

## CH 332 : Advanced Inorganic Chemistry

This course presents an overview of the physical/theoretical aspects relating to transition metal and main group chemistry, with emphasis on bonding, structure, thermodynamics, kinetics and mechanisms, and periodic relationships. Atomic structure, theories of bonding, symmetry, molecular shapes (point groups), crystal geometries, acid-base theories, survey of familiar elements, solid-state materials, nomenclature, crystal field theory, molecular orbital theory, isomerism, geometries, magnetic and optical phenomena, spectra, Tanabe-Sugano diagrams, synthetic methods, boron hydrides, organometallic compounds, cage structures, clusters, lanthanides, actinides. Three class hours and one three-hour laboratory periods per week.

**Credits** 4.0

### **Prerequisite Courses**

[CH 203: Organic Chemistry I](#)

### **Semester Offered**

Offered alternate years