

## Organic Chemistry 1

CREDIT	3	INSTRUCTOR	Brooks III, S. Carroll
OFFICE	N307 Baekyanggwan	OFFICE HOURS	By appointment
TIME	09:00 ~ 10:40	CLASSROOM LOCATION	Baekyanggwan S402
E-MAIL	<a href="mailto:brookssc@yonsei.ac.kr">brookssc@yonsei.ac.kr</a>		

### [COURSE INFORMATION]

COURSE DESCRIPTION & GOALS	This course focuses on carbon-based chemistry, with an emphasis on understanding the structural nature of organic molecules and how that knowledge can help with the prediction of physical and chemical properties of compounds. The material is organized into families of organic molecules and includes alkanes, cycloalkanes, alkenes, alkadienes, alkynes, alcohols, alkyl halides, allylic systems, and arenes. The basics of reaction mechanisms are introduced and include the free radical halogenation of alkanes, nucleophilic substitution, and elimination.
PREREQUISITE	General Chemistry I and II
COURSE REQUIREMENTS	Students should arrive a few minutes early to class each day with their cell phones turned off and a pen or pencil and paper or printed out copy of the PowerPoint course material. Successful students will incorporate readings from the text, participation in class, in-chapter problems, end-of-chapter problems, the textbook website resources, and independent study outside of class.
GRADING POLICY	Attendance 10%, Participation 10%, Midterm Assessment 40%, Final Assessment 40%.
TEXTS & NOTES	Organic Chemistry, 10th edition, Carey and Giuliano
INSTRUCTOR'S PROFILE	Ph.D. Cornell University B.A. Wayne State University Associate Professor Department of Life Science and Biotechnology and Underwood International College

### [WEEKLY SCHEDULE]

WEEK (PERIOD)	WEEKLY TOPIC & CONTENTS	COURSE MATERIAL & ASSIGNMENTS	REFERENCE
1	CHAPTER 1 Structure Determines Properties CHAPTER 2 Alkanes and Cycloalkanes: Introduction to Hydrocarbons		
2	CHAPTER 3 Alkanes and Cycloalkanes: Conformations and cis-trans Stereoisomers CHAPTER 4 Chirality		
3	CHAPTER 5 Alcohols and Alkyl Halides: Introduction to Reaction Mechanisms CHAPTER 6 Nucleophilic Substitution	Midterm Exam	
4	CHAPTER 7 Structure and Preparation of Alkenes: Elimination Reactions CHAPTER 8 Addition Reactions of Alkenes		
5	CHAPTER 9 Alkynes CHAPTER 10 Introduction to Free Radicals		
6	CHAPTER 11 Conjugation in Alkadienes and Allylic Systems CHAPTER 12 Arenes and Aromaticity	Final Exam	