

INTRODUCTORY HISTORICAL GEOLOGY

Geology 104 - Fall 2025 – Section 201

Instructor: Sophia Damico

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Office: Exploratory Hall 3416 (in the Geology Suite (previously the Forensic Anthropology Suite))

Office Hours: Tuesdays 8:00-10:00 am

Classroom: Exploratory Hall 1309

Lab Course Material:

1 - Historical Geology Workbook, 6th edition, 2024, ISBN: 9798385128136

******THE USE OF THIS WORKBOOK IS MANDATORY. You must have a copy of the correct workbook by the second week of class or each lab will be deducted by 1 point. Labs will not be accepted for credit without this book after week 4 unless you have made other arrangements with me.******

NOTE: Labs to not begin until the SECOND week of the semester -September 2, 2025

Learning Management System: Canvas

NOTE: You are responsible for reading all Canvas announcements. I send important information to you about exams and assignments there. Please ensure that your Canvas notifications are turned ON.

General information and lab policies

- This course fulfills the requirements for the GMU Core courses in the natural science, specifically, learning outcome 5: students will participate in scientific inquiry and communicate the elements of the process, including: a) making careful and systematic observations, b) developing and testing a hypothesis, c) analyzing evidence, and d) Interpreting results.
- GEOL 104 lab sections are scheduled for the duration of 2 hours 40 minutes.
- The laboratory consists of **12** lab sessions and 2 lab exams.: one midterm and one final.
- Attendance to the lab is mandatory.
- **Make up policy:** If you need to miss a lab, you must notify me **in advance**. If you let me know after the fact, I reserve the right to refuse to allow you to make up the lab. Things happen, so there is no limit to the number of labs you can make up, but it is your responsibility to organize the makeup. You may make the lab up in a different section, **but you must clear it with the instructor of that section as well as myself**. Once I approve your makeup, I will give you the contact information for the instructor of another section based on your availability. Be aware that not every lab instructor runs the same lab—be sure to check which lab they are running before you ask to make one up. Your lab assignment **will still be due before our next regular lab section**. You may not make up quizzes.

- **Lab excuses:** You are responsible for planning ahead to arrive on time. Getting caught in unexpected traffic once is understandable, but should not happen every week.
- **Tardy work:**
 - **Labs:** Lab work is due BEFORE the following lab period. For example, the lab work for Tuesday, 9/2 will be due on Tuesday, 9/9 at 10:29 am. I will accept late work with a deduction of 10% every 24 hours that it is late. This means that I will only accept late work for partial credit for up to 10 days.
 - **Quizzes:** Quizzes are administered during the first 10 minutes of class. If you are more than 10 minutes late to class, you will not be allowed to start the quiz, and you will receive a 0. This means that if you arrive at 10:40 or earlier, you will be allowed to take the quiz.
- Students are expected to participate actively in the laboratory activities and to collaborate at the solution of the problems presented during the session, however, students are responsible for doing their own work and take exams individually. Each student is required to submit their own individual work from **their own work book**. Please write your name at the top of your work.
- Missing a lab can be detrimental to your overall lab grade, as you will not be taught the information that will be on the exams.
- Students enrolled in this class abide by all university Policies and uphold the GMU Honor Code. See last two pages of this Syllabus for details and your responsibilities.
- Students take responsibility for their actions during GEOL 104 lab time. Disruptive behavior during lab time will not be tolerated.
- **Phone policy:**
 - During quizzes, you will place your phone face down on the table in front of you so I can see that you are not using it. Use of your phone, earbuds, smartwatches, and other devices are not allowed while I am lecturing. You may use your phone, earbuds, laptops, etc. while completing the lab, but please try to stay focused on the lab work.
- **AI policy:**
 - The use of AI is **NOT ALLOWED**. If I suspect that you have used AI to complete a lab assignment, quiz, or exam, I will give you a 0 on that assignment and report you to the office of Academic Standards. This is an introductory geology laboratory. I do not expect you to be a geology expert but I do expect you to try your best and to complete your work yourself.

