

Name _____

Section No. _____

Station No. _____

Chemistry 253

Organic Laboratory Manual



Chemistry 253 Syllabus for Fall 2018

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sections	hours	day	instructor
1, 2, 3, 4	1–5 pm	M	J. Scheerer
5, 6, 7, 8	8 am–12 pm	T	R. Hinkle
9, 10, 11, 12	1–5 pm	T	D. Lashley

Laboratory Coordinators:

Janet Hopkins, ISC 1037, jhopkins@wm.edu; DerHong Shieh; ISC 1059

Prelab Discussion: ISC Auditorium,**Laboratories:** ISC Rooms 1028, 1036, 1040, 1064

Laboratory Schedule

Dates	Experiment	
Sept. 3,4	1A	Isolation of Lactose
Sept. 10,11	1B,2	Esterification of Unknown Alcohols; Lactose, Part B
	3	Oxidation of Cyclohexanol to Cyclohexanone
Sept. 17,18	3	Oxidation of Cyclohexanol to Cyclohexanone
	1B,2	Esterification of Unknown Alcohols; Lactose, Part B
Sept. 24,25	4	Kinetic vs Thermodynamic Control
Oct. 1,2	5A	Grignard Reaction, Part A
Oct. 8,9	5B	Grignard, Part B
	6	Preparation of Benzoin
Oct. 15,16	Fall Break	
Oct. 22,23	7A,B	Preparation of Aspirin, Part A&B
Oct. 29,30	7C	Preparation of Aspirin, Part C
	8	Friedel-Crafts Reaction
Nov. 5,6	9	Base Catalyzed Condensation
Nov. 12,13	10A	Electrophilic Substitution, Part A
Nov. 19,20	Thanksgiving Break	
Nov. 26,27	10B	Electrophilic Substitution, Part B
	11	Diels-Alder
Dec. 3,4	Laboratory Final Exam (during your regular lab hours)	

Attendance and tardiness policies

Prelab discussions: All students must arrive on time for the prelab discussion to hear important safety information as well as general information on the lab and valuable tips on execution. The prelab discussion starts sharp on the scheduled time on the day of each lab. **Unexcused late arrival at the prelab will result in a minimum 10 point deduction from the lab report grade. Missing the prelab discussion will result in a zero for the lab.** Oversleeping is not a valid reason for tardiness!

Unlike a lecture course that meets two or three times a week, a lab course meets only once. Thus it is critical that students attend each week in order to be exposed to the skills contained in the experiment for that week. In general, **a student must attend the laboratory section for which he/she is registered.** If the student is unable to attend the section for which she/he is registered for any reason it may be possible to attend a section at another time that week. In this event, please contact Dr. Lashley as soon as possible so that arrangements can be made to attend a different section. In case of unforeseen circumstances when there is no time to make arrangements please see Mrs. Hopkins in ISC 1037 (221-2543, jlhopkins@wm.edu) to see if space is available at another time.

While working in the laboratory students must wear closed-toed shoes and safety goggles. If a student forgets safety goggles we will provide a pair but there will be a **10 point deduction** from that day's lab.

If a student forgets closed-toed shoes they should under no circumstances miss or be late to the pre-lab lecture. Instead the student should inform the instructor after pre-lab lecture and we can grant them a few minutes to run home to get shoes from their room.

Team skills are an essential part of chemistry. The American Chemical Society (ACS) recommends learning how to interact effectively with a diverse group of peers to solve scientific problems. These team skills are as important as the chemistry content, laboratory techniques, and safety skills that you will be learning in the lab this semester. Lab partners, classmates, teaching assistants, faculty, and staff are expected to create an environment of mutual respect and cooperation. Everyone is expected to practice these team skills, conduct lab procedures safely, and maintain respect for the abilities of others.

Missed experiments can't be made up, due to the fact that each week lab rooms are set up for a different experiment. In the event that one or more labs are missed, the policy listed below will be used in grading the labs. Dr. Lashley may make changes in this process to account for individual circumstances related to the absence.

1. The first absence will result in the weight for the lab being added to the final exam.
2. The second absence will result in a zero for the second missed lab; the first missed lab weight will still be added to the final
3. The third absence will result in a zero for all three missed labs. The final will return to its normal weighting.
4. The fourth absence will result in a failing grade in the course.

The **Lab Schedule** is also available in Blackboard (Organic Chemistry lab II (Fall 2018)). You will be notified of any changes to the schedule on Blackboard or via email.

The **Final Examination** (no midterm) will be based on the chemistry, techniques and calculations involved in the labs you carry out over the course of the semester. The exam will count for 40% of the final grade; the remaining 60% will be based on grades received on the lab reports.

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