



HISTORICAL GEOLOGY LABORATORY

Geology 104

Section: 201 (**Mondays 1:30-4:10 p.m.**)

George Mason University

Spring 2024

Instructor: David Hoppe

Office: Exploratory Hall Room 3455 (in the AOES Department Suite)

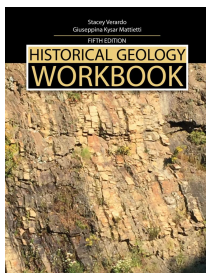
Contact Email: dhoppe2@gmu.edu

Office Hours: Wednesdays 1:00-3:00 p.m. (or by appointment)

Classroom: Exploratory Hall Room 1309

MANDATORY Laboratory Workbook: Historical Geology Workbook, 5th edition, 2018, Verardo, Mattiotti ISBN: 978179243075 (**ORDER AS SOON AS POSSIBLE!**)

<https://he.kendallhunt.com/product/historical-geology>



General information and Laboratory Policies:

- It is the student's responsibility to verify his/her enrollment status in this lab section.
- NOTE that the first week of lab will be held during the FIRST week of the semester.
- This course fulfills the requirements for the GMU Core courses in the natural sciences, 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."

- The laboratory course consists of **13** lab sessions (see **LABORATORY CALENDAR** on the last page of the syllabus). Lab session is scheduled for the duration of **2 hours 40 minutes**. Expect to spend that amount of time in lab!
 - The lab workbook (pictured and linked above) is **MANDATORY**. Please purchase your book as soon as possible. Lab activities must be completed in the workbook unless otherwise specified.
 - There will be **TWO** exams (a midterm and a final) to test your requisite knowledge of the material.
 - <https://registrar.gmu.edu/wp-content/uploads/Spring-2024-Final-Exam-Schedule.pdf>
 - Attendance in the lab is **MANDATORY**. I will not take attendance, but if you are not present you can't complete the lab activity. 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.
 - If you absolutely must miss a lab period for a legitimate reason (e.g. illness), please notify me **BEFORE** the lab session via email (dhoppe2@gmu.edu). From there, we have a few options:
 - Make-Up Lab: I will allow you to make up ONE lab during the semester. You can complete it during another week's lab session (or, in some cases, during office hours) **AFTER** you have completed the work for that week's lab.
 - Dropped Lab: At the end of the semester, I will drop your lowest lab score (**one** lab activity). **PLEASE DO NOT** use this as an excuse to miss a lab. You are still responsible for all the information taught during the lab sessions.
 - Attend Another Section: You have the option to attend a different lab section with another instructor. As previously stated, please let me know well in advance (i.e. **NOT** a few hours before lab starts) if you are going to miss a lab for a legitimate reason, and we can find another section for you to attend.
 - Students are encouraged to participate actively in the lab activities and to collaborate at the solution of the problems presented during the session.
 - Students take responsibility for their actions during GEOL 104 lab time. Students participating are bound by all university Policies and uphold the GMU Honor Code. Disruptive behavior during lab time will not be tolerated.
 - Students in GEOL 104 lab abide by the GMU Honor Code.
<https://oai.gmu.edu/mason-honor-code/>
 - Cheating: I will not tolerate plagiarism or cheating of any kind. All work you turn in must be your own. The use of AI tools such as ChatGPT is **NOT** allowed. Keep in mind that I reserve the right to give you a zero on any assignment or exam.
 - Lateness: If you are consistently late to labs/exams, you will lose points. You signed up for this class, at this time, so you are expected to be there on time!
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Course Assessment

- Course is assessed based on lab exercises scores and the two mandatory exams, (Midterm and Final). Exams are based on the lab material. Labs and exams are weighted as follows:

Lab Exercises (13 total): **40%**

Exam 1: **30%**

Exam 2: **30%**

TOTAL: **100%**

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

- Submission Deadlines: All exercises are **due on Blackboard at midnight on the day we have lab**, unless I specify otherwise. Some labs take longer than others, but the scheduled lab time (2 hrs 45 mins) should be more than enough time for you to complete the activity. However, if you do not finish, labs can be submitted late (**with a **10% grade deduction** for each day it is late) for up to 3 DAYS. After that, I will not accept late work.
- Extra Credit: Any extra credit opportunities will be given equally to all students. This may include optional extra credit assignments and questions on exams.

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.
<https://oai.gmu.edu/mason-honor-code/>
- Disability Accommodation. If you need special accommodations/arrangements for the class and the exams, you must first file with the Office of Disability Services (703-993-2474) <https://ds.gmu.edu/>

- 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. <https://diversity.gmu.edu/diversity>
- All faculty members are 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) <https://diversity.gmu.edu/title-ix>
- 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 Suggestions for Academic Success

- GMU Resources: GMU has additional resources for your academic success; among others: [Academic success workshops](#) (see Calendar-<https://learningservices.gmu.edu/academic-success-workshops/>) [University Life](#) <https://ulife.gmu.edu/students/>

GEOL 104 LABORATORY CALENDAR – Spring 2024

Lab Session	Topic*	Date
1	Review of major Rock-forming Minerals, Rocks, and Plate Tectonics	1/22
2	Sedimentary Rocks, Sedimentary Environments, and Structures	1/29
3	The Sedimentary Archive under the Microscope. Sands and Microfossils	2/5
4	Stratigraphy Rules, Unconformities, and Correlations – Relative Dating	2/12
5	Radiometric Dating and The Geologic Timescale	2/19
6	Lithostratigraphic Correlations	2/26
7	EXAM 1	3/11
SPRING BREAK – no classes		3/4-3/8
8	Modes of Fossilization - Reef Builders: Sponges, Corals, Bryozoans and Brachiopods	3/18
9	Mollusks, Arthropods and Echinoderms	3/25
10	Pollen in the Fossil Record	4/1
11	Geology of Virginia and Fairfax	4/8
12	Dinosaur Biomechanics	4/15
13	Evolution in the Fossil Record	4/22
14	The Evolution of Whales	4/29
15	EXAM 2 – FINAL EXAM	Monday 5/6 1:30-4:15 p.m.

*NOTE: Unforeseen circumstances might result in a change/rearrangement of the lab topics.