



## **Course Syllabus: Historical Geology**

McCoy College of Science, Mathematics, and Engineering

Lecture - GEOS 1234 Section 101

Fall 2023

MWF 12 – 12:50 pm | Bolin Hall 127

[Course D2L Site](#)

### **Laboratory Sections**

Attend only the section you are registered for:

GEOS 1234 Section 11A: T 1 – 2:50 pm | Bolin Hall 117

GEOS 1234 Section 11B: T 3 – 4:50 pm | Bolin Hall 117

GEOS 1234 Section 11C: W 1 – 2:50 pm | Bolin Hall 117

### **Contact Information**

Instructor: Dr. Steven J. Rosscoe

Office: Bolin Hall 131a / Pierce Hall 204 (after Nov. 1)

Office hours: MWF 10 – 11 am | T 9 am – 11 am | By Appointment

Office phone: (940) 397-4448

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

#### Selected Readings Provided for Podcast Project in D2L as PDFs:

Harris, A. G., Tuttle, E., and Tuttle S. D. 2004. *Geology of National Parks*, 6<sup>th</sup> Edition, p. 882

#### Supplemental Lecture Readings Provided in D2L as PDFs:

Marshak, Stephen. 2022. Chapter 2: The Way the Earth Works: Plate Tectonics. *In* *Essentials of Geology*, 7<sup>th</sup> Edition, pp. 44-79.

Prothero, Donald R. and Dott, Robert H. 2010. Chapter 3: Evolution. *In* *Evolution of the Earth*, 8<sup>th</sup> Edition, pp. 41-67

Wicander, R. and Monroe, James S. 2016. Chapter 4: Geologic Time: Concepts and Principles. *In* *Historical Geology: Evolution of Earth & Life Through Time*, 8<sup>th</sup> Edition, pp. 65-83.

Wicander R. and Monroe, James S. 2016. Mesozoic to Cenozoic Time (M-C) – Selections from Chapters 14-17 of *Historical Geology: Evolution of Earth & Life Through Time*, 8<sup>th</sup> Edition.

Wicander R. and Monroe, James S. 2016. Paleozoic Time – Selections from Chapters 10-13 of *Historical Geology: Evolution of Earth & Life Through Time*, 8<sup>th</sup> Edition.

#### Supplemental Laboratory Readings Provided in D2L as PDFs:

Rosscoe, Steven J. 2022. *Earth Materials*.

Rosscoe, Steven J. 2023. *Interpreting Earth History* (if completed).

## Grading

The formal grade for this course is determined by your performance on lecture exams, online discussions, laboratory activities, and laboratory examinations

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

<b>Assignments (Quantity)</b>	<b>Points</b>
Lecture Examinations (4/5)	200
Podcast Project (1)	100
Lab Activities (10/11)	200
Laboratory Exams (2)	100
Total Points	600

Table 2: Total points for final grade.

<b>Grade</b>	<b>Points</b>
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 given at the end of each our major course units (each unit is approximately 3 weeks in length). 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 50 minutes to complete each examination. Exams will close and auto submit after 50 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 if you have properly studied for the examination).

Exams 1 through 4 will be available for a full week, you can take them when you are best prepared. Exam 5 must be taken on the day of your final exam block. During the final exam block, I will be available in my office if you have any

questions about the course or the final exam. You do not need to come to class during the examination block.

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

<b>Examination</b>	<b>Unlock Date/Time</b>	<b>Due Date/Time</b>
Exam 1: Time and Geology	Fri 9/15 6:00 pm	Fri 9/22 11:59 pm
Exam 2: Evolving Earth and Life	Fri 10/06 6:00 pm	Fri 10/13 11:59 pm
Exam 3: Precambrian Earth	Fri 10/27 6:00 pm	Fri 11/03 11:59 pm
Exam 4: Paleozoic Earth	Fri 11/17 6:00 pm	Fri 12/01 11:59 pm
Exam 5: Mesozoic-Cenozoic Earth	Fri 12/08 12:01 am	Wed 12/13 11:59 pm

### Podcast Project (Online/Group)

In a historical geology class, we spend a lot of time learning how the Earth forms, the processes acting on it, and how the landscape we live on today is the result. In the United States we have an abundance of National Parks that showcase the true beauty of the landscape. In this project, you will work in teams of four to research the history and geology of one of the National Parks in the United States. Your group will be provided with the corresponding chapter of *Geology of National Parks* to help your research. You will then create a 5-minute podcast audio file in which you creatively present the material to an audience of your peers. There are three checkpoints/deadlines for the project:

