

## Mineralogy Lab

Professor Jeremy Delaney  
Teaching Assistant: Alissa Henza  
e-mail: ahenza@rci.rutgers.edu  
Office: 239 B Wright-Rieman Labs

Lab #	Date	Subject
1	Sept 10	Bonding, Coordination Number, and Structures
2	Sept 17	Symmetry Elements, Interfacial Angles, Axial Ratios
3	Sept 24	Intro to the Petrographic Microscope
4	Oct 1	Properties of Minerals in Cross Polars
5	Oct 8	Introduction to Uniaxial and Biaxial Minerals
6	Oct 15	Chemical Analyses, Structural Formulas
7	Oct 22	Electron Microprobe
8	Oct 29	American Museum of Natural History Exercise
9	Nov 5	Nesosilicates (Orthosilicates)
10	Nov 12	Inosilicates
11	Nov 19	Phyllosilicates, Sorosilicates, and Cyclosilicates
12	Nov 26	Tectosilicates
13	Dec 3	Non-silicates
14	Dec 12	Biom mineralization (?)/ Lab Final

**Required Texts:** Manual of Mineral Science by Cornelius Klein (22<sup>nd</sup> edition)  
Introduction to Optical Mineralogy by William Nesse

**Grading Policy:** Lab is 33% of your Mineralogy grade. This 33% is made up of:  
Labs: 70%  
Quizzes: 5%  
Final Exam: 25%

**Office Hours:** I am here every day between roughly 10 and 4. Feel free to hunt me down if you have questions. If you would like to make an appointment, please e-mail or talk to me and we will arrange a time that is convenient for you.

A few words on Mineralogy and this lab:

1. Mineralogy is a subject that is best learned in the lab. While lab attendance is not required, the only way you will truly understand the material is to come to the labs and do the work. Sometimes you may have to come in outside the regular lab time to complete the labs. I will do my best to be available for help whenever it is needed.
2. Since the class is small, labs will be an informal affair. I will likely give a small lecture to review some of the material at the beginning of lab, but after that you are on your own. I

encourage you to work with your classmates on the labs. Sometimes people learn more over a friendly debate as to the right answer than just asking for help.

3. Labs will be due the Monday after they are assigned at the end of the lab period. Grade deductions (-10 points per day) will be made for late labs. If a circumstance arises that prevents you from completing your lab, contact me or come see me immediately. I can't help you if I don't know what is going on.

4. In response to comments from last year's Mineralogy class, I will be giving occasional quizzes throughout the semester. These quizzes are intended to keep lab material fresh in your minds so studying for the final will be easier. They are only worth a small part of your grade and are not intended to make you panic.

5. Sometimes the Internet can be your personal study buddy. Anyone and everyone has a website, including lots of mineral societies and enthusiasts. Here are a couple of useful Mineralogy websites:

<http://www.webmineral.com/>

Info on Crystallography, Compositions, Determinative Mineralogy with lots of pictures

<http://www.minsocam.org/>

This is the Mineralogical Society of America's official website. Here you can find an online version of the Handbook of Mineralogy Vol II: Silicates, which gives info on all silicate minerals and a Mineral Crystal Structural Database.

Also, the CD that comes with your book has a lot of useful information on it. Since you already paid for it, you might as well take a look at it.