

Brooklyn College

EESC 2100: Mineralogy

Fall 2011

GENERAL INFORMATION

Instructor:	Wayne Powell		
Office:	Ingersoll 4221/3137		
Phone:	x5416		
Email:	wpowell@brooklyn.cuny.edu		
Fieldtrips:	Sterling Hill Mine, Ogdensburg NJ: Required, Sunday, November 6 NEIGC: Optional, September 30 – October 2		
Textbooks:	Mineralogy, Second Edition. Perkins, 2002, Prentice Hall. Introduction to Optical Mineralogy, Fourth Edition. Nesse, 2004, Oxford University Press		
Assessment:	Quizzes	10%	
	Lecture Midterm	10%	(Mon Oct 27)
	Lab Midterm	10%	(Wed Oct 19)
	Term Project	20%	(Mon Dec 12)
	Lecture Exam	20%	(Mon Dec 19, 3:30-5:30)
	Lab Exam	30%	(Wed Dec 14)

Extra credit may be earned by participation in optional field trips or approved departmental seminars (1 pt each), and by satisfactory volunteer work associated with the mineral collection at the American Museum of Natural History (5 pts).

Absence for quizzes and midterms will result in a grade of zero for the missed assessment, unless prior arrangements have been made with the instructor. Academic dishonesty will result in a grade of zero for the assessment during which the incident occurred.

LEARNING OBJECTIVES

1. Students will be able to identify common rock-forming minerals in hand-sample
2. Students will be able to determine unknown minerals in hand-sample based upon physical properties and the use of reference tables
3. Students will be able to identify common rock-forming minerals in thin-section
4. Students will be able to determine unknown minerals in thin-section based upon optical properties and the use of reference tables
5. Students will be able to correlate physical properties of minerals with their crystal structure
6. Students will be able to correlate optical properties of minerals with their crystal structure
7. Students will be able to associate common mineral assemblages with general families of rocks (sedimentary, igneous, metamorphic, hydrothermal)
8. Students will be able to describe the applications and hazards associated with common minerals

Wk	Lecture	Lab
1	Introduction to Light, Polarized Light, Refractive Index	Optical Properties and the Polarized Light Microscope (Part 1)
2	Cross Polarized Light and Interference	Optical Properties and the Polarized Light Microscope (Part 2)
3	Essential Principles of Chemistry	Common Minerals in Clastic Sedimentary Rocks
	Quiz: Optics	Quiz: Optical Properties
4	Ionic Coordination and Silicate Structures	Common Minerals in Chemical Sedimentary Rocks
5	Symmetry	Common Minerals in Felsic Igneous Rocks
	Quiz: Mineral Chemistry	Quiz: Minerals in Sedimentary Rocks
6	Analytical Methods in Mineralogy	Common Minerals in Mafic Igneous Rocks
7	Lecture Midterm Exam	Midterm Lab Exam
8	Photoshop Primer	Common Minerals in Metapelitic Rocks
9	Minerals and Igneous Rocks	Common Minerals in Metabasalts and Marbles
10	Minerals and Sedimentary Rocks	Common Ore Minerals
		Quiz: Minerals in Metamorphic Rocks
11	Minerals and Metamorphic Rocks	Open Lab Session for Term Project
12	Minerals and Hydrothermal Systems	Open Lab Session for Term Project
13	Open Lab Session for Term Project	PLM Asbestos Analysis
14	Minerals and Health	Final Lab Exam
	Term Project Due	

CUNY POLICY ON ACADEMIC INTEGRITY

Academic Dishonesty is prohibited in the City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion.

Definitions and Examples of Academic Dishonesty

Cheating is the unauthorized use or attempted use of material, information, notes, study aids, devices or communication during an academic exercise. The following are some examples of cheating, but by no means is it an exhaustive list:

- Copying from another student during an examination or allowing another to copy your work.
- Unauthorized collaboration on a take home assignment or examination.
- Using notes during a closed book examination.
- Taking an examination for another student, or asking or allowing another student to take an examination for you.
- Changing a graded exam and returning it for more credit.
- Submitting substantial portions of the same paper to more than one course without consulting with each instructor.
- Preparing answers or writing notes in a blue book (exam booklet) before an examination. Allowing others to research and write assigned papers or do assigned projects, including use of commercial term paper services.
- Giving assistance to acts of academic misconduct/dishonesty.
- Fabricating data (all or in part).
- Submitting someone else's work as your own.
- Unauthorized use during an examination of any electronic devices such as cell phones, palm pilots, computers or other technologies to retrieve or send information.

Plagiarism is the act of presenting another person's ideas, research or writings as your own. The following are some examples of plagiarism, but by no means is it an exhaustive list:

- Copying another person's actual works without the use of quotation marks and footnotes attributing the words to their source.
- Presenting another person's ideas or theories in your own words without acknowledging the source.
- Using information that is not common knowledge without acknowledging the source.
- Failing to Acknowledge collaborators on homework and laboratory assignments.

Internet plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the internet without citing the source, and "cutting & pasting" from various sources without proper attribution.