

Organic Synthesis, CHM 4220, Cal Poly Pomona, Dr. Laurie S. Starkey
Tentative Lecture Schedule – Spring 2020 (COVID-19 Revised)

Please refer to relevant chapters (given in bold) in the Starkey textbook,
 "Introduction to Strategies for Organic Synthesis, 2nd edition."

1 1/21	Introduction Ch. 1.1 protective groups Ch. 1.2 NMR spectroscopy review	Chapter 1 Problems
2 1/28	Nucleophiles/Electrophiles, Oxidation/reduction rxns Ch. 2	Chapter 2 Problems
3 2/4	synthesis of alcohols Ch. 3.1 alkyl/aryl halides Ch. 3.2	Practice Problems: 3.1ab, 3.2
4 2/11	ethers, thiols, amines Chapter 3.3, 3.4, 3.5	Practice Problems: 3.3, 3.5
5 2/18	alkenes/Wittig reaction Chapter 3.6 alkynes and alkanes Chapter 3.7, 3.8	Practice Problems: 3.6ab, 3.7, 3.8ab
6 2/25	aldehydes and ketones Chapter 3.9 carboxylic acids/derivatives Chapter 3.10, 3.11	Practice Problems: 3.9ab, 3.10, 3.11ab
7 3/3	MIDTERM Synthetic Toolbox 1 & 2, 1-Functional Group Target Molecules (protective groups, redox, Nu:/E+, 1-group disconnections)	Chapter 3 Problems
8 3/10	1,3-dioxygenated FG pattern: aldol, Claisen Ch. 4.1, 4.2 1,5-dioxygenated: Michael reaction, Robinson Annulation Ch. 4.2	Practice Problems: 4.1ab, 4.2
9 3/17	Class Canceled due to COVID-19 (Online Course Prep)	
10 3/24	illogical disconnections (Umpolung): 1,2-dioxygenated, 1,4-dioxygenated, and 1,6-dioxygenated Chapter 4.3	Practice Problem 4.3 & Chapter 4 Problems
SPRING BREAK MARCH 28 – APRIL 5		
11 4/7	aromatic compounds: Electrophilic Ar. Sub. Chapter 5.1 diazonium salts, Nu Ar. Substitution Chapter 5.2, 5.3	Practice Problems: 5.1, 5.2 Chapter 5 Problems
12 4/14	Diels-Alder reaction & cyclic TMs Chapter 6	Chapter 6 Problems
13 4/21	stereoselectivity & asymmetric synthesis Chapter 7	Practice Problem 7.4 Chapter 7 Problems
14 4/28	transition metal-mediated reactions Chapter 8	Practice Problems: 8.1, 8.5 Chapter 8 Problems
15 5/5	Wrap-up & Review	
F 5/12	FINAL EXAM 5:00 – 6:50 pm	