



Hunter College, CUNY

## GEOL 10100-04

### Introductory Geology Laboratory Syllabus Fall 2024

#### Instructor Information

**Instructor:** Vitali Badziai

**Office:** HC North, Room 1032

**Office Hours:** *Thursdays 11:20 PM to 12:20 PM or by appointment on Zoom.*

**E-mail:** vitali.badziai@qc.cuny.edu \*

**Companion website:** <http://www.geo.hunter.cuny.edu/geology/>

\*The best way to contact me is through your Hunter College email. I aim to answer all student emails within 24 hours. Allow for a 48-hour delay on the weekends.

#### Class Schedule

**Time:** *Mondays and Thursdays 2:30 PM to 3:45 PM.*

**Location:** Hunter College, HC North, Room 1021.

**Mode of Instruction:** In-Person

**Geology 101 Laboratory** is a fourteen-week course. The course will meet on the specified dates below and will utilize Blackboard to organize course materials and submit assignments. Students are expected to complete work within the specific week it is assigned.

| Dates    | Laboratory Topics / Exams  |
|----------|--|
| Th 8/29  | <b>Lab-2 Introduction and Plate Tectonics</b>                              |
| Mo 9/2   | College is Closed  |
| Th 9/5   | <b>Lab-2 Earth's Magnetism and Paleomagnetism</b>                          |
| Mo 9/9   | Lab-2  |
| Th 9/12  | <b>Lab-3 Mineral Identification</b>  |
| Mo 9/16  | Lab-3  |
| Th 9/19  | Lab-3  |
| Mo 9/23  | <b>Exam 1 (Ch. 2, 3)</b> ( <i>Last day to submit activities Ch. 2, 3</i> ) |
| Th 9/26  | <b>Lab-5 Igneous Rocks</b>   |
| Mo 9/30  | Lab-5  |
| Th 10/3  | No classes scheduled   |
| Mo 10/7  | Lab-5  |
| Th 10/10 | <b>Lab-6 Sedimentary Rocks</b>   |

|          |  |
|----------|--|
| Mo 10/14 | College is Closed  |
| Tu 10/15 | Monday schedule. Lab-6   |
| Th 10/17 | Lab-6  |
| Mo 10/21 | Lab-6  |
| Th 10/24 | <b>Lab-7 Metamorphic Rocks, Process, and Resources</b>                               |
| Mo 10/28 | Lab-7  |
| Th 10/31 | Lab-7  |
| Mo 11/4  | <b>Lab-4 The Rock Cycle: an overview of all rocks</b>                                |
| Th 11/7  | Lab-4  |
| Mo 11/11 | <b>Exam 2 (Ch. 5, 6, 7)</b> (Last day to submit activities Ch. 5, 6, 7).             |
| Th 11/14 | <b>Lab-14 Glaciers</b>   |
| Mo 11/18 | Lab-14   |
| Th 11/21 | <b>Lab-17 Earth Dynamic Climate</b>  |
| Mo 11/25 | Lab-17   |
| Th 11/28 | College is Closed  |
| Mo 12/2  | Geology of NYC assignment: Central Park Field Trip (Virtual)                         |
| Th 12/5  | <b>Lab-8 Dating of Rocks and Geologic Events</b>                                     |
| Mo 12/9  | Lab-8  |
| Th 12/12 | <b>Final Exam-Exam 3 (all chapters)</b> Last day to submit activities Ch. 8, 14, 17. |

\*All reading assignments are from the laboratory manual unless otherwise noted.

## Course Information

### Brief description/purpose of the course:

GEOL 101, Introductory Geology Lab, is a hands-on laboratory science course. GEOL 101 assists you, in learning and expanding your understanding of the scale of the Earth and the forces that shape it with hands-on laboratory and field experiences. This course will serve as an introduction to the earth sciences and will prepare you for further coursework in the Environmental Studies program. It will also give you a working knowledge and vocabulary to take other physical geography and geology courses. Moreover, it will introduce you to some of the cutting-edge technologies used in the earth sciences, potentially drawing some of you into an earth science-related career path. In general, there will be a 1:2 ratio between lecture and lab work over the course of each week.

The objectives and goals of this course include:

- An understanding of the nature of science and the scientific method.
- The importance of thinking critically about scientific data.
- A basic understanding of the rocks and minerals that make up the earth and the ability to identify the most important types of rocks and minerals and how they are formed (the rock cycle).

- A basic understanding of plate tectonics.
- An understanding of the vastness of geologic time, the Principle of Uniformitarianism and how geologists assess the ages of geologic features.
- An understanding of the formation and distribution of natural resources and the costs and benefits of their extraction.

This course will fulfill the **Common Core Requirement for Category C, Life and Physical Sciences.**

### **Learning Outcomes:**

By the end of this course, students will be able to:

- Describe the key components of the scientific method.
- Describe and identify rocks and minerals based on detailed observations.
- Relate geologic processes and the distribution of rocks, minerals, and geologic resources to the theory of Plate Tectonics.
- Interpret geologic cross-sections concerning geologic time and the rate of geologic processes.

**Course Structure:** This course will be taught in person on the Hunter College campus. All assignments, materials, tests, etc. will be posted on the **Hunter College Blackboard** site (please, find and register for this class on Blackboard). For each lab topic, there will be a folder containing recommended reading, additional learning materials, and a link to submit the lab exercise. Students are expected to check the site regularly and keep up with the material.

