**Introduction to Mineralogy**

Earth Sciences 202

Section: D100

Term: 2009 Fall

Instructor: Kevin Cameron

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Discussion Topics: Course Outline:

Since minerals are the basic building blocks of earth materials, this course is designed to give the student a fundamental background in minerals, necessary to understand earth materials. Introduction to Mineralogy will examine the physical and chemical characteristics of the main rock-forming and economic minerals. Lectures will cover the principles of symmetry, mineral chemistry, and mineral-forming environments. Laboratory exercises will deal with basic mineral identification. Students must provide their own handlens and mineral identification kits.

Course Topics:

1. Basic crystallography; including elements of symmetry, atomic order, and stereographic projection.

2. Physical and chemical properties of minerals; methods of mineral identification.

3. Characteristics of the main silicate and non-silicate mineral groups; mineral associations and paragenesis; basic phase equilibria.

4. Economic interest and scientific application of minerals.

Grading: Laboratory Mid-terms (2) 10% each

Final Lab Test 20%

Lecture Mid-term 20%

Final Lecture Exam 40%

**Introduction to Mineralogy**

Required Texts: Nesse, William D., Introduction to Mineralogy, 2000.  Oxford University Press ISBN 0-19-510691-1 (This text is also used for EASC 205.)

(*You should also have a mineral identification "handbook" and a Geological dictionary.)

Recommended Texts: None.

Materials/Supplies: A 10X magnifying lens should be brought to labs.

Prerequisite/Corequisite: Prerequisites: EASC 101 and CHEM 121.

Notes: None.