

Elective Course Description (1. Fall Semester)

Subject (English)	Organic Chemistry		Semester	Fall	Day/Slot	
科目名 (日本語)	有機化学					
Course Code		Course Numbering	SCH-ORG801E		Period	Oct. - Feb.
Instructor (Post)	Eunsang Kwon (Assoc. Prof.)				Campus	
					Building	
Faculty	Faculty of Science		Credits	2	Class Room	
Class subject	Fundamentals of Organic Chemistry					
Object and summary of class						
<p>This class object is to study the fundamentals of chemical structure and bonding, organic compounds, stereochemistry, organic reactions, and molecular orbitals for organic molecules. Associate professor Eunsang Kwon will give the lecture.</p>						
Keywords	chemical bonding, structure, acids and bases, stereochemistry, organic reactions					
Goal of study						
<p>The goal of this class is to understand the basics of chemical reactions and be able to apply them to typical organic reactions. In this course, students will learn the structure and physical properties of organic molecules using a molecular modeling program on a computer system.</p>						
Contents and progress schedule of class						
<ol style="list-style-type: none"> 1. Structure and Bonding 2. Polar Covalent Bonds: Acids and Bases 3. Organic Compounds: Alkanes and Their Stereochemistry 4. Organic Compounds: Cycloalkanes and Their Stereochemistry 5. Alkenes: Structure and Reactivity 6. Alkenes: Reactions and Synthesis 7. Alkynes: An Introduction to Organic Synthesis 8. Stereochemistry 9. Organohalides 10. Reactions of Alkyl Halides: Nucleophilic Substitutions and Eliminations 11. Structure Determination: Nuclear Magnetic Resonance and Infrared Spectroscopies 12. Conjugated Compounds and Ultraviolet Spectroscopy 13. Benzene and Aromaticity 14. Chemistry of Benzene: Electrophilic Aromatic Substitution 15. Final Exam. 						
Preparation	nothing special					
Record and evaluation method	Short Test Questions 20%, Final Written Exam 80%.					
Textbook and references	Organic Chemistry, 8th ed., by John McMurry, Publisher: CENGAGE Learning, 2011 (ISBN-10: 0840054440, ISBN-13: 9780840054449, previous edition is usable).					
Self study	nothing special					
In addition						