

Chemistry 4010/6010 Laboratory Syllabus Summer 2018

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Office Hours: Monday 12:30 – 1:30 pm, other time by appointment

Lab hours/location: Monday, Wednesday, 9am – 12:15pm, NSC-240

Laboratory Attendance:

Students are expected to attend all laboratory sessions. State law requires that you sign-in and sign-out for each laboratory session that you attend. Pre-lab lecture starts at **9am**, and takes 10-20 minutes. Students are required to **arrive on time**. Those who miss the lecture may not be allowed to perform the experiment that day.

Make-up Labs:

Make-up labs **are not allowed**, unless you **have a legitimate excuse for missing a lab**. After obtaining an approval from the instructor the student must take the missed lab within one week of the scheduled lab date and before the final exams week. Students must make prior arrangements with the instructor who is going to give the make-up lab.

Laboratory Reports:

Criteria used in grading the Lab Reports are: (1) your understanding of the experiment as judged by your comments and answers to questions, (2) the quality of your data, (3) the completeness and accuracy of your data analysis (including error analysis), (4) the report's clarity, organization, and quality of presentation. Lab report format should follow ACS guidelines. Laboratory reports are **100 points each**, and must be turned in on the due dates (see the Lab Schedule). Report outlines, tables and figures can be submitted to your laboratory instructor one week in advance of the due date for helpful comments. Laboratory Report #1 can be re-submitted once with corrections for re-grading at a later date (assigned by the instructor). Reports #2-4 can be submitted only once.

Digital data must be saved offsite, and be available upon demand by the instructor for full credit.

Laboratory Notebook Reports:

Notebook is required for the laboratory sessions, and will contain all of your notes, data, observations and calculations, and notebook reports (see the Lab schedule table below). For additional requirements please see the lab manual (pg. 3). You must turn in a complete laboratory notebook with your final laboratory report. Additionally, whenever you turn in a laboratory report, the corresponding section of your notebook must be complete. Laboratory notebook reports are **50 points each**.

Late Assignments:

Late assignments will be penalized 2 points each workday delay. **After 2 weeks from the due date lab reports will not be accepted**, and student will receive 0 points on that report.

Lab Course Grading:

Reports (4)	400 = 4*100
Lab notebook reports	100 = 2*50
Notebook	50
Total	550

Tentative Schedule of Laboratory Sessions:

Day	Session #	Exercise	Reports content location	Report Due
Jun 6	1	Lab rules and lab safety presentation Check in GC1 – Injection technique	No report	
Jun 11	2	GC2 – Qualitative analysis	Report #1	
Jun 13	3	GC3 – Quantitative analysis		
Jun 18	4	GC4 - HETP	Notebook report	Report #1
Jun 20	5	GC5 – Kovats retention index	Report #2	
Jun 25	6	GC6 – Temperature programming		
Jun 27	7	GC7 - Enthalpy		
Jul 2	8	GC8 – Similar boiling points		
Jul 9	9	TLC	Report #3	Report #2
Jul 11	10	HPLC1 – Analgesics (group A)	Report #4	
Jul 16	11	HPLC1 – Analgesics (group B)		
Jul 18	12	HPLC2 – Gradient Elution (group A) Check out	Notebook report	Report #4 Notebook submission
Jul 23	13	HPLC2 – Gradient Elution (group B) Check out	Notebook report	Report #4 Notebook submission

*HPLC exercises need to be scheduled for smaller groups. Accordingly, the lab section will be divided into two. Sign-up sheets will be supplied by lab personnel. Each subgroup will have a week on – week off schedule. However, report #3 is due on session **11** no matter how the student is scheduled for the HPLC exercise.