

**Chemistry 236 Syllabus  
Organic Chemistry II Laboratory  
Summer 2016**

**TEXT:** Laboratory Experiments for Organic Chemistry, WVU Faculty. Available Online at:  
<http://community.wvu.edu/~josbour1/pages/Chem236.html>

**COREQUISITE:** You must be enrolled in Chemistry 234 at the same time as Chemistry 236.

**GENERAL INSTRUCTIONS:**

- Safety and Laboratory Rules: Before any laboratory work is permitted, you must read the WVU "Safety and Laboratory Rules for Organic Chemistry" and then sign a statement that you will abide by these rules.
- Clothing: NOTE: SAFETY GOGGLES AND LABORATORY APRONS ARE REQUIRED FOR ORGANIC CHEMISTRY LABORATORIES. They can be purchased at the University Bookstore. Proper lab attire is the equivalent of a T-Shirt, Pants that cover from the waist to the ankles, and shoes that cover the entire foot. Tank tops, muscle shirts, spaghetti strap tops, tube tops, backless shirts, are all on the UNACCEPTABLE list. Slip on shoes that cover the tops of their feet but leave the heel area exposed are also UNACCEPTABLE.
- Notebook: Use a "Chemistry Spiral Bound Carbonless Copy Lab Notebook" for outlining your experiment each week. You can simply continue with the notebook you started in Chem 235. You must record all of your pre-lab plans, experimental observations and results, conclusions, and answers to pre-lab and post-lab questions (found in the laboratory manual).
- Attendance: If you are forced to miss a laboratory period due to illness or an emergency, contact your instructor and teaching assistant. There are no makeup labs for Chemistry 236.
- Quiz: Four quizzes will be given during the course of the semester. The quizzes will be given at the beginning of lab.
- Final Exam: The final exam will cover material from the first lab to the last lab. Missing the final exam counts for zero.
- Your Teaching Assistant is in charge of your laboratory section. Follow instructions made by your TA concerning lab safety, keeping the lab clean, procedures, handing in assignments, etc. Do not be hesitant about asking your TA questions-- he/she is there to help you. Failure to heed the instructions of your TA will result in a lower TA subjective grade.

**Fill in your TAs contact information incase you need to get in touch with him or her.**

Lab TA: \_\_\_\_\_

Email: \_\_\_\_\_

Office: \_\_\_\_\_

### Schedule of Experiments – Summer 2016

Week	Date	Experiment	Subject	Quiz
1	6/28/16		Check-In Laboratory Safety Discussion	
	6/29/16		No Lab	
	6/30/16	10	Infrared Spectroscopy	
2	7/5/16	11	NMR Spectroscopy	
	7/6/16	24	Relative Reactivities of Aromatic Compounds	Quiz 1
	7/7/16	26	Aromatic Side Chain Oxidation	
3	7/12/16	33	Arene Diazonium Ion Reactions	
	7/13/16	25	The Grignard Reaction	Quiz 2
	7/14/16	25 30	The Grignard Reaction – Finish Up Synthesis of an analgesic: Aspirin	
4	7/19/16	29	Fischer Esterification	
	7/20/16		TBD	
	7/21/16	27	A Solvent Free Wittig Reaction	Quiz 3
5	7/26/16	32	Aldol Condensation	
	7/27/16	36	Qualitative Organic Analysis	
	7/28/16	36	Qualitative Organic Analysis	Quiz 4
6	8/2/16		TA Evaluations, Lab Final, and Checkout	
	8/3/16		No Lab	
	8/4/16		No Lab	

Quiz 1 will cover experiments 10 & 11 on spectroscopy.

Quiz 2 will cover experiments 24, 26, and 33 on the chemistry of aromatic compounds.

Quiz 3 will cover experiments 25, 30, and 29.

Quiz 4 will cover experiments 27, 32, and part 1 of 36.

### Grade Calculation

Notebook (pre-lab questions, experimental write-up, calculation, etc.) & Experimental Results	50%
Quizzes	20%
Lab Final Exam	20%
TA Subjective Grade (neatness, attitude, etc.)	10%

### Determination of the TA Subjective Grade (100 points possible)

**90-100:** Only the best of the best. These are individuals who are so good that they really should be working in a synthetic research lab.

**70-90:** This is the average to above average students. These students show interest, work carefully, and follow all safety guidelines.

**40-70:** This is the below average students who listen to directions and follows the safety guidelines, but can be careless in lab and shows only little interest.

**20-40:** These are students who come to lab but show little to no interest, have trouble following safety guidelines, and/or do not work neatly.

**0-20:** These are students who miss lab regularly, do not follow any directions, and have complete disregard for safety guidelines.