A. Course Description

Credits: 5

Prerequisites: CHEM 231 Organic Chemistry I

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: Goal 03 - Natural Science , Goal LS - Upper Division Liberal Studies

This course is intended for Chemistry majors and minors; this course contributes to Category 2 electives for the Chemistry major. Topics include chemistry of the main group and transition metals; structure, physical and chemical properties, synthesis, and spectroscopy. Includes 3 credits dedicated to lecture and 2 credits to lab.

B. Course Effective Dates: 05/09/2015 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Describe different geometries available for metal-containing complexes.
2. Understand the factors contributing to different modes of bonding for inorganic compounds.
3. Describe reaction mechanisms for inorganic compounds.
4. Understand the methods of analyzing inorganic compounds.
5. Describe how the properties of inorganic compounds contribute to topics in material science.

E. Learning Outcomes (MN Transfer Curriculum)

Goal 03 - Natural Science
1. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
2. Demonstrate understanding of scientific theories.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Goal LS - Upper Division Liberal Studies
None

G. Special Information

Note: First day attendance required except by instructor permission.