

**Chem 3650**  
**Organic II Lab**  
**Tuesday 4:00 – 4:50**

**Instructor:** Victoria Dougherty  
E-mail: victoria.dougherty@utsa.edu (put Chem 2630 in subject)  
Phone: 458-5473  
Office Hours (BSE 4.256): Tuesday 1:00 pm – 3:00 pm  
Wednesday 11:00 am – 1:00 pm

Lab instructors' email: James: JAMES.BOYD1@utsa.edu  
Ray : nvx791@my.utsa.edu

**Prerequisites:** Completion of or concurrent enrollment in CHE 2623.

**Course Outline:** Simple and multistep syntheses of organic compounds.

**Text:** There is **NO** text for this lab. Experimental procedures can be found on Blackboard.  
<https://bb.utsa.edu/>

**Lab notebooks:** Notebook must will be at the descretion of the lab instructor.

**Gades:** 75% lab reports  
25% Final exam

**Format of prelab:**

1. Title of experiment
2. Abstract
  - A short description of the experiment
3. Include reactions (with mechanism) if applicable.
4. Structures of reactants and products. (only organic compounds)
  - <http://www.sigmaaldrich.com>
  - *Wikipedia* also has information on chemical compounds but it is community maintained, so double check the information.
5. Table of physical constants for products and reactants.
  - Amount to be used, melting point, boiling point, MW, and density.
    - <http://www.sigmaaldrich.com>
6. Hazards of **all** chemical used in lab. (**must be complete or you will be sent out**)
  - <http://hazard.com/msds/>
  - <http://www.sigmaaldrich.com>
    - \*Most of the time typing the name of the compound and "MSDS" into *Google* will work. ie: "Hexane MSDS"
7. A description of the experiment that you will do that day.
  - Include the exact procedure
  - Include amounts of reagents, temperatures, and times.
8. Include sketches of apparatus
  - Can be found in online procedure

**Format of postlab:**

1. Include observations of the experiment.
  - Important details of the experiment.

2. Include melting points, mass of products, percent yield, and spectral data.
  - Must show calculations
  - Display in table form
  - Do not bury info in discussion
3. Discussion of experiment.
  - Talk about how the experiment went.
  - Are melting points what you expected, and why.
  - How is your percent yield?
  - What does your spectrum tell you?
  - Any relevant spectral data (IR). Use literature spectra as reference.
    - [http://riodb01.ibase.aist.go.jp/sdbs/cgi-bin/cre\\_index.cgi?lang=eng](http://riodb01.ibase.aist.go.jp/sdbs/cgi-bin/cre_index.cgi?lang=eng)
    - <http://webbook.nist.gov/chemistry/>

**Pre and Post labs will be due the next class period following the experiment. Late lab reports will have 10 points deducted for every *day* they are late. If you miss a lab you still need to get your instructor the previous week's lab report ASAP. You will have one week to make up a missed lab.**

**Miscellaneous:**

**Clean up:** It is your responsibility to clean your hood and clean your glassware. Students will be rotated throughout the semester to check the common areas and clean up if necessary.

**Points will be deducted if the lab is not left clean!**

**Cell Phones:** Turn them off!!

**Goggles:** Keep them on. You will be warned once and then sent out with a zero.

**Missed Labs:** Will be handled on an individual bases. If you know in advance that you will miss a lab let me know as soon as possible. If you do miss a lab it is your responsibility to make arrangements with me. You must e-mail the instructor and obtain permission to attend another section. You must "cc" all communications with the TA to me and obtain a signature on your pre-lab. Failure to follow instructions may result in a zero for the lab or a late grade.

**Clothing:** Closed toe shoes, no sandals or open toe shoes.  
Long pants or long skirts, no shorts.  
No midriffs showing.

**If you are not dressed properly you will not be allowed to stay in the lab!**

**Hair:** If you have long hair, it must be pulled back in a ponytail.

Schedule:

Week	Experiment	Procedure
25 Aug	Safety/check in	Labs will meet!!!!
31 Aug Section 001 will check in and do NMR	NMR of an unknown organic compound/ Recrystallization of an impure substance	<b>No procedure</b>
7 Sept	Free Radical Halogenation	Blackboard

14 Sept	Electrophilic Bromination of Acetanilide	Blackboard
21 Sept	Friedel Crafts Alkylation	Blackboard
28 Sept	Reduction of Carbonyl Groups	Blackboard
5 Oct	Grignard Reaction Preparation of Triphenyl Methanol	Blackboard
12 Oct	Synthesis of ( <i>Z</i> )- and ( <i>E</i> )- Stilbenes by A Wittig Reaction	Blackboard
19 Oct	Esterification of Carboxylic Acids	Blackboard
26 Oct	Aldol Condensation Synthesis of trans- <i>p</i> -Anisalacetophenone	Blackboard
2 Nov	Reductive Amination	Blackboard
9 Nov	Synthesis of nylon-6,6	Blackboard
16 Nov	Review for final	
23 Nov	Final Exam during lecture time	