

Chem 503
Modern Synthetic Organic Chemistry

Fall 2021: TTh 6:30 – 7:40 PM, Wright 260 (tentative)

Prof. Spencer Knapp: 321 Wright Labs, BC; spencerk@chem.rutgers.edu. 848-445-2627

Texts: *Advanced Organic Chemistry, Part B*, 5th Edition, 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%) – (syllabus revised 8/31/2021)

<u>Week - Date</u>	<u>Topic</u>	<u>C&S Readings, pp</u>	<u>Other info</u>
1/2 - Sept. 2, 7, 9	Retrosynthetic analysis, mechanisms, enolates		K&C readings (see handout) MBS readings (see handout)
3 - Sept. 14, 16	Alkylation reactions	C&S 1-55, 183-197	Problems (see handout)
4 - Sept. 21, 23	Aldol reactions	C&S 63-157	
5 - Sept. 28, 30	Organometallic I	C&S 619-666	
6 - Oct. 5, 7	Organometallic II	C&S 675-770	
7 - Oct. 14	Exam I , remote, 3 hrs	covers weeks 1-5	6:30 – 9:30 AM tentative
8 NOTE: Friday, Oct. 15	<i>Princeton ACS Fall Organic Chemistry Symposium</i>	<i>Pre-registration required</i>	10:00 AM – 4 PM http://www.pacsfocs.org/wordpress/2021-program/
9 - Oct. 26, 28	Diels-Alder reaction	C&S 473-526	
10 - Nov. 2, 4	Metathesis, C=C, rings		
11 - Nov. 9, 11	C=C functionalizations	C&S 289-357	
12 - Nov. 16, 18	Oxidation reactions	C&S 1063-1145	
13 - Nov. 25	Reduction reactions, dehydration, amidation	C&S 215-223, 252-258, 367-461	
Nov. 24 – Nov. 28	<i>Thanksgiving Recess</i>		
14 – Dec. 2	Guest lecturer: Process Chemistry	handouts	Guest lecturer: Dr. Richard Fox
15 - Dec. 9	Guest lecturer: Process Chemistry	handouts	Guest lecturer: Dr. Mukund Chorghade
Dec. 16	Final Exam – remote	Covers weeks 9-13	6:30 – 9:30 PM tentative