No Classes: January 20th, 2026
- First Day of Classes: January 21st, 2026
- Change of Schedule and Late Registration: January 21-24th, 2026
- Last Day to File for May Graduation: February 17th, 2026
- Spring Break Holiday, No Classes: March 9th-13th, 2026
- Holiday Break, No Classes: April 3rd, 2026
- Last Day for "W" (Drops after this date receive "F"): April 30th, 2026
- Last Day of Classes: May 8th, 2026
- Final Examinations: May 9th to 14th, 2026
- Commencement: May 15th, 2026 (Graduate), May 16th, 2026 (Undergraduate)

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 and 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

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	Jan 19 to Jan 23	**No Class** *MLK Jr. Holiday*	Introduction *No Readings*	Science *No Readings*
2	Jan 26 to Jan 30	Historical Geology *No Readings*	Deep Time *No Readings*	Relative Age *No Readings*
3	Feb 02 to Feb 06	Relative/Absolute Age *No Readings*	Absolute Age *No Readings*	Geologic Timescale *No Readings*
4	Feb 09 to Feb 13	Continental Drift *No Readings*	Seafloor Spreading *No Readings*	Plate Tectonics *No Readings*
5	Feb 16 to Feb 20	Plate Boundaries *No Readings*	Plate Boundaries *No Readings*	Hot Spots *No Readings*
6	Feb 23 to Feb 27	Selection *No Readings*	Speciation *No Readings*	Evolution *No Readings*
7	Mar 02 to Mar 06	The Big Bang *Hazen Ch. 1*	Birth of the Earth *Hazen Ch. 1*	A New Moon *Hazen Ch. 2*
SB	Mar 09 to Mar 13	**No Class** *Spring Break Holiday*	**No Class** *Spring Break Holiday*	**No Class** *Spring Break Holiday*
8	Mar 16 to Mar 20	Crustal Evolution *Hazen Ch. 3, 4*	Water/Atmosphere *Hazen Ch. 4*	Origin of Life *Hazen Ch. 6*
9	Mar 23 to Mar 27	Oxidation (Video) *Hazen Ch. 7*	Supercontinents (Video) *Hazen Ch. 8, 9*	A Complicating Life *Hazen Ch. 10*
10	Mar 30 to Apr 03	Paleozoic Intro *No Readings*	Mobile Belts *No Readings*	**No Class** *Holiday Break*
11	Apr 06 to Apr 10	Paleozoic CFCs *No Readings*	Appalachians *No Readings*	Pangaea *No Readings*
12	Apr 13 to Apr 17	Pangaean Origins *No Readings*	Diversifying Life *Brannen Ch. 1*	Mass Extinctions *Brannen Ch. 2, 3*
13	Apr 20 to Apr 24	Mesozoic-Cenozoic Intro *No Readings*	Cordilleran Orogeny *No Readings*	Evolving Continent *No Readings*
14	Apr 27 to May 01	Diversification *Hazen Ch. 10*	Diversification *Hazen Ch. 10*	Extinction *Brannen Ch. 5-7*
15	May 04 to May 08	Extinction *Brannen Ch. 5-7*	The Future *Hazen Ch. 11*	Wrap Up *No Readings*

Additional Information

- If we do not finish the content for a three-week unit within the class time, the remaining lecture content will be released as video lectures in D2L.
- The final exam block is Monday, May 11, 2026, from 10:30 am to 12:30 pm. The exam is online, in person attendance is not required. I will be available in my office at that time.

