

Geology 10100-W01 (53819): Introduction to Geology Lab
WINTER 2018
M, T, W, TH 5:00 – 8:08pm
Hunter North 1021

Instructor: Dr. Faye F. Melas
Office: 1032 Hunter North (10th floor of the North Building)
Office hours: Tuesday and Thursday, 8:10 to 9:00 pm; or by appointment
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Required Lab Manual: *AGI Laboratory Manual in Physical Geology*, 10/E ed. Richard M. Busch, ISBN-10: 0321689577 ISBN

In addition, all slides and materials used for class will be posted on blackboard prior to the class, under "Course materials". Students are required to print and read the materials prior to coming to class.

Course description: GEOL 101, Introductory Geology Lab, is a hands-on laboratory science course. It involves a series of activities designed to enhance in-depth learning of select topics in geology. Students learn to identify select minerals and rocks, interpret maps, and understand earth processes through observation, measurement, and data analysis. 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 fulfills the Common Core Requirement for category C, Life and Physical Sciences.

Course Objectives: The objective of this course is to introduce students to the major Earth features, materials, structures and processes.

Upon successful completion of this course, the students will be able to:

- Demonstrate mastery of basic lab skills through the use of the scientific method
- present observations, measurements, interpretations and conclusions in formal laboratory write-ups
- Identify select minerals and rocks
- Infer rock and mineral origin from examination of hand-specimens

- Understand “The Rock Cycle” and how it relates to tectonic processes which operate in the crust
- Understand how the Earth formed and how it continues to evolve through time
- Understand the basic concepts of plate tectonics and the evolution of the continents and ocean basins
- Understand the development of the Geologic Time Scale and reproduce its chronological sequence with approximate dates for the Eras, Periods, and Epochs
- Understand the costs, benefits and consequences of the extraction of economically valuable earth resources
- Appreciate and understand the geological world around them, and be able to communicate their geologic knowledge to others

Expected Student Outcomes: Upon completion of the course, the students will have the following outcomes:

- Basic knowledge of geologic processes such as plate tectonics, the rock cycle, and the stratigraphic record
- Identify and classify geologic materials such as minerals, rocks, landforms and geologic structures
- Perform basic types of geologic analysis using the scientific method of maps, remote sensing data, seismic data, cross sections and stratigraphic correlations
- Visualize and comprehend 3-D geologic structures
- Prepare formal lab reports and oral presentations of observations, explorations and unbiased interpretations both alone and collaboratively

Grading procedure for Introduction to Geology lab 101:

I. Course evaluation/grading:

Assignments	Weighting
8 labs labs will be provided in class.	54% (6.75% each: Instructions on how to complete the
3 practical exams	36% (12% each)
Attendance and participation	10%

The university rules concerning grading will be strictly followed. The CUNY grading policy can be found at “<http://catalog.hunter.cuny.edu/>”

Extra credit will not be offered in this course.

Credit/no credit: The only students who will be eligible for CR/NC at the end of the semester are those who have completed all of the course requirements including all quizzes/exams **AND** the final exam. You may file for CR/NC no later than 15 minutes prior to the start of exam 3 (the final exam). Keep in mind that the Hunter College rules apply. For more information or to determine if you qualify for CR/NC, you may want to visit the following URL before you make your decision:

<http://www.hunter.cuny.edu/advising/how-to/file-credit-no-credit-cr-nc>

"Incomplete Work in Course: Incompletes for this course are only given under the most extraordinary and documented circumstances. When a student **FOR VALID REASON (S)** does not complete the work assigned in a course (including the final exam, papers, etc.) and in the view of the instructor still has a reasonable chance to pass the course, the student shall be given the grade IN (incomplete). The student must explain the reason to the instructor or, in the absence of the instructor, to the department chair and arrange a schedule for making up the missing course work. These steps must be taken as soon as possible and no later than the end of the second week of the following semester. The student shall then be given the opportunity to complete the course without penalty beyond previously established penalties for lateness." Students averaging "C" or above are eligible to request an incomplete grade.

I do not give incompletes (IN), except under the most extraordinary and documented circumstances. However, if you do request an IN, you must contact me no later than 48 hours after the final exam (January 24). You will make arrangements to meet with me, face-to-face, and complete a contract to resolve an incomplete grade. No contract? No IN.

Attendance: Lab attendance is **required!!!** A maximum of one absence is allowed without any consequences on the student's grade. Each additional laboratory absence will result in the reduction of the student's average grade by 3 points.

Classroom policies: There is no texting permitted in the classroom—turn your phones off. Earphones are not to be worn in the classroom. No electronic devices are allowed during exams.

Hunter College Policies for 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.

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 Accessibility, 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.

- 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 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.

First day of classes: Tuesday, January 2, 2017. Last day of classes: Tuesday, January 23, 2017

Course Schedule, Topic Outline and Exams

Date(s)	Topic/Activity
January 2	Introduction, materials/responsibilities, seating/lab partners
January 2	Lab 1: Observing and Measuring Earth Materials and Processes
January 3, 4	Lab 2: , Plate Tectonics and the Origin of Magma
January 8, 9, 10	Lab 3: Mineral Properties, Uses, and Identification
January 11 (first half)	Mineral practical (Exam 1)
January 11 (second half)	Lab 4, Rock-Forming Processes and the Rock Cycle
January 16	Lab 5, Igneous Rocks and Volcanic Hazards
January 17	Lab 6, Sedimentary Rocks, Processes, and Environments
January 18	Lab 7, Metamorphic Rocks, Process, and Resources
January 22 (last half)	Rock practical (Exam 2)
January 22 (second half)	Lab 8 – Dating of Rocks, Fossils and Geologic Events
January 23	Final Exam (Exam 3)

** This schedule may be altered slightly during the course of the semester.