

- Recognize and articulate the relationship between the natural sciences and society, and how science can be applied to societal challenges
- Recognize the scope and limits of science

This course works in coordination with GEOL 104, which is a separate 1-credit Laboratory course. If you need to fulfill a Natural Science with Lab requirement, you must be enrolled in GEOL 104 in addition to GEOL 102. Please consult with your Academic Advisor if you are unsure about the Laboratory course requirement for your major.

Course Book and other Materials

Lecture Textbook

The Earth Through Time, 11th Edition, 2017, H. L. Levin and D. T. King, Jr., John Wiley & Sons.

Available in print and electronic formats. See GMU Bookstore for purchasing and renting options. Ancillary materials are also available from the publisher's web site at no additional cost (<https://www.wiley.com/en-us>). These extra materials are not required but may be helpful.

Scantron forms

Students who do not wish to take online exams will have the option of taking the exams in class using paper exams and Scantron forms. To take paper exams you must supply your own Scantron 882-E forms (i.e., the Scantron forms that have 50 question spaces on each side and five response choices A-E). The necessary Scantron forms are available at the GMU Bookstore and from many other sources.

Required Coursework & Grading Weights

Weight	Coursework
25%	Online Quizzes
25%	Exam I
25%	Exam II
25%	Exam III (Final Exam)

The required coursework consists of weekly online quizzes and three exams. The weights of the graded items are as listed in the table at left. For the online quizzes, the indicated weighting is for the combined total of all quizzes.

Quizzes will be released online on most weeks that class meets (see Course Schedule). Each quiz will cover the most recent topics discussed since the last quiz, and will consist of no more than ten questions. The quizzes will be time-limited and scored for accuracy.

Exams will not be cumulative; they will only cover the material discussed in the preceding third of the class (see Course Schedule). The exams will be time-limited and will be scored for accuracy.

In addition to the required coursework, extra credit points may be earned by answering questions and participating in exercises during class. Participation in these exercises is not required. There is no other opportunity for extra credit.

Grade Scale

Grade	Coursework %
A	≥ 90%
B	80 – 89%
C	65 – 79%
D	50 – 64%
F	< 50%

Letter grades will be determined by the weighted percentage of total points possible. The standard grade scale ranges are as indicated in the table at left. The grade scale is subject to change, but if any change is made, it will be favorable to students (i.e., if the scale is changed, the cutoffs for each grade would be at lower percentages than indicated, not higher).

+/- qualifiers will be used for grades near the letter grade limits

Tentative Course Schedule

Week	Date	Topic	Textbook Chapter
1 *	01/16	Course Information & Introduction to Historical Geology	1
	01/18	Time and Geology	2, 3
2 *	01/23	Rocks and Minerals	4
	01/25	Sedimentary Archives	5
3 *	01/30	Fossils and Life on Earth (I)	6
	02/01	Fossils and Life on Earth (II)	
4 *	02/06	Earth's Interior and Plate Tectonics	7
	02/08	Review 1	
5	02/13	<i>Exam I (10:30 – 11:45 am)</i>	
	02/15	Formation of the Solar System (Earth's Earliest History)	8
6 *	02/20	Early Earth: Hadean and Archean Eons	
	02/22	Proterozoic Eon	9
7 *	02/27	Paleozoic Era: Events (Early Paleozoic)	10
	02/29	Paleozoic Era: Events (Late Paleozoic)	11
8	03/05	<i>Spring Break (No Class)</i>	
	03/07	<i>Spring Break (No Class)</i>	
9 *	03/12	Paleozoic Era: Life (I)	12
	03/14	Paleozoic Era: Life (II)	
10	03/19	Review 2	
	03/21	<i>Exam II (10:30 – 11:45 am)</i>	
11 *	03/26	Mesozoic Era: Events (I)	13
	03/28	Mesozoic Era: Events (II) & Life(I)	14
12 *	04/02	Mesozoic Era: Life (II)	
	04/04	Cenozoic Era: Events	15
13 *	04/09	Cenozoic Era: Life (I)	16
	04/11	Cenozoic Era: Life (II)	
14 *	04/16	Quaternary Period: Events (I)	17
	04/18	Quaternary Period: Events (II) & Life	
15	04/23	Planetary Geology	
	04/25	Review 3	
16	05/07	<i>Exam III (Final Exam) (10:30 – 11:45 am)</i>	

* Online quiz

Note: Course content and schedule may be modified by the instructor as the semester progresses.

