



# Fall '23 - GEOL 10100 Introductory Geology Laboratory

Tue & Thu 7:00pm – 8:15pm



## **Contact Information:**

**Instructor: Professor Anita Erdős Forrester**

**Office hours:** Tuesday 4:30-5:30, and by appointment

**Email:** You can reach me at [anita.forrester@hunter.cuny.edu](mailto:anita.forrester@hunter.cuny.edu) only – In order for me to respond to your emails as efficiently as possible please adhere to the following instructions: (1) Include the course name and number (GEOL 101) in your subject line. (2) Include your entire name as it appears in CUNYfirst in your email (3) Email me from your @myhunter account. Do not reply to Bb messages sent to the entire class. I answer all emails within 24 hours Monday through Friday. Messages sent over the weekend will be answered on Monday morning. I do not check my emails on the weekend, so plan accordingly. Please be sure to write a complete email, including a salutation and a signature.

**Please note that** all people have the right to be addressed and referred to in accordance with their personal identity. In this class, we will have the chance to indicate the name that we prefer to be called and, if we choose, to identify pronouns with which we would like to be addressed...I will do my best to address and refer to all students accordingly and support classmates in doing so as well.



## **Brief description/purpose of 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.

*This course will fulfill the Common Core Requirement for category C, Life and Physical Sciences. For Psychology majors, the course, combined with GEOL 10100, satisfies one of the laboratory science requirements*

## **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.

**Learning Outcomes:**

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

- interpret data by learning to read and create scientific graphs, test physical and quantitative models of isostasy and apply them to the Earth system
- define and discuss Plate Tectonic Theory
- identify the common minerals using basic tools of observation
- classify and identify igneous, sedimentary and metamorphic rocks
- apply the principles of relative and absolute dating to analyze the geologic history of an outcrop/region

**Required textbook(s):**

AGI/NAGT *Laboratory Manual in Physical Geology*, 12<sup>th</sup> ed. Richard M. Busch,

**Course Format:**

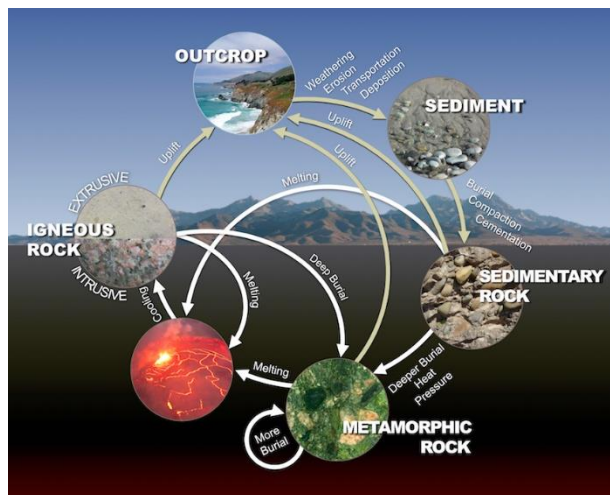
The course will meet as scheduled every Tuesday and Thursday from 7:00 - 8:15. Lab attendance is not optional, attendance will be taken and there will be occasional in-class assignments as well that will be part of your participation grade. Attendance in lab matters and is graded.

*Note:* On October 5<sup>th</sup>, and October 12<sup>th</sup>, there will be a museum field trip and a Central Park field trip scheduled. Both are self guided as our class meets after the museum is closed and when the park is not viewable from geologic perspective. I am attending a conference during these sessions (and there is no class as Hunter is closed on October 10<sup>th</sup>) so you will be able to schedule your trips at a time that is most convenient for you between September 29<sup>th</sup> and October 15<sup>th</sup> as long as you complete the assignments before our next class back on 10/17<sup>th</sup>.

**Course Grading Summary:**

|             |     |                      |     |                   |     |
|-------------|-----|----------------------|-----|-------------------|-----|
| Labs (10)   | 40% | Participation        | 10% | Museum Reflection | 15% |
| Quizzes (4) | 20% | Central Park Project | 15% |                   |     |

Submit your labs and other assigned work on time. There will be a 20% grade deduction for each day that your labs or assignments are late. Do NOT miss a quiz. Make-up quizzes 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 quizzes 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.



Participation is a smaller but still significant part of your final course grade. Your participation will be evaluated by your involvement in lab activities, attention in class, and questions you may ask during a lecture or lab activity.

Project will be discussed in more detail during the first few weeks of class, but it will be connected to the field trip to Central Park.

Reflection will be based on your visit to the AMNH.

The Hunter College grading system will be used in this class and can be viewed in the latest undergraduate catalog available online at <http://catalog.hunter.cuny.edu/>.

A final grade of IN (incomplete) is not normally given in this course except, again, under the most extraordinary and documented circumstances. You must contact me within 48 hours before the scheduled day/time of the final exam and complete a Contract to Resolve an Incomplete Grade. Otherwise, I will average your laboratory, exam, and participation grades and record what you have earned.

For the most up to date Pass / No Credit Policy, please check the following link for details: <https://hunter.cuny.edu/students/registration/register-for-classes/credit-no-credit/>

As per CUNY policy, an **Unofficial Withdraw (WU)** is assigned to students who attended a minimum of one class and cease attendance at some point in the semester. It is important to understand the definition of a WU and the difference between this grade and an F grade. The conditions for assigning the WU grade include:

1. A student's enrollment has been verified by the course instructor, and
2. The student has severed all ties with the course at any time before the final exam week and, consequently, has failed to complete enough course work -- as specified in the course syllabus -- to earn a letter grade, and
3. The student has not officially withdrawn from the course by completing the process for a W grade, or made arrangements to receive an INC.



