# Geology 103-207 Physical Geology Laboratory Fall 2022 Syllabus

#### **Meeting Times and Location**

Tuesdays 3:00 –5:45 pm Exploratory Hall L503

All classes are scheduled to be conducted in-person. If COVID or other issues prevent in-person classes, classes will be conducted synchronously online (i.e., live online) through Blackboard Collaborate Ultra. The Collaborate Ultra system may be accessed through the Tools menu on the course Blackboard page.

## Instructor

Dr. Jules Goldspiel College of Science, Department of Atmospheric, Oceanic and Earth Sciences

| e-mail:       | jgoldspi@gmu.edu (best contact method)                                                |
|---------------|---------------------------------------------------------------------------------------|
| Office:       | Exploratory Hall 3414                                                                 |
|               | Located in Exploratory Hall 3400 Office Suite (with Forensic Science Program offices) |
| Office Hours: | Tuesdays 11:30 am – 12:30 pm                                                          |

Fridays 11:30 am – 12:30 pm Other days and times by appointment

## **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. Specifically, this lab will enable students to 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.

This Laboratory Course works in coordination with GEOL 101, a separate 3-credit Lecture Course. This Laboratory 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 standalone courses and may be taken during different semesters. It is the student's responsibility to verify the requirements for their major and their enrollment status in this Laboratory Course and the associated Lecture Course as necessary to meet those requirements.

The coursework for this class consists of 13 lab exercise sessions and 2 exams (see the Laboratory Exercise and Exam Schedule table below). Each lab session is scheduled for a duration of 2 hours 45 minutes. Expect to spend that amount of time in lab each session.

## **Required Laboratory Workbook**

*Physical Geology Workbook*, 7<sup>th</sup> Edition, 2022, G. Mattietti, S. Verardo, and C. Seminack. Kendall Hunt. ISBN 9798765710371

(See GMU Bookstore or https://he.kendallhunt.com/product/physical-geology-workbook-0)

#### **Required Work & Grading Weights**

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

The graded work for this course consists of 13 laboratory exercises and two exams. The weights of each element 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.

#### **Grade Scale**

| Grade | Coursework % |
|-------|--------------|
| А     | ≥ 90%        |
| В     | 80 - 89%     |
| С     | 65 – 79%     |
| D     | 50 - 64%     |
| F     | < 50%        |

Letter grades will be determined by the weighted percentage of total points possible, with point values weighted as indicated in the table above. The grade scale is subject to change if the class mean is lower than expected, but any such change would be more favorable to students, i.e., the cutoffs for each grade could be at lower percentages than indicated by this scale but they will not be higher.

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

## Tentative Laboratory Exercise and Exam Schedule

| Week | Date  | Торіс                                                  | Workbook<br>Chapter |
|------|-------|--------------------------------------------------------|---------------------|
| 1    | 08/23 | Common Rock Forming Minerals (Mineral Identification)  | 1                   |
| 2    | 08/30 | Igneous Rocks                                          | 2                   |
| 3    | 09/06 | Sedimentary Rocks                                      | 3                   |
| 4    | 09/13 | Metamorphic Rocks                                      | 4                   |
| 5    | 09/20 | Rock Review                                            | 5                   |
| 6    | 09/27 | Lab Exam I                                             |                     |
| 7    | 10/04 | Topographic Maps                                       | 6                   |
| 8    | 10/11 | No Lab (Monday classes and labs meet this day instead) |                     |
| 9    | 10/18 | Volcanic Processes                                     | 7                   |
| 10   | 10/25 | Stream Erosion (Landscape Evolution by Stream Erosion) | 8                   |
| 11   | 11/01 | Flooding                                               | 9                   |
| 12   | 11/08 | Coastline Morphology (Coastline Evolution)             | 10                  |
| 13   | 11/15 | Mass Wasting (Mass Movement)                           | 11                  |
| 14   | 11/22 | Earthquake Analysis                                    | 12                  |
| 15   | 11/29 | Structure (Structural Geology and Crustal Deformation) | 13                  |
| 16   | TBD   | Lab Exam II (Lab Final Exam)                           |                     |

If GMU is closed on the scheduled date of the Final Exam, the make-up date and time of the Final Exam will be announced. Check Blackboard and GMU e-mail.

