Chemistry 241L Course Syllabus – Fall 2008

Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds

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LAB CHECK-IN:

Check-in for Chemistry 241L will begin the week of Aug. 25th.

- Students are required to meet in their scheduled lab room in Morehead Labs on the day and time of their scheduled lab section (See Section Room Assignments In Glass Case Outside Morehead Room 208).

- Students MUST BRING GOGGLES, WEAR TENNIS SHOES, AND BRING THEIR LAPTOP. You will need all these items to be allowed to check-in. If you have never had a lab at UNC then you will be given a free pair of safety glasses the day of lab check-in.

- Registered students who do not show up, or who show up late, to their check-in lecture will automatically be dropped from the lab. Attendance is taken once the lab starts so show up on time.

COURSE PRE- AND CO-REQUISITES:

- Chemistry 101L (11L) and 102L (21L).

- Students are required to have taken or currently be enrolled in Chemistry 241 (41) or 241H (41H).

NOTE: It is an honor code violation to be enrolled in a course while lacking the proper pre- or co-requisites.

TEXTBOOKS:

- Chemistry 241L Lab Manual (On Blackboard in PDF format).

- *Quantitative Chemical Analysis*, 7th ed., Daniel C. Harris (Lecture Text)

- Laboratory Notebook with pre-numbered, carbonless duplicate pages. The chemistry fraternity (AXE) is selling these lab notebooks for $11.00 in Morehead Room 102.

  - Students may use left over lab notebooks as long as they meet the below requirements.

EQUIPMENT:

- A good scientific calculator, to be brought to ALL lab meetings.

- Laptop computer.

- Safety glasses. If you forget your safety glasses you will have to purchase a new pair in Morehead Labs Room 102. **We DO NOT rent safety glasses.**
STUDENT LAPTOP COMPUTERS:

There are a number of experiments you perform in this laboratory course which require you to have your laptop, these experiments are clearly indicated in your lab manual. **ALL** students are required to bring their laptop computers when instructed, regardless of whether you will be working in pairs or not. If you forget to bring your laptop to lab, your will not be allowed to perform that days experiment. We will allow you to make up the lab but we will penalize you 10 points for not coming to lab prepared.

**Important:** It is your responsibility to make sure your laptop is working properly. Coming to lab and telling your TA or instructor that you could not bring your laptop because it is not working is not a valid excuse and will not be accepted as a valid excuse. If you are having problems with your computer, you need to resolve those problems before those labs where you will need to have your computer.

ATTENDANCE POLICY:

Read the Attendance and Lab Make-Up Policies in the Introduction to Chemistry 241L chapter of the Lab Manual, located on Blackboard. Make sure you know and understand these policies.

GRADING AND GRADING POLICIES:

The points available in this class will be assigned in the following manner:

- Pre-Lab Assignments (5 pts/lab): 40 points
- Pre-Lab Quizzes (10 pts/lab): 80 points
- Lab Notebooks (10 pts/lab): 80 points
- 4 Formal Reports (200 pts for GC and 100 pts for other three): 500 points
- 4 Informal Reports (100 pts each): 400 points
- Lab Performance (10 pts/lab): 80 points
- Lab Final: 100 points

**Total:** 1280 points

LAB REPORTS:

The guidelines for writing formal and informal lab reports are located in the Introduction to Chemistry 241L chapter of the Lab Manual, located on Blackboard, on pp. 14-20. Students are required to follow these guidelines. At the end of each experiment is a statement regarding whether the report is a formal or informal report, so make sure you are clear as to which are formal and which are informal.

LATE LAB REPORTS:

- Lab reports are due one week after the scheduled completion of each experiment. For Experiment 1 (Gas Chromatography), it is one week after completing Day 2 of the experiment.

- Lab reports are to be submitted via the Digital Dropbox on Blackboard before lab starts. Digital Dropbox time stamps each report so there will be an accurate record as to when the report was turned in. If your lab is at 1:00 and you turn in your report at
1:01, your report is late. It is your responsibility to make sure you have given yourself enough time to submit your report.

- It is the students responsibility to check that their lab report was properly uploaded to Digital Dropbox.

- Lab reports turned in late will be penalized 10% per day.

- Lab reports turned in more than two days late will not be accepted.

- Late lab reports are to be emailed to Dr. Tiani at tiani@email.unc.edu.
  
  - All late reports must be emailed to Dr. Tiani, not your TA.
  - DO NOT drop off or submit paper copies of your report, they will not be accepted.

PRE-LAB ASSIGNMENTS:

With the exception of the first and second week of lab, students will have a graded pre-lab assignment. The guidelines for the pre-lab assignment are on pp. 12-13 in the Introduction to Chemistry 241L Chapter of the Lab Manual, located on Blackboard. You must follow these guidelines. The specifics of how to maintain your lab notebook are discussed in the Introduction to Chemistry 241L Chapter of the Lab Manual (Blackboard) on pp. 10-12. **For the buffer lab there will be some pre-lab questions that must be answered and turned in. This is in addition to the typical pre-lab assignment.**

QUIZZES:

You will have a 10 minute quiz at the beginning of each lab period, with the exception of the two weeks of lab (Check-In and Safety Training). The quizzes are designed to make sure that you have read the lab manual and are prepared to carry out the scheduled experiment. The best way to prepare for quizzes is to carefully read the scheduled experiment in the lab manual.

LAB NOTEBOOKS:

At the end of each lab period your TA will collect the duplicate pages from your lab notebook and assign a lab notebook grade for that experiment. The guidelines for maintaining a lab notebook can be found in the Introduction to Chemistry 241L Chapter of the Lab Manual (Blackboard) on pp. 10-12. Your TA will also work with you regarding how to properly maintain your lab notebook.

LAB PERFORMANCE:

There are 80 points assigned to lab performance (10 points for each experiment). When your TA assigns lab performance points, they are looking to see whether a student works safely in the lab (e.g., do you wear your goggles or does your TA have to constantly remind you to put them on), do you follow the instructions provided in the lab manual, do you follow your TAs instructions, and do you perform the techniques shown to you, and provided for you in the lab manual, properly. You can lose lab performance
points for coming to lab late, coming to lab unprepared (i.e., not bringing your laptop or safety glasses), for not wearing the correct footwear, and for being disruptive to the class.

LAB FINAL:

At the end of the semester there will be a cumulative lab final. The lab final will be given after after you check-out, in your respective lab room. The lab final will include definitions, glassware identification, equipment identification, instrumentation, data analysis, calculations, instrumental questions, questions regarding analytical methods used, experimental questions, and safety.

HONOR CODE:

The following policy was adopted by the faculty of the Department of Chemistry on September 9, 1977:

“Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examination, research proposals laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected.”

Note: Additional information regarding the Honor Code at UNC-CH can be found at the following website:  http://www.unc.edu/depts/honor/