Key Add/Drop/Withdrawal Dates

Jan 23 Last day to add classes

Jan 30 1st drop deadline (full tuition refund, no record on transcript)

Feb 06 2nd drop deadline (50% tuition refund, no record on transcript)

Feb 20 Last day for unrestricted Self-Withdrawal (no tuition refund, W on transcript)

Mar 25 Last day for Selective Withdrawal (no tuition refund, W on transcript)

Course Policies

Electronic Devices: The use of electronic devices (computer, tablet, phone and the like) is permitted during class. While in class, your phone ringer and any other audible alerts on your devices must be off. Be respectful of your peers and instructor and do not use your electronic devices to engage in activities that are unrelated to the class while class is in session. The instructor reserves the right to prohibit the use of electronic devices by any student whose use of a device is unrelated and/or disruptive to the class.

Except for the device used to take the online exams themselves, no other use of electronic devices is allowed during exams. You may not use any device to access notes or any other information during exams.

Earbuds and headphones may not be worn at any time during class or during exams without an approved accommodation or prior approval from the instructor.

All standard University policies apply to the use of University computers and University computer systems for this course. Please see the GMU policies website for a summary of the University computer policies (<https://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).

Course Materials and Presentations: All course materials and presentations (e.g., lecture outlines, lecture slides, exams, demonstrations) are for course use only. ***These materials may not be shared, posted or in any way redistributed outside of the course, either electronically or as hardcopy.*** Sharing or redistribution of these materials is a violation of the GMU Honor Code.

Recording of Lectures: Lectures and demonstrations may *not* be electronically recorded in any format without prior permission of the instructor and completion of a recording agreement form. Acceptable agreement forms are the Disability Services Recording (Audio/Video) and Copies of Class Presentations Acknowledgement form, or a similar form provided by the instructor. In all cases, the opinions, questions and comments of other class members may not be played back at any point to anyone outside of the class.

Attendance: While attendance is not strictly required, students are expected to attend class regularly.

Quizzes: Quizzes will be taken online through Blackboard. Quizzes will be made available on Blackboard approximately weekly and are to be completed outside of class. Unless otherwise noted, you will have 6 days to complete each quiz once it is made available online.

Quizzes are time-limited. You may start the quizzes at any time during the window that each quiz is available. Once started, all quizzes must be completed within 60 minutes of when the quiz is started.

Quizzes are open book and open notes; you may use notes, books or any other information for the quizzes.

Exams: Exams I and II will be taken during the class meeting time on the dates listed in the course schedule, and they will start at the class starting time. Exam III (the Final Exam) will be taken during Final Exam week and start at the time and date listed on the course schedule. If GMU is closed on the scheduled date of the Final Exam, the make-up date and time for the Final Exam will be announced through the class Blackboard site and GMU e-mail.

You have the option of taking exams online or on paper. Online exams will require use of the Respondus LockDown Browser and Monitor. To take an exam on paper, you will need an appropriate Scantron form, and you must notify the instructor prior to the exam date so that a paper exam will be available for you.

Exams are time-limited. All exams must be completed within 75 minutes of the scheduled exam start time.

All exams are closed book and closed notes. Use of these materials, or any other source of information, is prohibited during all exams.

Extra Credit Opportunities: In-class questions and/or exercises will be presented during most (not all) class meetings. Students can earn extra credit points by answering the questions and participating in the exercises. These questions and exercises will be scored for participation only, not accuracy. You must be

in class and complete each question or exercise at the time it is presented to earn the associated points. Any extra credit points earned will be added to your corresponding exam score up to the maximum points available for that exam. For example, if you scored 95 on an exam that was worth 100 points and have earned 6 extra credit points for that portion of the course, your adjusted exam score would be 100.

The maximum number of extra credit points that may be earned during any portion of the course is 8.

All extra credit point totals will be reset to zero after each exam.

Participation in these activities is not required. Not participating will not result in loss of points. You may still earn full credit for the course through the quizzes and exams.

Missed Coursework: Reasonable accommodations will be made for missed exams and quizzes due to sickness, religious observance and other unavoidable schedule conflicts if the instructor is notified prior to the date the exam or quiz is given. Without prior notification, late exams are subject to a 10% reduction. Unusual situations that prevent advance notice to the instructor will be handled on a case-by-case basis. In any event, exams and quizzes that are not made up or remain unexcused one week after the scheduled exam or quiz date are subject to a grade of zero.

Collaboration: Students are encouraged to study together and discuss with each other the information and concepts covered in the lectures and course readings. Collaboration is permitted for quizzes so long as all students in the collaboration fully participate and submit their own responses. Simple division of labor (i.e., dividing quiz questions within the group) is not consistent with this policy and is not permitted.

Collaboration of any sort is not permitted during exams.

Grade Postings on Blackboard: All course scores will be posted on Blackboard unless otherwise requested.

Unscheduled University Closure: In the event of an unscheduled University closure or access limitation due to weather or other reasons, check Blackboard and your GMU e-mail for any class announcements. If class cannot meet because of the closure or access limitations, supplementary activities may be assigned.

