

## **CHEM 5620 Synthetic Methods in Organic Chemistry**

### **Course Description:**

The aim of this course is to provide students with comprehensive knowledge of synthetic methods in organic chemistry and deeper understanding of factors that control reactivities and selectivities. Details including modern synthetic tools, named organic reactions, retrosynthetic analysis and applications in natural product synthesis will be discussed.

### **Main Course Outline (for reference only):**

- Basic organic reactions
- Oxidation
- Reduction
- Olefination
- Protecting groups
- Functional groups interconversion
- Carbonyl chemistry
- Cycloaddition
- Sigmatropic rearrangement
- Organometallic reagents and special topics