

## **CHE455-Synthetic Organic Chemistry, Spring 2008**

Application and development of organic chemistry in the context of the synthesis of medicinally relevant and biologically active compounds. Total synthesis of complex organic targets: strategy, tactics and reaction mechanism.

**Visit UBLearns for announcements and class documents.**

**Classes:** T R, 11 AM – 12:20 PM, 30 lectures total.

**Place:** 222 NSC, North Campus

**Instructor:** Dr. Sherry R. Chemler

**Office hours:** NSC618, Wednesdays, 10 AM-12 noon or by appointment.

**Phone:** 645-6800 ext. 2136

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**Textbook:** Classics in Total Synthesis: Targets, Strategies, Methods by K.C. Nicolaou and E. J. Sorensen (required). This book is available in the bookstore and also on Amazon.com

### **Chemistry Resources**

Science Citation Index, electronic journals, available through the UB library website.

### **Tests and Assignments, Grading**

**Tests:** 4 80 min tests (15% each, 60% total) + cumulative final exam 15% = 75% of grade

**Homework:** 5 hand-in and graded homework (5% each, 25% of total grade); Homework is due at the start of the class on the indicated date. If the homework is handed in to me at my office or mailbox, it will not be accepted after that class is over at 12:20 PM since answer keys will be handed out in class.

<b>Date</b>	<b>Topic</b>	<b>Chapter</b>
1/15/08	Introduction to Synthesis, conformational analysis	Chap 1 and conformational analysis notes, pKa notes
1/17/08	Reserpine, DA and electrocyclic rxns	Chap 4
1/22/08	<b>Homework 1 due</b> Reserpine and Endiandric acid	Chap 4 and 17
1/24/08	Endiandric acid	Chap 17
1/29/08	<b>Homework 2 due</b> Go over homeworks 1 and 2	
1/31/08	<b>Test 1</b>	Test 1
2/5/08	Periplanone B, Cope	Chap 13
2/7/08	Periplanone B	Chap 13
2/12/08	Periplanone B, electrocyclic, 2+2 cycloadd.	Chap 21
2/14/08	Periplanone B	Chap 21
2/19/08	CP-263,114	JACS, 2000, 7424
2/21/08	CP-263,114	JACS, 2000, 7424
2/26/08	<b>Homework 3 due</b> , go over homework	Homework 2 due
2/28/08	<b>Test 2</b>	Test 2
3/04/08	Strychnine	Chap 2
3/06/08	Strychnine	Chap 2
3/18/08	Cocaine	Chap 33
3/20/08	Strychnine	Chap 33
3/25/08	Quinine	JACS 2001, 3239
3/27/08	<b>Homework 4 due</b> , go over homework	Homework 3 due
4/1/08	<b>Test 3</b>	
4/03/08	Progesterone	Chap 6
4/08/08	Prostaglandins	Chap 5
4/10/08	erythronolides	Chap 11
4/15/08	erythronolides	JACS 2004, 706
4/17/08	erythronolides	
4/22/08	<b>Homework 5 due</b> , go over homework	
4/24/08	<b>Test 4</b>	
Date TBA	<b>Final</b> (cumulative—based on previous homeworks and tests)	Final (cumulative)