

INTRODUCTORY HISTORICAL GEOLOGY
Geology 104 – SPRING 2023 - Section: 201
EXPLORATORY 1309, MONDAYS 1:30-4:10 PM

Instructor: Margot “Maru” Nelson (she/her)

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Office Hours: Exploratory 3418, M 11 am-1 pm

Lab Course Material:

REQUIRED. Historical Geology Workbook, 5th edition, 2018, G. Mattiotti and S. Verardo. Kendall Hunt. ISBN: 9781792430756

Available at the GMU bookstore or [online](#).

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 45 minutes.
- The laboratory consists of 13 lab sessions and 2 lab exams: one midterm and one final. Attendance to the lab is mandatory.
 - Exceptions may be offered in the case of extenuating circumstances (illness, family emergency, vehicle breakdown, etc.) to be arranged with me as quickly as possible.
 - Make-up labs will not be offered without communication with me.
- Students are encouraged to participate actively in the lab activities and to collaborate at the solution of the problems presented during the session. However, the copying other students' work is unacceptable and will result in loss of 5 points for the lab for the first occurrence. Subsequent violations will not be graded and will receive a 0.
- 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.
 - Cell phones must be silenced while in class out of respect for your instructor and other students. However, feel free to use devices to research relevant topics while in class. Using devices for outside activities is grounds for a deducted lab score.

Course assessment:

- Course is assessed based on lab exercises' scores and the two mandatory exams. Exams are based on the lab material.
 - Your lowest lab grade will be dropped.
 - Exam 1 will cover labs 1-6; Exam 2 will cover labs 7-13. A handwritten note sheet measuring 8.5x11" is permitted on both exams. You may use both sides. I top-score exams (i.e., if best score is 90, 10 points are added to all exams so the best score is 100).
- Lab assignments are graded by participation. Answer questions completely, and you will get full points on the lab. Incomplete answers and skipped questions lead to deduction of points for the lab.
 - Another component of participation is coming to lab and attendance is taken at the beginning of each session.
 - Tardiness is not only inconsiderate towards your lab instructor and fellow students, but you may miss information crucial to completing the lab exercise. Tardiness exceeding 15 minutes can see a deduction of up to 2 points for the lab.
 - Missing lab without communication with me will result in a score of zero, even if you submit the lab online.
- Grade breakdown:
 - 12 labs, each worth 10 points = 120 points (38%)
 - 2 exams, each worth 100 points = 200 points (62%)
 - Total: 320 points
- 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

- Lab assignments must be completed by the end of the class session, and your assignment either turned in to me physically, or online via Blackboard.
 - Labs turned in late will lose 1 point for each day late.

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](#).

GEOL 104 LABORATORY calendar – SPRING 2023

Lab Session	Topic *	Date
1	Review of common minerals and rocks	1/23
2	Sedimentary rocks, environments, and structures	1/30
3	Sediments under the microscope	2/6
4	Laws of stratigraphy– relative dating	2/13
5	Radiometric dating	2/20
6	Stratigraphic correlations – the geologic time scale	2/27
7	Exam 1	3/6
SPRING BREAK		3/13
8	Reef Builders	3/20
9	Molluscs, Arthropods, and Echinoderms	3/27
10	Pollen in the fossil record	4/3
11	Geology of Virginia and Fairfax	4/10
12	Dinosaur Biomechanics	4/17
13	Evolution in the fossil record – human evolution	4/24
14	Geology of a National Park	5/1
	Exam 2 1:30-4:10 pm, Exploratory 1309	5/15

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

Congrats! You made it to the end of the syllabus. After the midterm, if you email me an image of any cetacean with its scientific name, I will reward you with 5 extra credit points.

Example:



Physeter macrocephalus