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

## Key Add/Drop/Withdrawal Dates

- Aug 29 Last day to add classes
- Sep 06 1<sup>st</sup> drop deadline (full tuition refund, no record on transcript)
- Sep 13 2<sup>nd</sup> drop deadline (50% tuition refund, no record on transcript)
- Sep 27 Last day for unrestricted Self-Withdrawal (no tuition refund, W on transcript)
- Oct 24 Last day for Selective Withdrawal (no tuition refund, W on transcript)

## **Course Policies**

<u>Electronic Devices</u>: 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 disruptive to the class.

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.

Calculators are the only aid 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.

Also note that you may have to use University computers as part of the required work in this course. All standard University policies apply to the use of University computers and University computer systems for this course. Please see the GMU polices website for a summary of the University computer policies (https://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

<u>Course Materials and Presentations</u>: All course materials and presentations (e.g., lecture outlines, lecture charts, exams, demonstrations) are for course use only. *They 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.

<u>Recording of Lectures</u>: Lectures and demonstrations may *not* be electronically recorded without prior permission of the instructor and completion of the appropriate University Recording/Lecture Notes Agreement form. The opinions, questions or comments of other class members must not be played back to anyone outside of the class.

<u>Attendance</u>: Attendance is required to earn full credit for each laboratory exercise, as is full and active participation in the lab exercises.

<u>Laboratory Exercises</u>: 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 15% late penalty.

<u>Exams</u>: 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. Your laboratory exercise workbook is the only outside source of information you may use during exams. Use of all other books, notes, or other outside information is prohibited.

<u>Missed Labs and Exams</u>: Make-up labs will not be administered, so 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.

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. Unusual situations that prevent advance notice to the instructor will be handled on a case-by-case basis. In any event, lab exercises and exams that remain unexcused one week after the scheduled date are subject to a grade of zero.

<u>Collaboration</u>: 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 and submitting their own work.

Any discussions and collaborations must be done in accord with all current University and local authority COVID-19 protocols, policies and regulations.

Collaboration of any sort is not permitted during exams.

<u>Conduct During Lab Sessions</u>: Students take responsibility for their actions during lab and exam times. Disruptive behavior during lab or exam times will not be tolerated. Students are also bound by all university Policies (including the Facemask Policy in effect on each laboratory meeting day) and must abide by the GMU Honor Code (https://oai.gmu.edu/mason-honor-code/).

<u>Grade Postings on Blackboard</u>: All course scores will be posted on Blackboard unless otherwise requested. Please tell the instructor if you do not want your scores posted on Blackboard.

<u>Unscheduled University Closure</u>: 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.

#### **University Policies**

<u>General University Policies</u>: 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.

<u>Academic Integrity</u>: GMU is an Honor Code university; please see the Office for Academic Integrity (https://oai.gmu.edu) for a full description of the code and the honor committee process. The principle of 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 aspect 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.

<u>Electronic Communications</u>: The instructor will only use the GMU e-mail or Blackboard systems for electronic communications with students. To make such communications easier, it is requested that all student electronic communications to the instructor be sent through your GMU e-mail account or through Blackboard. Please do not use personal e-mail accounts. For more information about student e-mail accounts, please see the GMU mail website (http://mail.gmu.edu).

<u>Disability Accommodations</u>: All academic accommodations must be arranged through Disability Services. If you need academic accommodations, please contact Disability Services at 703-993-2474 or talk to the instructor. See also the Disability Services website (https://ds.gmu.edu) for more information.

<u>Diversity</u>: 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.

<u>Sexual Misconduct and Interpersonal Violence</u>: 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
- Tutoring Resources: https://learningservices.gmu.edu/tutoring-resources
- 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/title-ix
- University Title IX Coordinator: https://diversity.gmu.edu/title-ix/who-can-i-call
- University Career Services: https://careers.gmu.edu

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

# Coronavirus/COVID-19 Information and Resources

While the risk of major disruption to classes and other University activities has been reduced, COVID-19 and other community health issues remain a potential threat to the normal operations of classes and other activities at GMU. Please pay attention to announcements regarding changes that may be made to this class and other classes as conditions warrant. Should changes occur, you will be required to follow the enacted University health policies, procedures and associated requirements.

Information and resources related to COVID-19 and potential impacts on GMU procedures operations can be found at GMU's Safe Return to Campus site (https://www.gmu.edu/safe-return-campus).

<u>Facemask Requirements</u>: Students are required to follow the GMU facemask policy that is in force on each class meeting day (see https://www.gmu.edu/safe-return-campus/personal-and-public-health/face-coverings). Facemask requirements may change during the semester. If they do, you will be informed.