Chemistry 441L Course Syllabus – Spring 2013
Intermediate Analytical Chemistry Laboratory

Faculty Adviser: Professor Tiani
Office: Kenan Labs Room B128
Email: tiani@email.unc.edu

Lab Coordinator: Dr. Reid Haslup
Office: Morehead Labs Room 206
Email: clonts@email.unc.edu

Lab Location: Morehead Labs Room 305

CHEMISTRY 441L TAs AND TA CONTACT INFORMATION

Ms. Stephanie Moore (stumoore@email.unc.edu): CE & GC-MS
Mr. Dan Lun (dlunn@email.unc.edu): HPLC and Electrochemistry
Mr. Justin Godinho (godinho@email.unc.edu): Electronics and AA
Ms. Brittany Worley (bvworley@email.unc.edu): GC and Fluorescence

• If you have general questions regarding any of the techniques please talk with any of the 441L TA’s.

• If you need help or have questions regarding a specific experiment you should talk to the TA who is teaching that particular experiment since they will be grading your lab report for that particular experiment.

• Each TA is in charge of teaching 2 of the 8 experiments you will cover throughout the semester and they will grade the reports for their two assigned experiments.

LAB CHECK-IN

• There will be a required organizational meeting on Friday, January 18 from 12:00-12:50 in Venable Room G311 for all students enrolled in Chemistry 441L.

• Experimental work for Chemistry 441L will begin the week of January 28.

COURSE PRE- AND COREQUISITES

• Chemistry 441 is a pre- and corequisite for Chemistry 441L.

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

FRIDAY RECITATION: This course has a required recitation component that will be held on Fridays from 12:00-12:50 in Venable Room G311. There will be 4 or 5 lectures on elementary electronics and instrumentation on 4 or 5 recitation dates and another recitation date will be used for the electronics final, which is part of your lab grade. The electronic lecture dates (recitation days) will be posted on the CHEM 441 and 441L Sakai sites.
TEXTBOOKS & EQUIPMENT

- Laboratory Notebook - **Required**: Pages must be pre-numbered and it must have carbonless duplicate pages. You may use an old lab notebook if it meets the criteria listed here. Alpha Chi Sigma (AXE) chemistry fraternity will be selling lab notebooks outside of Morehead Labs 102 the week of January 14th for $10.00 (cash or check). You may use left over lab notebooks as long as they meet the specified criteria.
- Scientific calculator.
- Lab Goggles - **Required**. If you forget your lab goggles you will have to go to Morehead Labs 102 and purchase a new pair.
- Lab Coat – **Required**:
  - Part of the lab notebook royalties goes towards providing each student with a disposable lab coat.
  - You may purchase a nicer, full size lab coat from the bookstore, but this cost would fall on the student. If you decide to use your own lab coat the department must approve the type of lab coat before the start of labs. Lab coats that only come to the waist, for instance, are not acceptable.
  - Lab coats must stay in the lab room, they may not be taken with you when you leave lab.
- Flash Drive.

EXPECTATIONS:

The TA’s will evaluate lab performance based on preparedness, how well you maintain your lab notebook, the completion of pre-lab assignments, general laboratory skills and your contribution to the group work in lab.

- Arrive to lab on time.” Lab Safety Contract” and “Lab Safety Rules” handouts on Sakai under “Lab Documents”.
- Complete any pre-lab assignment before the scheduled lab period.
- Read and understand the laboratory procedures for your scheduled experiment before arriving to lab.
- Perform all calculations for your scheduled experiment before arriving to lab.
- Any student who arrives to lab unprepared can be sent home and not be permitted to perform the scheduled experiment.
• We understand that you may be graduating and thus may need to miss lab for professional travel. If you email me ahead of time (tiani@email.unc.edu) I will work with you to make other arrangements that will allow you to complete the lab work.

• Please do not ask your TA to excuse a lab absence; only Dr. Tiani can grant an excused lab absence.

LAB PERFORMANCE
• At the end of each lab period your TA will assign 10 lab performance points. When your TA assigns performance points they are looking to see whether you worked safely in lab (e.g., do you wear your goggles or does your TA have to constantly remind you to put them on), did you follow the instructions provided in the lab manual, did you follow your TAs instructions, and did you perform the techniques shown to you properly.

• You will lose lab performance points if you arrive late to lab; you arrive unprepared for lab, such as not bringing your laptop or safety glasses, for not wearing the correct clothing and footwear, and for being disruptive to the class.

SAKAI
• The 441L syllabus, announcements, grades, lab safety policies, lab report criteria, lab notebook criteria and other important lab information are posted on Sakai (https://sakai.unc.edu).

• Please email Dr. Tiani (tiani@email.unc.edu) if you cannot login to Sakai.

• Lab reports are submitted through the “Assignment” feature on Sakai so it is important that you have access to the Sakai site for your lab section.

• If you are not receiving emails from your TA let them know ASAP.

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

8 Lab Reports (1 Week Labs: 100 points each & 2 Week Labs: 150 points each)
  • 1 Week Labs (GC, GC-MS, Electronics, Fluorescence, HPLC) 500 points
  • 2 Week Labs (AA, CE, Electrochemistry) 450 points

Lab Performance (10 points/lab): 110 points
Lab Notebook (11 Experiments & 10 points/lab): 110 points
Electronics Final: 100 points

Total 1020 points

The grades for the lab will be weighted as follows:

  Lab Reports – 72 %
  Lab Performance & Lab Notebook – 23 %
  Electronics Exam – 5 %
• Your TA will grade all your reports and assignments throughout the semester. However, the lab instructor, not your TA, will determine all final lab grades.

