

Geology 103-213
Physical Geology Laboratory
Fall 2024 Syllabus

Meeting Times and Location

Thursdays 12:00 – 2:45 pm
Exploratory Hall L503 (in-person)

Instructor

Dr. Jules Goldspiel
Department of Atmospheric, Oceanic and Earth Sciences (AOES)
Office: Exploratory Hall 3414
Office Hours: Wednesdays 2:30 – 4:00 pm
 Thursdays 3:30 – 4:30 pm
 Other days and times by appointment
e-mail: jgoldspi@gmu.edu (best contact method)

Course Information

1 Credit

This Laboratory Course helps fulfill the Mason Core course requirements for the Exploration Courses within the Natural Science with Laboratory category. The goals of natural science core courses are to engage you in scientific exploration, foster your curiosity, enhance your enthusiasm for science, and enable you to apply scientific knowledge and reasoning to personal, professional and public decision making.

Specifically, this Laboratory Course will enable you to participate in scientific inquiry and communicate the elements of the scientific process, including: a) making careful and systematic observations, b) developing and testing a hypothesis, c) analyzing evidence, and d) interpreting results.

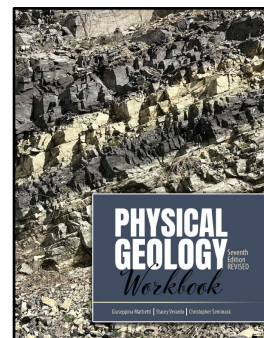
This Laboratory Course works in coordination with GEOL 101 (Physical Geology), a separate 3-credit Lecture Course. GEOL 103 generates a separate letter grade from the Lecture Course (GEOL 101). Scores earned in this Laboratory Course do not directly contribute to the GEOL 101 course grade. It is recommended that GEOL 101 and GEOL 103 be taken during the same semester, but they are each stand-alone courses and may be taken during different semesters. It is the student's responsibility to verify the requirements for their major and verify their enrollment status in this Laboratory Course and the associated Lecture Course as necessary to meet those requirements. Please consult with your Academic Advisor if you are unsure about the Laboratory course requirement for your major.

The coursework for this class consists of 14 lab sessions: 12 laboratory exercises and 2 exams (see the Tentative Laboratory Exercise and Exam Schedule below). Each lab session has a scheduled duration of 2 hours 45 minutes. Expect to spend that amount of time in lab each session.

Required Laboratory Workbook

Physical Geology Workbook, 7th Edition REVISED, 2022, G. Mattietti, S. Verardo, and C. Seminack. Kendall Hunt. ISBN 979-8-3851-3174-7

- Workbook is available at GMU Bookstore and <https://he.kendallhunt.com/product/physical-geology-workbook-0>
- Note that this is the REVISED version of the 7th Edition. The workbook cover should have a blue-grey title box, not a black title box



Required Coursework & Grading Weights

Weight	Coursework
33%	Lab Exercises (all combined)
33%	Lab Exam I
34%	Lab Exam II (Lab Final Exam)

The required work for this course consists of 12 laboratory exercises and 2 exams. The grading weights of the coursework elements are as listed in the table at left.

Lab exercise scores will be based on participation and completeness.

Exam scores will be based on correctness and completeness. Exams will not be cumulative; they will only cover the material discussed in the preceding half of the class (see Tentative Laboratory Exercise and Exam Schedule). The exams will be time-limited and will be scored for accuracy.

Grade Scale

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Weighted Score (%)	≥ 99%	92.0 – 98.9%	90.0 – 91.9%	88.0 – 89.9%	82.0 – 87.9%	80.0 – 81.9%	78.0 – 79.9%	67.0 – 77.9%	65.0 – 66.9%	50.0 – 64.9%	< 50%

Course grades will be determined by the weighted percentage of total points possible (see Required Coursework & Grading Weights). The base (i.e., standard) grade scale is as indicated in the table above. The grade scale is subject to change, but if any changes are made, it will be favorable to students (i.e., if the scale is changed, the cutoff for a grade would be at a lower percentage not higher).

Tentative Laboratory Exercise and Exam Schedule

Semester	Week	Date	Topic	Workbook Chapter
	1	08/29	<i>No Lab (first lab session is Sep 05)</i>	
	2	09/05	Common Rock Forming Mineral Identification	1
	3	09/12	Igneous Rock Identification	2
	4	09/19	Sedimentary Rock Identification	3
	5	09/26	Metamorphic Rocks	4
	6	10/03	Mineral and Rock Review	5
	7	10/10	<i>Lab Exam I</i>	
	8	10/17	Topographic Maps	6
	9	10/24	Volcanic Processes	7
	10	10/31	Landscape Modification by Stream Erosion	8
	11	11/07	Coastline Morphology (Coastline Evolution)	10
	12	11/14	Mass Wasting (Mass Movement)	11
	13	11/21	Earthquake Analysis	12
	14	11/28	<i>Thanksgiving Recess (No Lab)</i>	
	15	12/05	Geologic Structures and Geologic Maps	13
	16	12/12	<i>Lab Exam II (Lab Final Exam) (12:00 – 2:45 pm)</i>	

Note: Lab Exercise topics and schedule may be modified by the instructor as the semester progresses.

