

國立中正大學大學部 115 學年度第 1 學期

編號：2602201\_01

授課教師：洪伯誠教授

科目名稱：有機化學（一）

英文譯名：Organic Chemistry (I)

學分數：4

修別：必修

**Office Hours:** Wednesday 2:00 pm-3:00 pm or by appointment.

**Lecture Text:** T.W. Graham Solomons, Craig B. Fryhle, Scott A. Snyder, *Organic Chemistry*, 12th ed, Wiley, 2016.

**References:**

- (1) 天然有機化合物漫談 藝軒圖書 洪伯誠編著
- (2) 有機化學 藝軒圖書 方俊民等編著
- (3) Organic Chemistry, Second Edition, Marye Anne Fox and James K. Whitesell, Jones and Bartlett Publishers, Sudbury, Massachusetts.
- (4) Organic Chemistry, William H. Brown and Christopher S. Foote, Saunders College Publishing, Orlando, Florida.
- (5) Organic Chemistry, R. J. Fessenden, J. S. Fessenden and M. W. Logue, Brooks/Cole Publishing.
- (6) Organic Chemistry, P. Y. Bruice, Prentice-Hall.
- (7) J. McMurry, Organic Chemistry, 9th Ed., Cengage Learning, Boston.

**Course Grading:** Your grade will be determined from your performance in the three areas shown below:

|                                                                               |            |
|-------------------------------------------------------------------------------|------------|
| Midterm Exam                                                                  | (50%)      |
| Final Examination                                                             | (50%)      |
| Quizzes: up to 15 bonus points based on the best 10 quiz scores               |            |
| Maximum possible score:                                                       | 115 points |
| Final grades will be calculated according to the instructor's grading policy. |            |

**Examination Schedule:**

Please note that all examinations may be held on Thursday or Tuesday.  
Be advised that make-up examinations will be given only in cases of officially approved leave.

|                   |        |          |
|-------------------|--------|----------|
| Midterm Exam      | Nov 3  | Tuesday  |
| Final Examination | Dec 31 | Thursday |

**IMPORTANT:**

(1) Any student who is unable to attend the midterm or final examination must apply for leave in accordance with university regulations. An absence without approved leave will be regarded as an unexcused absence. NO MAKE-UP EXAMINATION WILL BE GIVEN TO STUDENTS WHO HAVE NOT COMPLETED THE OFFICIAL LEAVE APPLICATION PROCEDURE.

(2) For the midterm and final examinations, if you contract COVID-19 or another infectious disease, or are otherwise unable to attend because of illness, please obtain a medical certificate issued by a regional hospital or higher-level medical institution, inform me by email as soon as possible, and submit an online application for sick leave. A special make-up examination will be arranged. However, the questions will differ from those on the original examination, and the level of difficulty will not be identical.

(3) Quizzes are considered extra-credit work; therefore, no make-up quizzes will be given for absences from regular classes or quizzes for any reason.

The topics and their ordering as provided below are only approximate. This agenda reflects an optimism which could well be tempered. Accordingly, I reserve the right to shuffle and delete topics in response to time constraints.

Ch 1. The Basics: Bonding and Molecular Structure 9/8, 9/10, 9/15

Ch 2. Families of Carbon Compounds: Functional Groups, Intermolecular Forces, and Infrared (IR) Spectroscopy 9/17, 9/22, 9/24

Ch 3. Acids and Bases: An Introduction to Organic Reactions and Their Mechanisms 9/24, 9/29, 10/1

Ch 4. Nomenclature and Conformations of Alkanes and Cycloalkanes 10/6, 10/8, 10/13, 10/15

Ch 5. Stereochemistry: Chiral Molecules 10/15, 10/20, 10/22, 10/27

Review and Catch-up 10/29

Midterm Exam 11/3

Ch 6. Nucleophilic Reactions: Properties and Substitution Reactions of Alkyl Halides 11/5, 11/10, 11/12

Ch 7. Alkenes and Alkynes I: Properties and Synthesis; Elimination Reactions of Alkyl Halides 11/17, 11/19, 11/24

Ch 8. Alkenes and Alkynes II: Addition Reactions 11/26, 12/1, 12/3

Ch 9. Nuclear Magnetic Resonance and Mass Spectrometry: Tools for Structure Determination 12/8, 12/10, 12/15, 12/17, 12/22

Ch 10. Radical Reactions 12/22, 12/24, 12/29

Final Examination 12/31