- Group selects podcast topic [5 points total] – a list of available topics is available in D2L under the Podcast Project module. Discuss with your group and select the park your group would like to do, during Week 3. Send Dr. Rosscoe an e-mail with your group’s selection. 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] – during Week 6 each group must schedule a sit-down meeting with Dr. Rosscoe in his office. A schedule with available 10-minute time slots will be posted for you to choose from.
  - 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 research for the 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 start of Week 13 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: Park Basics – This section introduces the park, where it is located, its popularity, and its claims to fame [10 points as a group].
  - Component 2: History of the Park – This section discusses how the park got its start, the processes it went through to become a park, and how the park has changed from when it first opened to today [20 points as a group].
  - Component 3: Geology of the Park – This section discusses the unique landscape of the park and the formation of that landscape by providing a geologic history of the park and surrounding region [20 points as a group].
  - Component 4: Visiting the Park – This section explains what visitors should expect and how to plan a trip to the park [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) [5 points as a group].
  - Performance Quality – each speaker is practiced and understandable and does not sound as if reading from a script [5 points for individuals].
  - Podcast Length – must be five minutes in length (extra credit commercial doesn't count toward time). [5 points as a group]
  - Extra Credit Commercial – each group has the option to make a fun commercial related to the park 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	F 09/15	E-mail
Group Meets with Professor (Week Ending)	F 10/06	Office Meeting
Podcast Submitted	M 11/20	File Upload

#### Lab Activities (In Lab)

The laboratory portion of the course **requires** the completion of 11 laboratory activities. If you do not attend in person and complete the lab activities, the maximum grade you can get in the course is a D. Each lab is worth 20 points. The 10 best lab grades will be the grades used to calculate your course grade (essentially dropping 1 lab). Due dates for each lab can be found on the course due dates table (last page of this document).

Most laboratory periods will begin with an introduction of important materials and procedures (usually about a half hour) with a laboratory activity to be completed in the remainder of the lab period. There will typically be questions to be answered after you complete the activity. The lab worksheet and questions are due at the start of the next laboratory period, turned into the TA. Labs will be graded and returned by the TA within two weeks.

Labs take time to set up and require the presence of a TA. Making up labs is not done with ease and is only allowed under the following conditions.

- If you have a scheduling conflict, you may go to one of the other lab sections to complete the lab activity, this does not require a legal, paper-documented excuse. But, you must:
  - E-mail the TA(s) of both the section you are registered in and the one you will attend in advance.
  - The section you are going to must be doing the same lab activity as the section you are missing.
  - You will turn in the lab activity to your section's TA at the normal deadline.
- If you have legal, paper-documented excuse due to illness or family emergency you may schedule a make-up lab with your TA.
  - Make-up labs must be scheduled with your TA.
  - The lab must be completed within 10 days of the missed lab.
- **If you miss a lab without prior notice and you do not have a legal paper-documented excuse, you will not be allowed to make-up the missed lab.**

### Laboratory Exams (In Lab)

To test your laboratory skills and ability to use the techniques taught throughout the lab you will be given two laboratory exams. The first exam covers the Earth Materials laboratories (Labs 1 to 6). The second exam covers the Interpreting Earth History laboratories (Labs 8 to 11). You will need to study throughout the semester to prepare for these laboratory examinations.

- Room 117 is available most hours when the building is open, when other labs are not being taught in it. You have access to mineral and rock specimens to study and review.
- A great way to study is to review your graded labs by looking at similar specimens to those you were given in the lab activity.

The Earth Materials Lab Exam will focus on the identification and description of rock and mineral specimens that are key to understanding and interpreting the history of the Earth. The exam will be specimen based. A series of specimens will be supplied with a set of questions that must be answered for each specimen. There will be a period of time where all students rotate through the specimens with a designated amount of time set for each specimen. Following the specimen rotation, you will have the remainder of the laboratory period to go back to any specimens you would like for more time.

The Interpreting Earth History Exam will focus on the development of Earth history data and the interpretation of Earth history from that data. You will be provided an examination packet with rock specimens and evaluate and interpret these to reveal the geologic history you have been provided. You will have the entire laboratory period to complete this examination.

### 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

Most assignments in this course have at least a week of lead time before their due dates. It is your responsibility to complete the assignment before the due date. If you have something that will prevent you from completing the assignment on the day it is due, get it done earlier. **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.

