

## OSC027 – MINERALOGY WITH LAB

<b>Credit Hours:</b> 4 Semester Hours
<b>Co-requisite or Pre-requisite:</b> General Chemistry I (OSC008)
<b>Pre-requisite:</b> Physical Geology with Lab (OSC025) or an equivalent course
<b>Suggested Textbook Topics:</b> Atomic structure and bonding, Crystallography, Crystal chemistry, and Systematic mineralogy.
<b>Related TAG:</b> Geology
<b>General Course Description:</b> Occurrence, associations, characteristics, crystallography and crystal chemistry of common minerals. Laboratory identification emphasizing physical properties.
<b>A minimum of 70% of the Student Learning Outcomes, including an essential outcome marked with an asterisk (*), must be met.</b>
Students will be able to:
1. Demonstrate an understanding of physical properties and classification of minerals and mineral systems and their relevance to society.*
2. Demonstrate an understanding of atomic structure and bonding.
3. Demonstrate an understanding of basic crystal chemistry and crystallography.
4. Interpret phase diagrams and mineral stability.
5. Identify mineral associations relative to their geological environment.
<b>Lab Course Learning Outcome:</b>
6. Develop skills in optical microscopy and/or other instrumentation through observation of physical geological materials.
7. Identify and classify minerals and mineral groups.*
8. Demonstrate proper and safe use of experimental techniques and tools/instruments.

**GEOLOGY TAG: MINERALOGY WITH LAB TAG COURSE**  
**FACULTY PARTICIPANTS**  
**September 2016 - April 2017**

<b>Name</b>	<b>Institution</b>
David Miller (Revision/Review Lead)	Clark State Community College
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