Extended Emergency Adaptation: All classes are scheduled to be conducted in person. If an extended emergency situation prevents in-person classes, classes may be shifted to a synchronous online mode (i.e., live online) and conducted through Blackboard. You will be told if classes are being shifted to online mode and given instructions on how to access the online system.

University Policies

General University Policies: The University Catalog is the central resource for GMU policies affecting student, faculty and staff conduct in university academic affairs. Please see the catalog (<https://catalog.gmu.edu>) or the University Policy web site (<https://universitypolicy.gmu.edu>) for information on academic and non-academic policies not explicitly specified in the syllabus.

Academic Integrity: GMU is an Honor Code university. The Honor Code establishes the principles of academic integrity at GMU and explicitly defines cheating, plagiarism, stealing and lying in the academic context. See the Office for Academic Integrity (<https://oai.gmu.edu>) for a full description of the code and the honor committee process.

Academic integrity is taken seriously and violations are treated gravely. Three fundamental principles to follow at all times are: (1) collaboration on coursework may or may not be permitted (see policies for specific courses), but either way all work submitted must be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules for collaboration on a particular assignment, ask for clarification.

Another element of academic integrity is the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives and traditions.

Electronic Communications: The instructor will only use the GMU e-mail or Blackboard systems for electronic communications with students. All student electronic communications to the instructor should be sent through your GMU e-mail account or Blackboard. Please do not use personal e-mail accounts. For more information about student e-mail accounts, see the GMU mail website (<https://mail.gmu.edu>).

Disability Accommodations: All academic accommodations for classes at GMU must be arranged through Disability Services. Disability Services at George Mason University is committed to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities. Under the administration of University Life, Disability Services implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students can begin the registration process with Disability Services at any time during their enrollment at GMU.

If you are seeking accommodations, please visit <https://ds.gmu.edu> for detailed information about the Disability Services registration process. Disability Services may also be contacted directly at ods@gmu.edu and 703-993-2474. Disability Services offices are located in Student Union Building I (SUB I), Suite 2500.

Diversity: Through its curriculum, programs, policies, procedures, services and resources, GMU strives to maintain a quality environment for work, study and personal growth. An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals.

Diversity is broadly defined to include such characteristics as, but not limited to, race, color, ethnicity, national origin, religion, age, disability, gender identity and expression, pregnancy status, sex and sexual orientation. Diversity also entails different viewpoints, philosophies and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

Students, instructors and staff are all expected to uphold GMU's commitment to equitable access and meaningful inclusiveness for all within the GMU community.

Sexual Misconduct and Interpersonal Violence: GMU is committed to providing a safe learning, living and working environment. Your experience at Mason is meant to be vibrant and dynamic, and one that includes ample opportunities for exploration of self, identity and independence. Sexual misconduct and incidents of interpersonal violence deeply interrupt that experience, and GMU is committed to maintaining a campus that is free of such incidents.

GMU encourages individuals who have been sexually harassed, assaulted or subjected to sexual misconduct to seek assistance and support. Confidential resources that are available on campus include: University Title IX Coordinator, Counseling and Psychological Services (CAPS), Student Support and Advocacy Center (SSAC) and Student Health Services (SHS). Please note that most all other members of the University community are not considered confidential resources and are required to report incidents of sexual misconduct or other prohibited conduct to the University Title IX Coordinator.

Title IX

Title IX is a federal civil rights law that was passed as part of the Education Amendments of 1972. It prohibits discrimination on the basis of sex under any education program or activity receiving federal funding. GMU receives federal funds in many forms and so is required to comply with Title IX.

Sexual assault and sexual harassment are forms of sex discrimination prohibited by Title IX. Other issues that are investigated under Title IX include stalking, intimate partner violence, gender-based harassment, sexual exploitation, complicity in the commission of any act prohibited by this policy, and retaliation for good faith reporting of any of these forms of conduct or participation in any investigation or proceeding.

For more information see <https://diversity.gmu.edu/title-ix/what-title-ix/university-title-ix-statement> and https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html.

Student Support Resources

GMU has several support resources available to all students. Potentially useful starting points include:

- Learning Services: <https://learningservices.gmu.edu>
- Student Health Services: <https://shs.gmu.edu>
- Counseling and Psychological Services: <https://caps.gmu.edu>
- Student Support and Advocacy Center: <https://ssac.gmu.edu>
- Diversity, Equity and Inclusion: <https://diversity.gmu.edu>
- Sexual Misconduct, Harassment and Discrimination resources:
<https://diversity.gmu.edu/equity-access-services/title-ix>
- Title IX Contacts:
<https://diversity.gmu.edu/equity-access-services/title-ix/who-can-i-speak>
- University Career Services: <https://careers.gmu.edu>

Many other resources are listed under Student Life: <https://www.gmu.edu/student-life>