SCCH 172 Organic Chemistry (3 credit)

(Section III: EGBI and ENNM)

Academic Year 2021-2022

Class Schedule:	Thursday mornings (9:00–12.00)
Google classroom:	2021-2-SCCH172 class code: 4glep6h
Onsite	Room: TBA
	(This option depends on the situation and the university's policy.)
Online	Zoom meeting (Details in the google classroom)
Instructors:	Asst. Prof. Dr. Torsak Luanphaisarnnont (torsak.lua@mahidol.ac.th)
	Office: C418 (by appointment)

Course Description:

The class aims to understand basic organic reactions. The focus of this class includes the following topics: molecular representation, acid and bases, alkanes and cycloalkanes, stereoisomerism, chemical reactivity and mechanisms, substitution reactions, alkenes, alkynes, alcohol and phenols, aromatic compounds, aldehyde and ketones, carboxylic acids and their derivatives, enols and enolates, and amines. Real-life instances, uses, and applications of these molecules will be discussed.

Grading Policy: Course assessment will be based on the following:

Quiz/Attendance/Homework (30%)
Midterm exam (35%)
Final exam (35%)

The final grade given will be based on a letter scale (A, B^+, B, C^+, C, D^+, D, F).

References

Main reference

Klein, D. R., Organic Chemistry, Wiley, , Singapore, 2018.

Additional references

Solomons, T. W. G., Fryhle C. B., Snyder S. A. Organic Chemistry, Wiley, Singapore.
Wade, L. G. Jr. Organic Chemistry, Pearson Prentice Hall.
Clayden, J.; Greeves, N.; Warren, S.; Wothers, P. Organic Chemistry, Oxford, UK.
Or other text books on Fundamental Organic Chemistry

Tentative Class Schedule

Date	Topic
Jan 6	Review of general chemistry, molecular representations
Jan 13	Acids and bases, alkanes and cycloalkanes
Jan 20	Stereoisomerism
Jan 27	Chemical reactivity and mechanisms, substitution reactions
Feb 3	Alkene: structure and preparation, addition reactions of alkenes
Feb 10	Addition reactions of alkenes (cont.), alkynes
Feb 17	Radical reactions, synthesis, alcohol and phenols
Feb 24	Alcohol and phenols (cont.), Review
TBA	**Midterm Examination**
Mar 10	Aromatic compounds and aromatic substitution reactions
Mar 17	Aldehyde and ketones
Mar 24	Aldehyde and ketones (cont.), Carboxylic acids and their derivatives
Mar 31	Carboxylic acids and their derivatives (cont.)
Apr 7	Alpha carbon chemistry: enols and enolates
Apr 14	**Songkran holiday**
Apr 21	Alpha carbon chemistry: enols and enolates (cont.), amines
Apr 28	Amine (cont.), Review
TBA	**Final Examination**