Key Add/Drop/Withdrawal Dates

- Sep 03 Last day to add classes
- Sep 09 1st drop deadline (full tuition refund, no record on transcript)
- Sep 17 2nd drop deadline (50% tuition refund, no record on transcript)
- Oct 01 Last day for unrestricted Self-Withdrawal (no tuition refund, W on transcript)
- Oct 28 Last day for Selective Withdrawal (no tuition refund, W on transcript)

Course Policies

Electronic Devices: The use of electronic devices (e.g., computer, tablet, phone, calculator) is permitted while working on the laboratory exercises. 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.

Calculators are the only electronic aids that may be used during exams. If you plan to use a calculator function on a phone, tablet or other electronic device during an exam, you must only use the calculator function. No other use of electronic devices is allowed during exams, i.e., you may not use electronic devices to access notes or any other outside 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 George Mason University computers and 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., pre-lab briefing 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 "Recording (Audio/Video) and Copies of Class Presentations Acknowledgement" form from Disability Services, or a similar form provided by the instructor. In all cases, the opinions, questions and comments of other class members may not be shared at any point with anyone else.

Attendance: On-time attendance is required to earn full credit for each laboratory exercise, as is full and active participation in the lab exercises.

Laboratory Exercises: All exercises are due by the end of the scheduled lab time unless otherwise specified by the instructor. Labs completed after the end of the scheduled lab time are subject to a 10% late penalty.

Exams: Exam I will be taken during the regular lab meeting time on the day listed in the course schedule. Exam II (the Lab Final Exam) will be taken during Final Exam week at the day and time listed on the course schedule. If GMU is closed on the scheduled date of an Exam, the make-up date and time of the Exam will be announced through the class Blackboard site and GMU e-mail.

All exams must be completed within 2 hours and 45 minutes of the scheduled exam start time.

Your laboratory exercise workbook is the only outside source of information you may use during exams. Use of all other books, notes, or any other outside information is prohibited.

Missed Labs and Exams: It is important to attend each lab session as scheduled. Missing a lab can be detrimental to your overall lab grade, both in terms of the missed lab grade, and because you will not get the corresponding information and experience that will be helpful during the exams.

Make-up labs will not be administered at the end of the semester. Reasonable accommodations will be made for missed lab exercises and exams due to sickness, religious observance and other unavoidable schedule conflicts if the instructor is notified prior to the date the lab is executed or exam is given. Each laboratory exercise is only available for a short period of time before or after the scheduled class time, so it is important to notify the instructor as soon as you are aware of the possibility of missing a lab. Unusual situations that prevent advance notice to the instructor will be handled on a case-by-case basis.

Laboratory exercises and exams that are not completed or remain unexcused one week after the scheduled date are subject to a grade of zero.

Collaboration: Students are encouraged to participate actively in the lab activities and to collaborate on the solutions for the problems presented during the session. In other words, students may work together and discuss with each other the information and concepts covered in the laboratory exercises. However, each student is responsible for completing each part of each lab exercise as assigned and submitting their own work. 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.

Conduct During Lab Sessions: Students are responsible for their actions during lab and exam times. Disruptive behavior will not be tolerated. Students are also bound by all university policies and must abide by the GMU Honor Code (<https://oai.gmu.edu/full-honor-code-document/>).

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 lab 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

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.

Common policies that affect all courses at GMU regarding Academic Standards, Accommodations for Students with Disabilities, FERPA and Use of GMU E-mail Addresses for Course Communication, and Title IX Resources and Required Reporting are listed below. These policies are also posted at <https://sternscenter.gmu.edu/home/gmu-common-course-policies/>.

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 which 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, co-authored 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 adjudicating violations is outlined in the university's procedures (see <https://academicstandards.gmu.edu/>). Consequences of violations may include academic sanctions, disciplinary actions, and other measures necessary to uphold the integrity of our academic community.

The principles outlined in these academic standards reflect our collective commitment to upholding the highest standards of honesty, acknowledgement, and uniqueness of work. By adhering to these principles, we ensure the continued excellence and integrity of George Mason University's 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.

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 GMU. 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) (see <https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>) governs the disclosure of education records for eligible students (see <https://registrar.gmu.edu/ferpa/>) 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 a part of George Mason University's commitment to providing a safe and non-discriminatory learning, living, and working environment for all members of the University community, the University does not discriminate on the basis of 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, likely 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 (<https://universitypolicy.gmu.edu/policies/sexual-harassment-policy/>). 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 (SSAC), Counseling and Psychological Services (CAPS), Student Health Services (SHS), and/or the Office of the University Ombudsperson.

Diversity and Inclusion: 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.

Title IX

Title IX is a federal civil rights law that 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 covered 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:

- Mason email: <https://mail.gmu.edu>
- Office for Academic Integrity: <https://oai.gmu.edu>
- 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>
- University Career Services: <https://careers.gmu.edu>
- Office of the University Ombudsperson: <https://ombuds.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 at Mason:
<https://diversity.gmu.edu/equity-access-services/title-ix/who-can-i-speak>

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