Course assessment

- Course is assessed based on lab exercises scores, weekly quizzes, and the two mandatory exams (Lab exam 1 and lab exam 2). Exams are based on the material presented during the labs.
- Exam 1 (midterm): 30% of final grade
 - Based on information from labs 1-6
 - Will be taken **in person**
- Exam 2 (final): 30% of final grade
 - Non-comprehensive. Based on information from labs 7-12
- Lab exercises: 30% of final grade
 - Each is worth 10 points
 - Lab exercises are due on Canvas by the start of the next lab period. For example, the lab work for **Tuesday, 9/2 will be due on Tuesday, 9/9 at 10:29 am.**
 - Please upload your work as a **single PDF document**. I will take off one point if you upload multiple documents, and I will take off one point if your work is not a PDF.
 - There are several apps that will allow you to create a PDF of your workbook — the Apple notes app, Adobe app, and CamScanner app are a few.
 - I will drop your lowest **one** lab.
 - In order to receive full credit on a lab, it must meet the following criteria:
 - Complete
 - Legible
 - On time
 - A single document
 - PDF format
 - Pages in order and correct orientation (not upside down!)
 - Required questions thoughtfully completed (including any questions I may add during class)
 - Unless otherwise noted, in order to receive credit for a lab assignment, you must complete the lab work **IN CLASS**. If you leave immediately after I finish lecturing but still turn in a lab, you will not get credit.
- Pre-lab quizzes: 5% of final grade
 - Quizzes will be based on **THAT DAY'S** material. There is a short chapter before each lab. Please read this **BEFORE** coming to class, as I will draw quiz questions from this reading. These quizzes are designed to introduce you to the lab material before the lab begins—they are NOT difficult.
 - Please be **ON TIME**. Quizzes will be handed out at the start of class and will be due at **10:40**. The quiz should take you 5 minutes, but you will have the entire 10 minutes to take it. If you arrive before 10:40, you will be allowed to start the quiz, but it will still be due at 10:40. If you arrive at 10:39, you will have one minute to take the quiz.
 - If you miss the quiz or arrive after **10:40**, you will not be allowed to make up the quiz and you will receive a 0.

- Quizzes will be returned to you by the next class period. You should use them to study.
- There will **not** be a quiz on the first day of lab.
- Participation: 5% of final grade
 - Your participation score is based on active work in lab and engagement in class. To receive full credit, you must engage in the lab material, turn in the labs, and arrive in time to take the quizzes. Serial lateness will result in a reduction of participation score.
- Final grade is assigned based on the following score to letter grade scale

Letter Grade	Percent Grade
A+	97-100
A	93 to <97
A-	90 to <93
B+	87 to < 90
B	83 to <87
B-	80 to < 83
C+	77 to <80
C	73 to <77
C-	70 to < 73
D	65 to <70
F	<65

- If you are struggling with the material, please come see me sooner rather than later. It is easier to salvage a grade at the beginning of the semester than at the end. Remember that I'm here to help you and I want you to succeed!

GMU policies

- [Academic Integrity](#) It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: "Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work." More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the [Office of Academic Integrity](#) website
- [Disability Accommodation](#). If you need special accommodations/arrangement for the class and the exams, you must first file with the [Office of Disability Services](#) (ext: 993-2474)
- [Diversity](#) and [Inclusion](#): Faculty, staff and students in this course welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

- As a faculty member I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's [Title IX Coordinator](#) per [university policy 1412](#). If you wish to speak with someone confidentially, please contact the [Student Support and Advocacy Center](#) (703-380-1434) or [Counseling and Psychological Services](#) (703-993-2380) and [Mason's Title IX Coordinator](#) (703-993-8730; titleix@gmu.edu)
- Privacy: [Student privacy](#) is governed by the [Family Educational Rights and Privacy Act \(FERPA\)](#) and is an essential aspect of this course. Students must use their MasonLive email account to receive important University information, including communications related to this class. In accordance with FERPA regulation, I will not respond to messages sent from or send messages to a non-Mason email address.

Resources and suggestion for academic success

- GMU Resources: GMU has additional resources for your academic success; among others: [Academic success workshops](#) (see calendar), [University Life for students](#).

GEO104 LABORATORY calendar – Fall 2024

Lab Session	Topic *	Date of lab	Due (by start of lab)	Quiz
1	Review of major rock forming minerals, rocks and plate tectonics	9/2		
2	Sedimentary rocks, sedimentary environments and structures	9/9	Review of Rock Forming Minerals	1: Sedimentary rocks
3	The sedimentary archive under the microscope. Sands and microfossils	9/16	Sedimentary Rocks	2: Sedimentary archive
4	Stratigraphy rules, unconformities and correlations – Relative dating	9/23	Sedimentary Archive	3: Stratigraphy rules
5	Radiometric dating and the geologic time scale	9/30	Stratigraphy rules	4: Radiometric dating
6	Lithostratigraphic Correlations - The geologic time scale – Review	10/7	Radiometric dating	5: Lithostratigraphic correlations
Exam 1		10/14		
7	Modes of fossilization - Reef builders: Sponges, Corals, Bryozoans and Brachiopods	10/21	Lithostratigraphic correlations	6: Modes of fossilization
8	Mollusks, Arthropods and Echinoderms	10/28	Modes of fossilization	7: Mollusks, Arthropods and Echinoderms
ELECTION DAY – no classes		11/4		
9	Pollen lab	11/11	Mollusks, arthropods and echinoderms	8: Pollen
10	Dinosaur Biomechanics	11/18	Pollen	9: Dinosaur Biomechanics
11	Evolution in the fossil record – Human evolution	11/25	Dinosaur Biomechanics	10: Evolution in the fossil record
THANKSGIVING RECESS		11/26-11/30		
12	Geology of National Parks	12/2	Evolution in the fossil record	11: Geology of National Parks
		12/9	Geology of National Parks	
EXAM 2: 10:30-1:15		12/16		

*unforeseen circumstances might result in a change/rearrangement of the lab topics.

