

Chem. 131A/231A

MWF, 11-11:50 in Phelps 1508

R. D. Little

Office hour: Tuesday's from 3-4 pm in PSBN room 3649C/D and by appointment

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Review your basic organic chemistry text. **I expect** you to have an excellent grasp of the basic concepts of fundamental organic chemistry.

Required texts:

Organic Chemistry, by Clayden, Greeves, Warren, and Wothers (our primary resource) and

Advanced Organic Chemistry: Reaction Mechanisms, by R. Bruckner

... & a set of molecular models of your choice. I recommend those by Prentice-Hall – Framework Molecular Models):

A few useful web sites

... are listed below. I will add to it, or make specific reference to some of them as the quarter progresses. Have a look at them and see what wonderful resources are available to you regarding a host of topics, including, for example those listed below as “some concepts/names”.

<http://www.chem.wayne.edu/acs-organic-division/links.html>

<http://dmoz.org/Science/Chemistry/Organic/>

<http://orgchem.chem.uconn.edu/namereact/named.html>

<http://www.chem.yorku.ca/NAMED/>

http://www.geocities.com/chempen_software/reactions.htm

<http://www.chemie.fu-berlin.de/chemistry/index/org/>

Exams

Exam 1: Friday, October 11, 2002 (after the 1st six lectures)

Exam 2: Friday, November 22, 2002

Final exam: Saturday, December 14 from noon to 3 pm.

Other dates of importance

Veteran's Day: Monday, November 11

Thanksgiving: November 28-29

Instruction begins: Friday, September 27, 2002 and **ends:** Monday, December 9, 2002.

RDL will be out of town: October 23 and 25. These classes will be rescheduled. You will be notified regarding time and place.

Some concepts/names ...food for thought (-:

There are, of course, many more. These are just a few that readily come to mind. Please see the note, highlighted in yellow, which appears at the end of the list.

Curtin Hammett principle
Cahn-Ingold-Prelog
Felkin-Anh addition
Zimmerman-Traxler
Cram/anti-Cram
Hammett equation
Hammond postulate
Reactivity-selectivity principle
Arrhenius equation
Eyring equation
Kinetic and thermodynamic control
IR, MS, proton and carbon NMR – including simple 2-D techniques
Simple MO theory
FMO theory
aldol addition and condensation
Baeyer-Villiger rearrangement
Baldwin's rules
Beckmann rearrangement
Baylis-Hillman reaction
Bergman cyclization
Birch reduction
Curtius rearrangement
Robinson annelation
Claisen condensation
Dauben Shapiro reaction (Chamberlin-Bond variation)
Dess-Martin periodinane
di- π -methane reaction
oxa-di- π -methane reaction
Dieckmann condensation
Diels-Alder
Ene reaction
Friedel-Crafts acylation/alkylation
Wolff-Kischner (Huang-Minlon and Cram variations) and Clemmenson reductions
Williamson ether synthesis
Heck reaction
Keck allylation
Paterno-Büchi reaction
Reformatsky reaction
Norrish types 1 and 2 photo reactions
Michael reaction
McMurry reaction
Suzuki
Swern oxidation
Sharpless asymmetric dihydroxylation
Sharpless asymmetric epoxidation (SAE)
Stille coupling
Nozaki-Hiyama-Kishi
Little reaction (-:
electrohydrodimerization, electrohydrocyclization, and reductive cyclization
Claisen and Cope rearrangement (& anion accelerated versions)
Ireland Claisen
Enamines; enols; enol ethers; enolates

Etc, etc, etc. (-:

Please refer to your texts, the class notes, and the web sites for more.