

Chem 503
Modern Synthetic Organic Chemistry
Fall 2016, Tue, Thur 6:40 – 8:00 PM, Wright 260

(revised 8/23/2016)

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Texts: recommended: *Modern Methods of Organic Synthesis*, W. Carruthers and Iain Coldham, 2004; *Advanced Organic Chemistry, Part B*, F. A. Carey and R. J. Sundberg, 2008; *Strategic Application of Named Reactions*, L. Kurti and B. Czako, 2005

Grading: Hourly exam (50%) and final exam (50%)

Week - Date	Topic	Readings, pp	Other info
1 - Sept. 6, 8	Retrosynthetic analysis, mechanisms, enolates	handouts	K&C readings (see attached)
2 - Sept. 13, 15	Alkylation reactions	C&C 1-45 C&S 1-55, 183-197	Problems (see attached)
NB: Oct 21 (Friday)	<i>Princeton ACS Fall Organic Chemistry Symposium - \$45</i>	<i>Forsgate CC, Jamesburg, NJ</i>	http://www.pacsfocs.org/ SK: "highly recommended"
3 - Sept. 20, 22	Aldol reactions	C&S 63-157	
4 - Sept. 27, Sept 29	Organometallic I	C&C 45-74 C&S 619-666	
5 - Oct. 4, 6	Organometallic II	C&C 75-101 C&S 675-770	
6 - Oct. 11	Process Chemistry: Methods	handouts	Guest lecturer: Dr. Frank Gibson
7 - Oct. 18	Exam I , in class, 3 hrs	covers 1 st five weeks	WL 260
8 - Oct. 25	Process Chemistry: Examples	handouts	Guest lecturer: Dr. Frank Gibson
9 - Nov. 1, 3	Diels-Alder reaction	C&C 159-211 C&S 473-526	
10 - Nov. 8, 10	Metathesis, C=C, rings	C&C 132-154, 211-264, C&S 157-182	
11 - Nov. 15, 17	C=C functionalizations	C&C 315-367 C&S 289-357	
12 - Nov. 22, 29	Oxidation reactions	C&C 370-402 C&S 1063-1145	
Nov. 24-27	Thanksgiving Recess		
13 - Dec. 1, 6	Reduction reactions	C&C 405-454 C&S 367-461	
14 - Dec. 8, 13	TBA		
Dec. 20	Final Exam – 6-9 PM (tent.)		WL 260 (tent.)