

Geology 10100-2L01 (2455)
Introduction to Geology Lab
SUMMER 2017
Monday & Wednesday 6:40 – 9:48pm (June 1- July13)
Hunter North 1021

Instructor: Dr. Faye F. Melas
Office: 1032 Hunter North (10th floor of the North Building)
Office hours: Tuesday and Thursday, 8:15 to 9:00 pm; or by appointment
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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 will fulfill 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 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
- Identify and classify geologic materials such as minerals, rocks, landforms and geologic structures
- Perform basic types of geologic analysis, including maps, cross sections and stratigraphic correlations
- Visualize and comprehend 3-D geologic structures
- Prepare lab reports and oral presentations

Grading procedure for Introduction to Geology lab 101:

I. Course evaluation/grading:

Assignments	Weighting
8 labs	40% (5% each: Instructions on how to complete the labs will be provided)
3 practical exams	30% (15% each)
Group Assignment	20% (Instructions on the group assignment will be provided)
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/>"

****Under no circumstances will a student be allowed "extra credit" to raise his/her grade.

Credit/no credit: You may file for CR/NC before the start of 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.

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.

Group Assignment: Each group (lab partners) will prepare a 5 minute oral and visual presentation for the class based on the Museum of Natural History field trip (TBA). Presentations can be made using PowerPoint or Prezi. Some suggestions include but are not limited to:

- A) Highlights of a specific exhibit
- B) Exhibit you liked most and why
- C) Short guide to a specific exhibit

A list of AMNH exhibits will be distributed along with an explanation of what is expected. Keep in mind that each partner expected to contribute equally to the project. All students in a group will receive the same grade.

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.

First day of classes: Monday, February 1, 2016. Last day of classes: Monday May 16, 2016

To keep yourself informed with important days such as Holidays/Other non-meeting dates/Days when classes follow a different schedule, please consult the Hunter College academic calendar found using the following URL:

[“http://www.hunter.cuny.edu/onestop/repository/files/registrar/Academic%20Calendar%20Fall%202013.pdf”](http://www.hunter.cuny.edu/onestop/repository/files/registrar/Academic%20Calendar%20Fall%202013.pdf)

Course Schedule, Topic Outline and Exams

Date(s)	Topic/Activity
June 5	Introduction, materials/responsibilities, seating/lab partners Lab 1, Observing and measuring earth materials and processes
June 7, 12	Lab 2, Plate Tectonics and the Origin of Magma
June 14, 19, 21	Lab 3: Mineral Properties, Uses, and Identification Mineral practical (Exam 1)
June 26, 28	Lab 4, Rock-Forming Processes and the Rock Cycle Lab 5, Igneous Rocks and Volcanic Hazards
July 3	Lab 6, Sedimentary Rocks, Processes, and Environments
July 5	Lab 7, Metamorphic Rocks, Process, and Resources Rock practical (Exam 2)
July 10	Lab 8 – Dating of Rocks, Fossils and Geologic Events
July 12	Group Presentations

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