

CHEMISTRY 252L ORGANIC CHEMISTRY I LABORATORY

Winter, 2011-12

Room: Moench F-108

INSTRUCTOR: Mark Brandt, Ph.D. E-mail: brandt@rose-hulman.edu
Office: Moench FL109 Tel: Ext. 8406
Website: <http://www.rose-hulman.edu/~brandt/OrganicLab/>

TEXTBOOKS: 1) Loudon, *Organic Chemistry*, 5th edition, 2009
2) Sapling Learning account for homework
3) *Spartan 10*

PROPER ATTIRE: Safety goggles can be purchased with your textbook in the school bookstore. Bring your safety goggle or the voucher to the first lab session to receive your goggles. You **must** have safety goggles to participate in laboratory. ***You may not start lab*** without appropriate "personal protective equipment" which includes: **pants, shirt that covers your shoulders and abdomen, shoes that cover your entire foot (heel to toe), and safety goggles.** Protective gloves will be available free of charge to students.

Bound notebooks can be purchased in the school bookstore. If you are unsure about which notebook to purchase, be sure to ask!

LABORATORY SCHEDULE

Week	Topic	Procedural Comments
1	Check-in and Resin-Based Oxidation Chemistry	Perform lab in pairs; pair report due week 3
2	Gas-Phase Synthesis of Tetrphenylporphyrin	Perform lab in pairs; pair report including Chromatography/Spectroscopy due week 4
3	Column Chromatography and Visible Spectroscopy of Tetrphenylporphyrin	Perform lab in pairs; pair report including Chromatography/Spectroscopy due week 4
4	Split Week (no lab)	
Christmas Break (begins after Tuesday of 4th week)		
5	Metallation of Tetrphenylporphyrin	Perform lab in pairs; pair reports due week 6
6	Spartan: Conjugated Systems (please bring laptop to lab)	Typed individual reports due week 7
7	Electrophilic Aromatic Substitution: Iodination of Vanillin, Part I	Perform lab in pairs; pair reports for combined parts I and II due week 9
8	Electrophilic Aromatic Substitution: Iodination of Vanillin, Part II	Perform lab in pairs; pair reports for combined parts I and II due week 9
9	Laboratory Practicum	Competency checklist will be graded in lab
10	Laboratory Practicum, Check-out, and Course Evaluations	Competency checklist will be graded in lab

PARTICIPATION, ATTITUDE AND SAFETY IN THE LABORATORY: All safety rules must be followed at all times. ***Failure to comply will result in immediate expulsion from the lab.*** In some cases, a grade penalty may be accrued for failure to follow safety rules. Specific safety issues will be addressed in detail the day of lab. ***Be sure you are aware of hazardous waste disposal before you begin your experiment. All accidents and injuries, no matter how minor, must be immediately reported to the instructor.***

Cleanliness and safe practices are required in the lab. Ask your instructor if you are unsure about how to do something or if you do not understand the reason for a procedure. Think about the chemistry that is happening in each step of an experiment. Anticipate outcomes with special attention to safety issues. Be aware of what is happening around you. ***Thorough and efficient operation in the lab and reading and thinking through the lab procedure before coming to lab is expected professional behavior.***

Arriving late to lab means that you may have missed some vital procedural and safety information. Depending on how late you are, you may be asked to leave the laboratory.

LABORATORY NOTEBOOKS: Learning to keep an accurate and detailed record of results is extremely important to all engineers and scientists. ***Your notebook is a permanent record of your experiments and your data.*** Notebook entries should be written clearly, concisely, and neatly. The following guidelines for recording entries in your lab notebook will be graded for competency when lab notebook entries are due:

- a) You must use a **bound notebook** (composition notebooks are most practical; you may use your notebook from a previous course). ***Do not tear out any pages of your notebook.*** The purpose of having a notebook is so that your records represent a ***complete*** log of your work.
- b) The first several pages of a notebook should be reserved for a ***table of contents.***
- c) All entries in your notebook should be made in ***ink.*** Any mistakes should be crossed out with a single horizontal line and initialed. ***Do not use whiteout.***
- d) Each page should be numbered sequentially in the upper outside corner.
- e) ***Each experiment should start on a new page.*** Your entry should include your name and your title, the date, a title for the experiment, and a reference for the procedure.
- f) Any data or notes written on separate pieces of paper should be transferred to your notebook as soon as possible.
- g) ***Sign each entry after you have completed the experiment.*** This signifies that the data reported came from the person responsible for the notebook.
- h) ***Have your instructor initial your lab entry before leaving the lab.***

LABORATORY REPORTS: Laboratory reports/assignments/write-ups will be discussed on the day of lab and a due date will follow the assignment (usually the following lab period, *i.e.* one week).

As with all assignments, *copying the work of another without proper attribution is a form of Academic Misconduct. All matters of academic misconduct will be handled according to the Rules & Discipline section of the Rose-Hulman Student Handbook.*

Reports should be submitted by placing them in the trays provided in the laboratory. Reports should be submitted on time; late reports will be subject to a 10% late penalty per day late, and it is likely that the feedback on your performance (grading) will be delayed as well.

You must pass both laboratory and lecture in order to pass the course.

ATTENDANCE POLICY: Attendance in all laboratory sessions and pre-laboratory sessions is required. If you need to miss a laboratory session, notify your instructor as soon as possible (***preferably before the absence***). Making up a missed laboratory session may not be possible, and ***is unlikely to be granted if your instructor is not informed before you miss the session.***

DISABILITY ACCOMMODATION: If you require disability accommodations, contact The Learning Center (contact by phone: (812) 877-8876, Campus mail: CM 82, and Email: learningcenter@rose-hulman.edu) to make initial arrangements and then contact the instructor.