GMU POLICIES that Apply to this and any course at GMU:

In accordance with Catalog Policy AP.2.5, the following apply to this Course:

Academic Standards

Academic Standards exist to promote authentic scholarship, support the institution's goal of maintaining high standards of academic excellence, and encourage continued ethical behavior of faculty and students to cultivate an educational community that values integrity and produces graduates who carry this commitment forward into professional practice.

As members of the George Mason University community, we are committed to fostering an environment of trust, respect, and scholarly excellence. Our academic standards are the foundation of this commitment, guiding our behavior and interactions within this academic community. The practices for implementing these standards adapt to modern practices, disciplinary contexts, and technological advancements. Our standards are embodied in our courses, policies, and scholarship, and are upheld in the following principles:

- **Honesty:** Providing accurate information in all academic endeavors, including communications, assignments, and examinations.
- **Acknowledgement:** Giving proper credit for all contributions to one's work. This involves the use of accurate citations and references for any ideas, words, or materials created by others in the style appropriate to the discipline. It also includes acknowledging shared authorship in group projects, coauthored pieces, and project reports.
- **Uniqueness of Work:** Ensuring that all submitted work is the result of one's own effort and is original, including free from self-plagiarism. This principle extends to written assignments, code, presentations, exams, and all other forms of academic work.

Violations of these standards—including but not limited to plagiarism, fabrication, and cheating—are taken seriously and will be addressed in accordance with university policies. The process for reporting, investigating, and resolving violations is outlined in the [university's procedures](#). Consequences of violations may include academic sanctions, disciplinary actions, and other measures necessary to uphold the integrity of our academic community

Student responsibility: *Students are responsible for understanding how these general expectations regarding academic standards apply to each course, assignment, or exam they participate in; students should ask their instructor for clarification on any aspect that is not clear to them.* [Link to the GMU honor Code document](#)

Accommodations for Students with Disabilities

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 George Mason University. If you are seeking accommodations, please visit <https://ds.gmu.edu/> for detailed information about the Disability Services registration process. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu, phone: (703) 993-2474.

Student responsibility: *Students are responsible for registering with Disability Services and communicating about their approved accommodations with their instructor in advance of any relevant class meeting, assignment, or exam.*

FERPA and Use of GMU Email Addresses for Course Communication

The [Family Educational Rights and Privacy Act \(FERPA\)](#) governs the disclosure of [education records for eligible students](#) and is an essential aspect of any course. Students must use their GMU email account to receive important University information, including communications related to this class. Instructors will not respond to messages sent from or send messages regarding course content to a non-GMU email address.

***Student responsibility:** Students are responsible for checking their GMU email regularly for course-related information, and/or ensuring that GMU email messages are forwarded to an account they do check.*

Title IX Resources and Required Reporting As part of George Mason University's commitment to providing a safe and non-discriminatory learning, living, and working environments for all members of the University community, the University does not discriminate based on sex or gender in any of its education or employment programs and activities. Accordingly, all non-confidential employees, including your faculty member, have a legal requirement to report to the Title IX Coordinator, all relevant details obtained directly or indirectly about any incident of Prohibited Conduct (such as sexual harassment, sexual assault, gender-based stalking, dating/domestic violence). Upon notifying the Title IX Coordinator of possible Prohibited Conduct, the Title IX Coordinator will assess the report and determine if outreach is required. If outreach is required, the individual the report is about (the "Complainant") will receive a communication, in the form of an email, offering that person the option to meet with a representative of the Title IX office. For more information about non-confidential employees, resources, and Prohibited Conduct, please see [University Policy 1202: Sexual and Gender-Based Misconduct and Other Forms of Interpersonal Violence](#). Questions regarding Title IX can be directed to the Title IX Coordinator via email to TitleIX@gmu.edu, by phone at 703-993-8730, or in person on the Fairfax campus in Aquia 373.

***Student opportunity:** If you prefer to speak to someone confidentially, please contact one of Mason's confidential employees in [Student Support and Advocacy Center](#) (703-380-1434) or [Counseling and Psychological Services](#) (703-993-2380), [Student Health Services \(SHS\)](#), (703-993- 2831) and/or the [Office of the University Ombudsperson](#). (703) 993-6596.*

Statement on Diversity and Inclusion: Faculty, staff and students in this course welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

***Student opportunity:** If you need to speak to somebody regarding Diversity and inclusion, contact [office of access, compliance, and community](#) (703-993-8730). For religious holidays, see the calendar under this*

link: [*religious holidays*](#) and inform the instructor at the beginning of the semester to receive a waiver for penalties on make-up.