### **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

Last day for term schedule changes: August 31, 2023

Deadline to file for December graduation: September 25, 2023

Deadline to file for May graduation: October 2, 2023

Last Day to drop with a grade of "W:" October 30, 2023

#### 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) exists 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](#).

## Course Schedule

Notice: Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor. All lab activities are due by the start of your lab session the week following the in-class activity. All lab exams are due at the end of the lab period of the exam.

<b>Week</b>	<b>Monday (Lec.)</b>	<b>Wednesday (Lec.)</b>	<b>Friday (Lec.)</b>
<b>Lab Meetings</b>			
<b><u>Week 1</u></b> <b>8/28</b> <b>to</b> <b>9/1</b>	Introduction <i>No Reading</i>	Science <i>No Reading</i>	Historical Geology <i>No Reading</i>
<b>No Laboratory Meeting</b> <b>First Week of Classes</b>			
<b><u>Week 2</u></b> <b>9/4</b> <b>to</b> <b>9/8</b>	<b>No Class</b> <b>Labor Day</b>	Deep Time <i>WM Ch. 4 (PDF)</i>	Relative Age <i>WM Ch. 4 (PDF)</i>
<u>Lab 01</u> – The Rock Forming Minerals <i>Earth Materials: Chapter 1 (PDF)</i>			
<b><u>Week 3</u></b> <b>9/11</b> <b>to</b> <b>9/15</b>	Relative Age <i>WM Ch. 4 (PDF)</i>	Absolute Age <i>WM Ch. 4 (PDF)</i>	Geologic Time Scale <i>WM Ch. 4 (PDF)</i>
<u>Lab 02</u> – Igneous Rocks <i>Earth Materials: Chapter 2 (PDF)</i>			
<b><u>Week 4</u></b> <b>9/18</b> <b>to</b> <b>9/22</b>	Continental Drift <i>M Ch. 2 (PDF)</i>	Seafloor Spreading <i>M Ch. 2 (PDF)</i>	Plate Tectonics <i>M Ch. 2 (PDF)</i>
<u>Lab 03</u> – Clastic Sedimentary Rocks <i>Earth Materials: Chapter 3 (PDF)</i>			
<b><u>Week 5</u></b> <b>9/25</b> <b>to</b> <b>9/29</b>	Plate Boundaries <i>M Ch. 2 (PDF)</i>	Plate Boundaries <i>M Ch. 2 (PDF)</i>	Hot Spots <i>M Ch. 2 (PDF)</i>
<u>Lab 04</u> – Other Sedimentary Rocks <i>Earth Materials: Chapter 4 (PDF)</i>			
<b><u>Week 6</u></b> <b>10/2</b> <b>to</b> <b>10/6</b>	Selection <i>PD Ch. 3 (PDF)</i>	Speciation <i>PD Ch. 3 (PDF)</i>	Evolution <i>PD Ch. 3 (PDF)</i>
<u>Lab 05</u> – Major Invertebrate Fossil Groups <i>Earth Materials: Chapter 5 (PDF)</i>			
<b><u>Week 7</u></b> <b>10/9</b> <b>to</b> <b>10/13</b>	The Big Bang <i>Hazen Ch. 1</i>	Birth of Earth <i>Hazen Ch. 1</i>	A New Moon <i>Hazen Ch. 2</i>
<u>Lab 06</u> – Metamorphic Rocks <i>Earth Materials: Chapter 6 (PDF)</i>			
<b><u>Week 8</u></b> <b>10/16</b> <b>to</b> <b>10/20</b>	Crustal Evolution * <i>Hazen Ch. 3, 5</i>	Water/Atmosphere * <i>Hazen Ch. 4</i>	Origin of Life <i>Hazen Ch. 6</i>
<u>Lab 07</u> – Earth Materials Review <i>Review Earth Materials Readings</i>			

\*Note: Dr. Rosscoe will be attending and presenting at GSA Connects in Pittsburgh, PA during week 8. Lectures on M/W will be provided as video lecture in D2L. Labs will operate normally with teaching assistants.

## Course Schedule Continued

Notice: Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor. All lab activities are due by the start of your lab session the week following the in-class activity. All lab exams are due at the end of the lab period of the exam.

