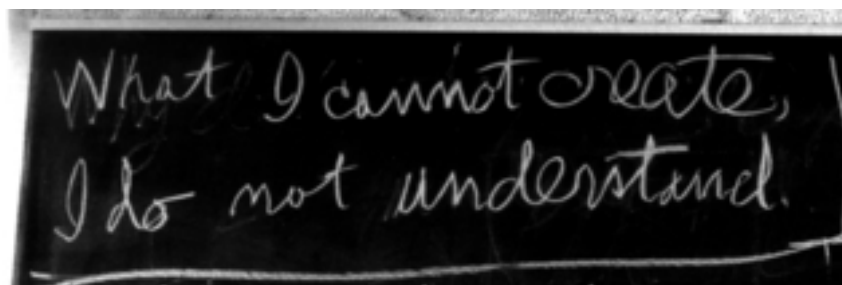


## Advanced Organic Chemistry – Course Overview



**on Richard Feynman's office blackboard  
at the time of his death (CalTech 1988)**

<b>Course Instructor</b>	Jonathan R. Scheerer Integrated Science Center 2045 (office), 2072 (lab) Office hours by appointment (or just stop by... If my office door is open, I am somewhere in the building).	jrscheerer@wm.edu (757) 221-2551
<b>Course Objectives</b>	To better understand structure and reactivity of organic molecules. Though vast numbers of reactions are known, most fall into a small number of mechanistic classes. We will focus on these most common reactive intermediates and how knowledge of the stereoelectronic interactions that govern the behavior of these reactive intermediates leads to predictable understanding of the way molecules behave—what rules of engagement are possible when molecules encounter one another and react.  Working reaction mechanisms are key exercise that we will use to develop and advance our understanding of structure and reactivity.	
<b>Course Eligibility</b>	Students must have taken the second semester of the organic sequence (Chemistry 209) or an equivalent course.	
<b>Course Meetings</b> TR 11:00–12:20 PM	Lecture is scheduled for ISC 2280.	
<b>Course Evaluation</b>	Exam 1 Exam 2 Final exam (semi-cumulative)  Problem Sets (9 of 10, 15 pts ea):  <b>Total Points*</b>	125 points (21%) 125 pts (21%) 215 pts (36%)  135 pts (23%)  <b>585 points</b>
		<i>Subtotal: 450 pts (78%)</i>
<b>Exams</b>	There will be two mid-term exams and a final. Portions of mid-term exams and final may be take-home. Take-home exam portions are open-book, but must be completed independently. You may not consult your peers for exams. Use of the computer for reaction searching is not permitted unless explicitly indicated. The final exam will be completed during the scheduled time.	

**Problem Sets**

Problem sets (10 total) will be available approximately a week in advance and will be due Fridays (at 4 pm) in my office. Each problem set will be worth 15 points. You are allowed to drop your lowest homework score (thus total homework points are 135 (15x9)). Generally, one around half the points are awarded for completion and satisfactory effort. The remaining points are awarded based on detailed grading of a problem (or two) of my choosing. No late problem sets will be accepted without advance agreement with me. No problem sets will be due during an exam week. Detailed answer keys are posted. You are to assess your own work and review your answers relative to the key answers. You are encouraged to work with each other (or anyone else) on problem sets, but make sure you are thinking about topics independently before sharing.

**Grading**

Final grades will be determined by the sum of your points throughout the semester by the following scale:

A 90–100%  
A– 80–89.9%  
B+ 75–79.9%  
B 65–74.9%  
B– 60–64.9%  
C–/C/C+ 45–59.9%

Due to exam curving these thresholds may go down; they will not go up.

**Class Attendance**

In accord with College policy, class attendance is expected. See undergraduate catalog for more information. Please notify me of any absences by email.

**Disability Services**

Students with disabilities must contact disability services in the dean of students office.

**Honor Code**

All students are bound by the Honor Code. Incidences of cheating will be reported to the Honor System. See the student handbook for more information on the Honor Code.

**Textbook:**

***Advanced Organic Chemistry, Part A (reactions and synthesis) 5<sup>th</sup> Ed. Carey and Sundberg.***

*Any edition will work. I don't think it has changed much at all from 4<sup>th</sup>.*

**Model Kits:**

Model kits are recommended and may be used on exams.

Any model kit will work, but if you want to purchase one (and if you want to go on to grad school in organic chemistry), then I suggest the smaller Bio-organic set from Maruzen (cat no 5000; ~\$50) <http://www.maruzen.info/hgs/catalog/>