Laboratory Activity Schedule

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 Monday following the lab meeting. ***NOTE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.**

Week	Dates	Lab Activity
1	Jan 20, 21, 22	No Lab Meetings *First Week of Classes*
2	Jan 27, 28, 29	Lab 1 – The Rock Forming Minerals *Earth Materials Ch. 1, Pre-Lab Vid.*
3	Feb 03, 04, 05	Lab 2 – The Igneous Rocks *Earth Materials Ch. 2, Pre-Lab Vid.*
4	Feb 10, 11, 12	Lab 3 – The Clastic Sed. Rocks *Earth Materials Ch. 3, Pre-Lab Vid.*
5	Feb 17, 18, 19	Lab 4 – The Non-Clastic Sed. Rocks *Earth Materials Ch. 4, Pre-Lab Vid.*
6	Feb 24, 25, 26	Lab 5 – The Metamorphic Rocks *Earth Materials Ch. 5, Pre-Lab Vid.*
7	Mar 03, 04, 05	Lab 6 – Single-Cell & Colonial Life *Pre-Lab Video*
SB	Mar 10, 11, 12	No Lab Meetings *Spring Break Week*
8	Mar 17, 18, 19	Lab 7 – Common Invertebrates *Pre-Lab Video*
9	Mar 24, 25, 26	Lab 8 – Other Fossil Life *No Pre-Lab Materials*
10	Mar 31, Apr 01, 02	Lab 9 – Topographic Maps *PDF Reading, Minecraft Pre-Lab*
11	Apr 07, 08, 09	Lab 10 – Geologic Maps *PDF Reading, Minecraft Pre-Lab*
12	Apr 14, 15, 16	Lab 11 – Measured Sections *PDF Reading, Minecraft Pre-Lab*
13	Apr 21, 22, 23	Lab 12 – Correlation *PDF Reading, Minecraft Pre-Lab*
14	Apr 28, 29, 30	Lab 13 – Geologic Histories *PDF Reading, Minecraft Pre-Lab*
15	May 05, 06, 08	No Lab Meetings *Last Week of Classes*

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 during weekday availability hours). ***NOTE: Changes in the course syllabus, procedures, assignments, and schedule may be made at the discretion of the instructor.**

Due Date	Assignment
Friday, January 30th, 2026	Introduce Yourself Extra Credit
Monday, February 2nd, 2026	Lab 1 – The Rock Forming Minerals
Friday, February 6th, 2026	Podcast Topic Selection
Monday, February 9th, 2026	Lab 2 – The Igneous Rocks
Sunday, February 15th, 2026	Examination 1: Time and Geology
Monday, February 16th, 2026	Lab 3 – The Clastic Sedimentary Rocks
Monday, February 23rd, 2026	Lab 4 – The Non-Clastic Sedimentary Rocks
Mon-Fri, March 2nd-6th, 2026	Podcast Project Group Meetings with Instructor
Monday, March 2nd, 2026	Lab 5 – The Metamorphic Rocks
Friday, March 5th, 2026	Lab Mini Exam 1 – Earth Materials
Sunday, March 15th, 2026	Examination 2: Evolving Earth and Life
Monday, March 16th, 2026	Lab 6 – Simple and Colonial Life
Monday, March 23rd, 2026	Lab 7 – Common Invertebrates
Monday, March 30th, 2026	Lab 8 – Other Fossil Life
Friday, April 3rd, 2026	Lab Mini Exam 2 – Life on the Rocks
Sunday, April 5th, 2026	Examination 3: Precambrian Earth
Monday, April 6th, 2026	Lab 9 – Topographic Maps
Monday, April 13th, 2026	Lab 10 – Geologic Maps
Friday, April 17th, 2026	Podcast Audio File
Monday, April 20th, 2026	Lab 11 – Measured Sections
Sunday, April 26th, 2026	Examination 4: Paleozoic Earth
Monday, April 27th, 2026	Lab 12 – Correlation
Monday, May 4th, 2026	Lab 13 – Geologic Histories Lab 13 – Bonus Activity
Friday, May 8th, 2026	Lab Mini Exam 3 – Visualizing Earth and Earth History
Monday, May 11th, 2026	Examination 5: Mesozoic and Cenozoic Earth

Official End Date of the Course

The last day of this course is Friday, May 8th, 2026. Any lab or project work that is not submitted by 11:59 pm on May 8th, 2026 will receive a grade of zero. No lab or project work will be accepted after May 8th, 2026 at 11:59 pm. Examination 5 will be due on Monday, May 11th, 2026, at 11:59 pm.