<b>Week</b>	<b>Monday (Lec.)</b>	<b>Wednesday (Lec.)</b>	<b>Friday (Lec.)</b>
	<b>Lab Meetings</b>		
<b>Week 9</b> <b>10/23</b> to <b>10/27</b>	Oxidation <i>Hazen Ch. 7</i>	Supercontinents <i>Hazen Ch. 8, 9</i>	A Complicating Life <i>Hazen Ch. 10</i>
	<b>Laboratory Midterm – Earth Materials</b>		
<b>Week 10</b> <b>10/30</b> to <b>11/3</b>	Paleozoic Intro <i>WM Paleozoic (PDF)</i>	Mobile Belts <i>WM Paleozoic (PDF)</i>	Paleozoic CFSs <i>WM Paleozoic (PDF)</i>
	<u>Lab 08 – Stratigraphic Sections</u> <i>Interpreting Earth History: Chapter 1 (PDF)</i>		
<b>Week 11</b> <b>11/6</b> to <b>11/10</b>	Appalachians <i>WM Paleozoic (PDF)</i>	Pangaea <i>Hazen Ch. 4, 5, 6</i>	Pangaea's Children <i>WM Paleozoic (PDF)</i>
	<u>Lab 09 – Correlation</u> <i>Interpreting Earth History: Chapter 2 (PDF)</i>		
<b>Week 12</b> <b>11/13</b> to <b>11/17</b>	Diversifying Life <i>Brannen Ch. 1</i> <i>Hazen Ch. 10</i>	Mass Extinctions <i>Brannen Ch. 2, 3</i>	Mass Extinctions <i>Brannen Ch. 4</i>
	<u>Lab 10 – Depositional Environments</u> <i>Interpreting Earth History: Chapter 3 (PDF)</i>		
<b>Week 13</b> <b>11/20</b> to <b>11/24</b>	Ceno-Meso Intro <i>WM M-C (PDF)</i>	<b>No Class</b> <b>Thanksgiving</b>	<b>No Class</b> <b>Thanksgiving</b>
	<b>No Laboratory Meeting</b> <b>Thanksgiving Holiday</b>		
<b>Week 14</b> <b>11/27</b> to <b>12/1</b>	Cordilleran Orogeny <i>WM M-C (PDF)</i>	Evolving Continent <i>WM M-C (PDF)</i>	Evolving Continent <i>WM M-C (PDF)</i>
	<u>Lab 11 – Geologic Histories</u> <i>Interpreting Earth History: Chapter 4 (PDF)</i>		
<b>Week 15</b> <b>12/4</b> to <b>12/8</b>	Diversification <i>Hazen Ch. 10</i> <i>P Ch. 5, 6 (PDF)</i>	Extinction <i>Brannen Ch. 5, 6, 7</i>	The Future <i>Hazen Ch. 11</i> <i>Brannen Ch. 8, 9</i>
	<b>Lab Final – Reading Earth History</b>		
<b>Final</b> <b>12/13</b>	Final Exam Block: Wed. Dec. 13, 5:30 pm – 5:30 pm		

## Course Due Dates in Chronological Order

The following table lists the due dates of each assignment in the course. Lab due dates correspond to the day of your lab (ex: if you have a Tuesday lab, use the Tuesday due date).

<b>Due Date (Time)</b>	<b>Assignment</b>
F 09/08 (11:59 pm)	Extra Credit Post
T 09/12   W 09/13	Signed Lab Agreements
	Lab 1: The Rock Forming Minerals
F 09/15 (11:59 pm)	Podcast Topic Choice
T 09/19   W 09/20	Lab 2: Igneous Rocks
F 09/22 (11:59 pm)	Examination 1: Time and Geology
T 09/26   W 09/27	Lab 3: Clastic Sedimentary Rocks
T 10/03   W 10/04	Lab 4: Other Sedimentary Rocks
F 10/06 (4:00 pm)	Podcast Group Meetings with Professor Week Ends
T 10/10   W 10/11	Lab 5: Invertebrate Fossil Groups
F 10/13 (11:59 pm)	Examination 2: Evolving Earth and Life
T 10/17   W 10/18	Lab 6: Metamorphic Rocks
	Lab 7: Earth Materials Review Survey
T 10/24   W 10/25	Laboratory Midterm Examination
F 11/03 (11:59 pm)	Examination 3: Precambrian Earth
T 11/07   W 11/08	Lab 8: Stratigraphic Sections
T 11/14   W 11/15	Lab 9: Correlation
M 11/20 (11:59 pm)	Podcasts Submitted
T 11/28   W 11/29	Lab 10: Depositional Environments
F 12/01 (11:59 pm)	Examination 4: Paleozoic Earth
T 12/05   W 12/06	Lab 11: Geologic Histories
	Laboratory Final Examination
W 12/13 (11:59 pm)	Examination 5: Mesozoic-Cenozoic Earth