## **Books and Supplies**

### **Required textbook:**

- **Laboratory Manual in Physical Geology**, By AGI American Geological Institute, NAGT - National Association of Geoscience Teachers, Vincent Cronin, Dennis G. Tasa, Pearson, 12/e, 2021 ISBN-13: 9780135836972

### **Order book here:**

<https://hunter.textbookx.com/institutional/index.php?action=browse#books/4266741/>

- Please make sure that you bring to each class the following items: **Laptop**.

## **Policies & Procedures**

### **Course evaluation/grading:**

#### **Assignments**

9 labs  
Geology of NYC assignment  
3 exams  
Class participation  
Extra assignment (optional)  
Attendance

#### **Weighting**

45% (5% each)  
10%  
42% (14% each)  
3% (class activity)  
3% (extra)  
3% (extra)

While the exams are technically not cumulative, the material covered in the latter part of the course is dependent on the material from the earlier part of the course. Do NOT miss an exam. Make-up exams

will NOT be given except under the most extraordinary circumstances such as documented illness, documented death in the family, documented alien abduction, etc. Make up exams will be given at a mutually convenient time and while they will cover the same information as the original exam, the questions and/or practical materials will be different.

- **Laboratory Assignments:** Each week we will be undertaking laboratory exercises that investigate topics in conjunction with your lectures. Laboratory assignments may be from your textbook or from materials provided in class. Unless specified, each laboratory assignment is due at the end of the lab meeting. All materials handed in must be legible or they will not receive credit. Assignments will be submitted through Blackboard or in some cases submitted as paper handouts.
- To qualify for a Pass/No Credit grade, you must complete all the requirements for the course, including attendance, assignments, and exams.
- **To Pass, you must earn at least a D and attend at least 80% of the classes. *If you stop attending, submitting assignments, and/or do not take the final exam, you receive a grade of F.***
- **I do not accept assignments after following exams.**
- IF YOU MISSED A HOMEWORK / ASSIGNMENT OR EXAM DUE TO VARIOUS REASONS EXCEPT FOR HEALTH REASONS, I WOULD NOT RESET IT FOR YOU TO TAKE IT AGAIN. **Therefore, see the syllabus for deadlines and make sure you have all the resources you need** (time, location, good internet connection, reliable PC or laptop) to do homework and assignments.
- General: In addition, I leave myself a right to add or subtract 5-10 subjective points to/from the final grade, depending on your performance (class participation, attendance, distraction, etc.).

### **Classroom policies:**

There is no texting permitted in the classroom—**turn your phones off**. Earphones are not to be worn in the classroom either on ears or around your neck. No electronic devices are allowed during exams. No food or drink is allowed in the laboratory. Samples and equipment must be handled gently.

### **Absences:**

Attendance in laboratory sections is important for success. It is important to be on time for the lab and remain present for all synchronous activities. If you need to miss any portion of the lab, **notify your instructor** before class meets. A student who **misses more than 80%** of class meetings receives a grade of **F** for the course.

### **Laboratory Assignments:**

Each week we will be undertaking laboratory exercises that investigate topics in conjunction with your lectures. Laboratory assignments may be from your textbook or from materials provided in class. Unless specified, **each laboratory assignment is due at the end of the lab meeting. No late homework or reports will be accepted** (unless there is a proper excuse). All materials handed in must be legible, or they will not receive a credit. Assignments will be submitted through Blackboard or, in some cases, as paper handouts.

- Late labs: accepted only within 7 days after due, if not documented by medical or emergency case.

- Late submissions: **90% max.**
- If the lesson was missed: **5% off.**

### **Laboratory Preparation:**

Come to class prepared. I expect you to have read the laboratory exercise listed for each class *prior* to the beginning of that class period. Laboratory exercises are complex, and if you do not read them before class, you will have difficulty turning them in on time.

- You will complete the **lab exercises** in the lab manual for each lab and **submit it via Blackboard** (as a Word document). A link will be available in each module for you to submit your lab exercise.
- Grading of your laboratory exercises will be based on the quality and accuracy of the observations, explanations, answers to questions, and conclusions. The grading of your laboratory exercises will be as follows: **5=excellent, 4=good, 3=fair, 2=poor, 1=terrible, 0=not handed in.**
- Each laboratory exercise will include the following sections: **an introduction, charts, and tables that you will fill in on the appropriate pages of your lab manual, answers to the questions posed in the AGI Laboratory Manual, Results/Discussion, and a conclusion.** You must include the relevant figures, charts, graphs, etc., that a given question and/or answer refers to.
- The introductions and conclusions of your labs must be in your own words. You may work with other students at your table, but each of you must turn in your own work.
- Answer all questions in full sentences. **DO NOT RECOPY THE QUESTION.** Rather, answer the question so that the question is implicit in the answer. For instance, if the question is “What color is the rock on table A?” your answer might be “The color of the rock on table A is gray.” An unacceptable answer would be “gray.” Use proper grammar and spelling. If you aren’t sure of the spelling use a dictionary. A very convenient online dictionary can be found at [www.m-w.com](http://www.m-w.com).

### **Hunter College statement on Academic Integrity:**

Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures. Plagiarism, dishonesty, or cheating in any portion of the work required for this course will be punished to the full extent allowed according to Hunter College regulations.

### **ADA Policy:**

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212)772-4857 or (212)650-3230.

### **Hunter College Policy on Sexual Misconduct**

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College affirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as a certain intimate relationship. Students who have experienced any form of sexual violence on or off-campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, on contacting the College's Public Safety Office (212-772-4444)
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose ([jtrose@hunter.cuny.edu](mailto:jtrose@hunter.cuny.edu) or 212-650-3262) or Colleen Barry ([colleen.barry@hunter.cuny.edu](mailto:colleen.barry@hunter.cuny.edu) or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>