• Because lab section averages range widely, section averages will be normalized to ensure consistency and to account for differences in grading across sections.

• You will be assigned a letter grade based on your standing in your given lab section.

**ATTENDANCE & LAB MAKE-UP POLICY**

• **Attendance is mandatory.** The course objectives cannot be achieved without spending time in the lab. The ability of a TA to evaluate a student’s performance depends on their ability to observe the student’s performance in lab; for this reason students need to make attendance a priority.

• Dr. Tiani (Chemistry 441L Lab Instructor) must approve all lab absences prior to the day of the missed lab. Dr. Tiani will work with students who have an excused absence to make up the missed lab work. In those cases where a lab is missed due to the death of an immediate family member, severe illness, or severe accident, approval does not need to be obtained before the missed lab. In these cases, email Dr. Tiani when possible.

  • The lab manager CANNOT approve a lab absence.
  • The lab director CANNOT approve a lab absence.
  • TA’s CANNOT approve a lab absence.

• Under extreme circumstances a student may request a second lab absence.

• Only two excused lab absences will be granted during the semester. If a third lab is missed a zero will be assigned for that experiment (pre-lab, report, lab notebook). More than 3 missed lab experiments, excused or unexcused, will result in an automatic F for the course. The Chemistry 441LL faculty instructor will handle cases involving extenuating circumstances on a case-by-case basis.

• If you miss a lab and have an excused absence, Dr. Tiani will work with you to find a time to make up the missed lab experiment. Scheduled lab make-up work for Chemistry 441L will be handled on a case-by-case basis.

**LAB REPORTS**

• Lab reports are due one week after the scheduled completion of the experiment by 1:00 pm. In the case of a two-week experiment, the lab report will be due one week after the completion of the second week of experimental work.

• Follow the lab report criteria posted on Sakai under “Lab Documents”.

• Make sure to answer all the questions and provide the calculations and other responses for any items listed at the end of each experiment in your lab manual.

• In many instances this semester you will work with a partner or as part of a group, carrying out the experiment and acquiring data collectively. However, there is no
collaboration on the writing of lab reports, this includes working up the data, answering experiment questions, discussing your data, and constructing plots. All the work within your report must be your own.

- If you are having difficulties writing your report or have questions, seek help from the 441L TA’s.
- You are prohibited from using old lab reports or old Chemistry 441L lab material. Any use of old lab reports or 441L material will be treated as an honor code violation.
- Lab reports are submitted electronically from within Sakai. The instructions for uploading lab reports on Sakai are located on Sakai under the “Documents” tab in the left side navigation bar.

LATE LAB REPORTS

- Late lab reports must be emailed to Dr. Tiani (tiani@email.unc.edu). DO NOT email your report to your TA, do not try to upload your report late and do not attempt to turn in a paper copy of your report.
- It is the responsibility of the student to verify that their lab report was properly uploaded to Sakai and submitted by the scheduled deadline.
- Lab reports turned in late will be penalized 10% per day.
- Late lab reports must be received by Dr. Tiani no later than 48 hours past the scheduled due date; lab reports received later than 48 hours with no extension will receive a zero.

PRE-LAB ASSIGNMENTS

- The AA, HPLC, CE and Electronics experiments all have a pre-lab assignment.
- You are required to complete this pre-lab assignment before the start of the lab period. If you arrive to lab unprepared you will be sent home and not be permitted to perform the scheduled experiment.
- ALL pre-lab assignments are to be completed in the lab notebook.
- Points can be deducted from your lab performance grade if you do not complete your pre-lab assignment.
- The pre-lab assignments are designed to help prepare you for that days scheduled experiment and help ensure that you can complete all the scheduled experimental work within the allotted time.
- The Pre-Lab assignment points are part of the lab report grade for the above 4 experiments.

LAB NOTEBOOKS

- Students must turn in the duplicate pages from their lab notebooks at the end of each lab period. If you leave lab without submitting your lab notebook pages, you will receive a zero for that experiments lab notebook grade.
• Your TA will grade your lab notebook pages and these scores will go into the determination of your lab grade.
• Follow the criteria on the lab notebook handout posted on Sakai under the “Lab Documents”.
• All your calculations, observations, experimental parameters, experimental problems, file names and data must be recorded in your lab notebook.

HONOR CODE

The Department of Chemistry faculty adopted the following policy 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) 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.”

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

The following situations below will be treated as honor code violations based on the requirements specified within the syllabus and the Introductory Chapter of the Chemistry 441L lab manual, where the lab polices are discussed in more detail.

• Plagiarism. The ideas presented in your report must be your own. If you present someone else’s ideas or work (from books, old lab reports, the Web, the lab manual) as your own, this is plagiarism. You can present facts from an outside source, as long as you properly reference the source.

• Allowing students to use your work as their own. Do not allow your partner or other students to have access to your lab reports. You may share data if you collected the data together, but everything else (calculations, graphs, tables) must be done alone.

• Using old lab reports, even if you just want to glance over them, is an honor code violation.

• Do not rearrange a paragraph or some other piece of work that is not yours in the hope of disguising the work as your own.

• Unauthorized collaboration. If you need help you must talk with your TA. All lab reports must be written independently.

• Using an old lab manual from a previous semester.