

- Instructor:** Sukwon Hong, CRB 328, 392-6787, [sukwon@ufl.edu](mailto:sukwon@ufl.edu)
- Prerequisites:** CHM 5224 is necessary.
- Required Text:** Francis A. Carey and Richard J. Sundberg, "Advanced Organic Chemistry, Part B: Reactions and Synthesis" 5<sup>th</sup> Ed
- Reference Books and Resources**
1. Dale L. Boger, "Modern Organic Synthesis – Lecture Note" TSRI press
  2. William Carruthers and Iain Coldham, "Modern Methods of Organic Synthesis", 4<sup>th</sup> Ed.
  3. Paul Wyatt and Stuart Warren, "Organic Synthesis, Strategy and Control", Wiley 2007.
  4. Laszlo Kurti and Barbara Czako, "Strategic Applications of Named Reactions in Organic Synthesis"
  5. David Evans Group Homepage: <http://www2.lsddiv.harvard.edu/labs/evans/>
    - Advanced problems in organic chemistry
    - Evans pKa Table
  6. Leo Paquette Ed, "Encyclopedia of Reagents for Organic Synthesis," Wiley
    - Available at the Science Library Reference Section
  7. Eric N. Jacobsen Eds, "Comprehensive Asymmetric Catalysis," Vol 1-3, and Supplement 1-3, Springer
  8. Louis S. Hegedus, "Transition Metals in the Synthesis of Complex Organic Molecules," 2<sup>nd</sup> Ed.
  9. Philip J. Kocienski, "Protecting Groups", Thieme.
  10. Theodora W. Green and Peter G. M. Wuts, "Protective Groups in Organic Synthesis," 3<sup>rd</sup> Ed. Wiley
- Lecture:** MWF 8:30 – 9:20 a.m. in LEI 104
- Homework:** Homework problem sets will be posted through the course web page (E-learning). Homework problem sets will be collected and graded.
- Exams:**
- First Exam:** Two hour, closed book exam (Feb 16, MON, Time and Place: TBD)
- Second Exam:** Take home (Posted on Mar 25, WED, Due on Mar 27, FRI)
- Final Exam:** Cumulative, closed book exam (Apr 24, FRI, Time and Place: TBD)
- Grading:**
- |            |               |               |
|------------|---------------|---------------|
| Exam 1     | 100 pt (25 %) |               |
| Exam 2     | 100 pt (25 %) |               |
| Homework   | 60 pt (15 %)  |               |
| Final Exam | 140 pt (35 %) | TOTAL: 400 pt |
- Course Web Page:** <http://ss.at.ufl.edu/>  
- updated regularly with announcements, the course syllabus, problem sets, practice tests, exam answer keys, and other reference articles.
- Office Hours:** MWF 1:30 p.m. – 2:30 p.m. in CRB 328
- Course Outline:**
- I. Ch 3. Functional Group Interconversion
  - II. Ch 5 and 12. Reductions and Oxidations
  - III. Ch 1. Enolates
  - IV. Ch 2. Carbonyl compounds
  - V. Ch 7 and 8: Organometallic Chemistry
  - VI. Ch 6. Cycloadditions
  - VII. Ch 10. Carbocations, Carbenes, and Radical
  - VIII. Ch 13. Multistep Synthesis

**Instructor:** Dr. Sukwon Hong, CRB328B, sukwon@ufl.edu**E-learning:** <http://lss.at.ufl.edu/>**Text:** Francis A. Carey and Richard J. Sundberg, "Advanced Organic Chemistry, Part B: Reactions and Synthesis" 5<sup>th</sup> Ed**Lecture:** MWF 2<sup>nd</sup> period (8:30 a.m. – 9:20 a.m.) in LEI 104**Office Hours:** MWF 1:30 p.m. – 2:30 p.m. in CRB 328

MON	WED	FRI
	1/7 Introduction	1/9 Ch 3. FGI
1/12 Ch 3. Protective Groups	1/14 Ch 5. Reductions	1/16 Ch 5. Reductions
1/19 <b>M. L. King day : No Class</b>	1/21 Ch 12. Oxidations	1/23 Ch 12. Oxidations
1/26 <b>Problem Set #1</b>	1/28 Ch 1. Enolates	1/30 Ch 1. Enolates
2/2 Ch 2. Carbonyl Compounds	2/4 Ch 2. Carbonyl Compounds	2/6 Ch 2. Carbonyl Compounds
2/9 Ch 2. Carbonyl Compounds	2/11 Ch 2. Carbonyl Compounds	2/13 <b>Problem Set #2</b>
2/16 <b>FIRST EXAM</b> Ch 7. Main Group Organometallics	2/18 Ch 7. Main Group Organometallics	2/20 Ch 8. Transition Metal Organometallics
2/23 Ch 8. Transition Metal Organometallics	2/25 Ch 8. Transition Metal Organometallics	2/27 Ch 8. Transition Metal Organometallics
3/2 Ch 8. Transition Metal Organometallics	3/4 Ch 8. Transition Metal Organometallics	3/6 <b>Problem Set #3</b> Ch 6. Pericyclic Reactions
3/9 <b>Spring Break: No Class</b>	3/11 <b>Spring Break: No Class</b>	3/13 <b>Spring Break: No Class</b>
3/16 Ch 6. Pericyclic Reactions	3/18 Ch 6. Pericyclic Reactions	3/20 <b>Problem Set #4</b>
3/23 <b>ACS meeting</b>	3/25 <b>ACS Meeting</b>	3/27 <b>SECOND EXAM</b> <b>ACS meeting</b>
3/30 Ch 6. Pericyclic Reactions	4/1 Ch 6. Pericyclic Reactions	4/3 Ch 6. Pericyclic Reactions
4/6 Ch 10. Carbocations	4/8 Ch 10. Carbenes	4/10 Ch 10. Carbenes
4/13 Ch 10. Radical	4/15 Ch 10. Radical	4/17 <b>Problem Set #5</b>
4/20 Ch 13. Multistep Synthesis	4/22 Last Class Ch 13. Multistep Synthesis	4/24 <b>FINAL</b>
4/27	4/29	