GEOL 10100-07 - Introductory Geology Laboratory Syllabus

(Updated for Distance learning after 3/11/2020)

Section #7: Tuesday and Friday: 11.10 am to 12.25pm Spring 2020

Instructor: Dr. Shruti Philips

E-mail: shruti.philips@hunter.cuny.edu (communications to me must have GEOL 101 in the subject line and

you must sign your full name as it appears in CUNYFirst

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.

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 with respect to geologic time and the rate of geologic processes.

Required textbook:

 Laboratory Manual in Physical Geology, By AGI American Geological Institute, NAGT - National Association of Geoscience Teachers, Vincent Cronin, Dennis G. Tasa, Pearson, 11/e, 2018 ISBN-13: 978-0-13-444660-8

http://hunter.textbookx.com/institutional/index.php?action=browse#books/2098985/

Class meetings and lab exercises:

- All remaining class meetings will be conducted through Blackboard Collaborate Ultra.
- You will complete the **lab exercises in the lab manual** for each lab and submit it via **e-mail** (as a **word document** or as **answered in the lab manual**) with an **introduction and conclusion in your own words.**
- You will log into Pearson's My Lab and Mastering via Blackboard and complete some questions for each lab.
 These will be graded.
- You will prepare a two page research paper on 'The Geology of New York' or a topic of your choice related to
 "geology" and submit it to me as a word document via e-mail. If you are going to choose a topic other than 'the
 Geology of New York', you must get my approval before hand.
- 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**.
- Course evaluation has changed a little because I am unable to give the lab practical tests, take you on a field trip to Central Park and have the group presentation. The new grading plan is shown below:

• Assignments Weighting

o 8 labs 40% (5% each)

My Lab & Mastering
 40% (labs 3, 4, 5, 6, 7, 8)

Participation
 10% (in-class and on Blackboard Collaborate)

Research Paper
 10% (in-lieu of Field Trip report and Group Presentation)

Lab Title	Questions to be completed and e-mailed to me	Due date for lab exercises <u>and</u> Pearson Mastering assignments
Lab-3 Minerals	3.1, 3.2, 3.4, 3.5, 3.6	Thursday, April 2nd
Lab-4 The Rock Cycle	4.1, 4.2, 4.3, 4.4, 4.5	Thursday April 2nd
Lab-5 Igneous Rocks	5.1, 5.2, 5.4, 5.8	Monday, April 6th
Lab-6 Sedimentary Rocks	6.1, 6.2, 6.5, 6.7, 6.8, 6.9	Tuesday, April 21st
Lab-7 Metamorphic Rocks	7,1, 7.2, 7.3, 7.5	Friday May 1st
Geology of New York or other topic	Research paper	Tuesday, May5th
Lab-8 Geologic Time	8.1, 8.2, 8.3, 8.4, 8.5, 8.6,	Tuesday, May 12th

Tentative Syllabus Schedule for Spring 2020

Dates	Laboratory Assignment
T 1/28	Introduction to AGI lab manual, materials, and methods
F 1/31	Lab 1- Filling your Geoscience Toolbox
T 2/4	Lab-1
F 2/7	Lab-1
T 2/11	Lab 1 due; Lab 2- Plate Tectonics
F 2/14	Lab-2
T 2/18	Lab-2
F 2/21	Lab-2
T 2/25	Lab 2 due; Lab 3, Mineral Properties, Uses, and Identification
F 2/28	Lab-3
Т 3/3	Lab-3
F 3/ 6	Lab-3
T 3/10	Lab-3 Review of minerals + Mastering Assignment due on 4/2
F 3/13, T 3/17	NO CLASS CUNY COVID-19 RECESS
F 3/ 20	Lab 4 The Rock Cycle + Mastering Assignment due on 4/2
T 3/24	Lab-5 Igneous Rocks and Processes
F 3/27	NO CLASS CUNY RECALIBERATION RECESS
T 3/31	NO CLASS CUNY RECALIBERATION RECESS
F 4/ 3	Lab-5 Igneous Rocks and Processes+ Mastering Assignment due on 4/6
Т 4/7	NO CLASS Wednesday Schedule at Hunter
F 4/10	NO CLASS SPRING BREAK
T 4/14	Lab-6 Sedimentary Environments
F 4/17	Lab-6 contd.
T 4/21	Lab-6 + Mastering assignment due
F 4/24	Lab 7- Metamorphic Rocks, Process, and Resources
T 4/27	Lab 7- contd.
F 5/1	Lab 7 + Mastering Assignment due
T 5/5	Lab 8 – Dating of Rocks, Fossils and Geologic Events Research paper due
F 5/ 8	Lab 8 – contd.
T 5/12	Lab 8 + Mastering Assignment due
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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 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 (itrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (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

New Policy: Credit/No Credit Grading

Recognizing the difficulty in transitioning to remote learning, CUNY has now created a new Credit/No Credit grading policy for the Spring 2020 semester. Students will have **twenty days after receiving their letter grade to switch to a Credit/No Credit grade.** This policy will override all program-level grading policies currently in effect at CUNY institutions, including those related to courses within the major, pre-requisite courses, honors courses and maximum number of credits that a student can earn with Credit/No Credit grades. This policy will go into effect **April 1**, pending approval by the CUNY Board of Trustees. We will have additional information about the impact of CR/NC on their financial aid and academic progress.

Resources for Students

Hunter has instituted a **long-term laptop loan program.** If you are a student in need of a laptop, <u>please</u> <u>request one here.</u> We are distributing laptops on campus in a limited way, but are moving to mailing students technology where possible. In-home broadband access is also available for free to CUNY students. Please visit the <u>CUNY Continuity For Students</u> website for more information.

In addition, we encourage students to apply for a grant from the **Coronavirus Emergency Assistance Fund** if they have unexpected expenses related to the current crisis. Students can <u>apply here.</u>

As a result of the closing of the Brookdale campus, we are consolidating **Hunter's two food pantries** and adjusting the hours on an ongoing basis to best meet student demand. The 68th Street location remains open for limited hours. Please check the <u>Food Pantry website</u> before you visit.