### **Course Expectations**

**Lab Attendance:** You are expected to attend every lab on time, and be prepared for the class. Come to class prepared. This means you are expected to have read the laboratory exercise listed for each class *prior* to the beginning of that class period and also have all materials printed out or have the book present in class. Laboratory exercises are complex, and if you do not read them before class you will have difficulty turning them in on time.

**Lab Assignments:** Some of the laboratory exercises will be completed after class hours. As outlined in the syllabus, you are required to complete one laboratory approximately every 2-4 classes, and since the laboratory exercises will count for 40% of your total course grade, it is important for you to do the assigned work.

For each lab you will type up a conclusion which summarizes the main concepts gone over in the lab. You will submit this along with your lab activities at the beginning of the next lab class before we move on to the next lab (except for Lab which will be due along with Lab 7). You will create a front cover for your lab with your name, class, Lab # and title and an introduction to the topic/lab, the last page will be the conclusion/summary page. Do not copy. Use your own voice and words. Grading of your laboratory exercises will be based on the quality and accuracy of the observations, explanations, answers to questions and conclusions.

I will grade you on a scale of 0 – 100. You will automatically lose points if your laboratory exercise is sloppy or if your answers lack clarity.

If I cannot read your answers, you will receive a zero for the assignment.

### **When are lab exercises due?**

Lab exercises are due, in lab, at the beginning of your next class meeting – when you start the next lab (see tentative schedule below – and updated on Bb). **There is a 20% deduction per day if the lab is late.** Submitting the lab after the start of class on the same day it is due is considered late as well and will be subjected to a small penalty. This policy will be strictly enforced. If you miss a class session, do not wait until the next meeting to hand in your lab assignment. If I am not available to accept your late lab, please send me pictures of each completed lab page showing me it is complete. This will “stop the clock,” and bring your lab to the next class.

**Inclement Weather and other unknowns:** If circumstances prevent me, the professor, from being able to get to class, I will do my best to let you know in a timely manner. Please let me know if you experience circumstances that make completing the requirements challenging.

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| <b>Geology 10100</b> |               |  |
|----------------------|---------------|--|
|                      | <b>Date</b>   | <b>Lab schedule</b>                                    |
| 1                    | 29-Aug        | Introduction   |
| 2                    | 31-Aug        | Lab 1 - Filling your Geoscience Toolbox                |
| 3                    | 5-Sep         | Lab 1 - con't  |
| 4                    | 7-Sep         | Lab 2 – Plate Tectonics and the Origin of Magma        |
| 5                    | 12-Sep        | Lab 2 – con't  |
| <b>6</b>             | <b>14-Sep</b> | <b>Lab Quiz #1 - Introduction</b>                      |
| 7                    | 19-Sep        | Lab 3 – Mineral Properties, Identification, and Uses   |
| 8                    | 21-Sep        | Lab 3 – con't  |
| 9                    | 26-Sep        | Lab 3 – con't  |
| <b>10</b>            | <b>28-Sep</b> | <b>Lab Quiz #2 - Minerals</b>                          |
| 11                   | 3-Oct         | Lab 4 - The Rock Cycle - asynchronous session          |
| 12                   | 5-Oct         | Self guided field trip to Central Park                 |
| x                    | 10-Oct        | Hunter is closed - No class                            |
| 13                   | 12-Oct        | Visit to the AMNH "Minerals" and Fossil Halls          |
| 14                   | 17-Oct        | Lab 5 – Igneous Rocks and Processes                    |
| 15                   | 19-Oct        | Lab 5 – Igneous Rocks and Processes                    |
| 16                   | 24-Oct        | Lab 5 – Igneous Rocks and Processes                    |
| 17                   | 26-Oct        | Lab 6 – Sedimentary Processes, Rocks, and Environments |
| 18                   | 31-Oct        | Lab 6 – con't (not due until 11/7)                     |
| 19                   | 2-Nov         | Lab 7 – Metamorphic Rocks, Processes, and Resources    |
| <b>20</b>            | <b>7-Nov</b>  | <b>Lab Quiz #3 - Rocks</b>                             |
| 21                   | 9-Nov         | Lab 8 – Dating of Rocks, Fossils, and Geologic Events  |
| 22                   | 14-Nov        | Lab 8 – con't  |
| 23                   | 16-Nov        | Lab 8 – con't  |
| 24                   | 21-Nov        | Lab 16 – Earthquake Hazards and Human Risks            |
| x                    | 23-Nov        | Hunter is closed - No class                            |
| 25                   | 28-Nov        | Lab 16 – con't   |
| 26                   | 30-Nov        | Final discussions - Geology and its impact on "us"     |
| 27                   | 5-Dec         | Final discussions - con't                              |
| <b>28</b>            | <b>7-Dec</b>  | <b>Lab Quiz #4</b>                                     |

**Syllabus Policy:** The professor may change the schedule during the semester if warranted. All changes will be announced via BB. Except for changes that substantially affect grading, this syllabus is a guide for the course and is subject to change with advance notice.



## Hunter Policies

**Hunter College Policy 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 the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

**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 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.

### **CUNY Policy on Sexual Misconduct Link:**

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

**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)

**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 or 212-650-3262) or Colleen Barry (colleen.barr7@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

