

Chem 7311-8311, JM Smith 400
Dr. T. Burkey
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Spring 2016, MW 5:30-6:55 PM
office 205, lab 203
678-2634

Text: Carey and Sundberg, Advanced Organic Chemistry Part A, 5th ed. ISBN 9780387683461

Prerequisite: B in 6311 or instructor permission in writing

<http://www.memphis.edu/chem/faculty-burkey/tjb-7311.php>

Reference Texts: March, Advanced Organic Chemistry
Sykes, A Guidebook to Mechanisms in Organic Chemistry
Traylor and Traylor (handout)
Streitweiser, Molecular Orbital Theory for Organic Chemists

Grading: 2 exams (1/2 grade) and final (1/4 grade), problems (1/4 grade)

weeks beginning	EX/CH	Chapter (problems)
January 18		Introduction, Holiday (Jan 18)
January 25		CH1: Chemical Bonding and Structures (1-4,7,8,11,15,17-20)
February 1		CH2: Stereochemistry, Conformation, Stereoselectivity (1-4,7-9,13,14ab,15,19-21,25-27)
February 8		CH3: Structure Effects on Stability and Reactivity (2-4a,7ac,8,10ab,11.1-4,12,13.1,15)
February 15		CH4 Nucleophilic Substitution (1,2abd-g,3-6,12ab,13abdc,16,17,21ad)
February 22		CH5. Polar Addition and Elimination Reactions (1b-e,2a-fh,3-5,7-9acd,10,12,14,16)
February 29	W 1-4	CH6. Carbanions and Other Nucleophilic Carbon Species (1-6,9a-d,10,12bc,14,16-19,21,22)
March 7		Break
March 14		CH7: Reactions of Carbonyl Compounds (2-15,19,22,24,27)
March 21		CH8 Aromaticity (CH8:2,3a,4a-dfhi,7,9,10acd;14a)
March 28		CH9 Aromatic Substitution CH9:1,2,5-8,10,14,15,18,19,21acd)
April 4	W 4-8	CH10: Concerted Reactions (1,2,4,5a-e,7a-df-i,d-k,12,13,16,17)
April 11		CH11: Free Radical Reactions (1bfj,3,5acde,6a-egh,7,8,11,14,16)
April 18		CH12: Photochemistry
April 25		
May 2	W	Final at 5:30 PM on Wednesday May 4

Homework: All homework must be submitted in a Word file. No hand written documents accepted.

Structure drawing software can be obtained at <http://www.chem.memphis.edu/facilities/facilities.htm#software>

http://www.cambridgesoft.com/Ensemble_for_Chemistry/ChemBioOffice/

<http://www.chem.memphis.edu/downloads/chembio-office-instructions.htm>

Academic Integrity and Student Conduct:

Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Judicial and Ethical Affairs (<http://saweb.memphis.edu/judicialaffairs>). Please take a look, in particular, at the sections about "Academic Dishonesty," "Student Code of Conduct and Responsibilities," and "Disruptive Behaviors." I will expect students to be aware of these guidelines and to conduct themselves accordingly.

Reasonable and appropriate accommodations will be provided to students with disabilities who present a memo from Student Disability Services (SDS).