Pchem Lab Spring 2003  Chem343

Instructor: Yoshitaka Ishii E-mail: yishii@uic.edu
Office: 5414SES
Office Hours: Monday 1:30-2:30 PM (Appointment by e-mail is required)
Chem 343 Website: www.chem.uic.edu/chem343

Lab (SEL 2013) 7 Experiments in 15 Weeks
MW  8:00-10:50 (Chimon, Sandra schimo1@uic.edu 3-2943) 6
TR  8:00-10:45 (Wickramasinghe, Nalinda wickr1@uic.edu 3-2943) 10
TR  11:00-1:45 (Kottegoda, Sumith skotte1@uic.edu 3-5082) 9

Lectures
F  10:00-10:50

Week (2N+1) Lectures by YI at A6 LC (week 3 will be used for Labworks presentations)
Week 2(N+1) Instructions on the experiment from the following week
(Location specified by each instructor)
Lab Schedule

Materials
Please download at Website:  http://www.chem.uic.edu/chem343

Instruction Assignments
Gas Effusion (Kottegoda);  FTIR (Chimon);
NMR (Ishii);  Flash Photolysis (Wickramasinghe)
GC/MS  & UV/Vis (Rotation)

Holidays  Jan. 20: MLK Day; Mar. 17-21 Spring break

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<th>Week 3,4 Jan 27-Feb 7</th>
<th>Week 5,6 Feb 10-21</th>
<th>Week 7,8 Feb 24-Mar 7</th>
<th>Week 9, 10 Mar 10-28 (17-21)*</th>
<th>Week 11,12 Mar31-Apr11</th>
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Some cautions from Syllabus

**Prerequisites:** Chem. 342 is the only prerequisite

**Registration:** Please make sure you are registered for the course and the proper section of the course you are attending. The Department does not allow students to register for one laboratory section and do their work in a different section. Teaching assistants do not have the authority to waive this policy.

**Add or Drop the Course:** Deadline of Friday, January 24, the last day on which you can drop courses without penalty. Between Week 3 and Friday of Week 9, LAS undergraduate students are entitled to a total of two optional late drop during their enrollment in LAS.

**Examination:** There is a final exam (date to be Announced).
Cautions!! About Laboratory

♠ At a minimum, you must perform all the Labworks experiments and all other six experiments.

♠ You are not allowed to be absent at more than two classes. In case you need to be absent for compelling reasons, advance notices to your TA and your lab partner are required.

♠ You need to obtain permission from your TA if you want to be absent.

♠ A laboratory report for each of the six experiments must be turned in, in a timely manner (Total 6 reports). In addition, you are required to attend all pre-lab discussion and lab sessions.

♠ Failure to comply any of the above items will result in a grade E.

Dont' be Late !!!

♠ Any laboratory works cannot be started until all the lab partners are present. Hence, a late arrival is subject to strict deduction of your points.

♠ Lab reports up to one week late will receive a maximum grade of C unless there is a compelling reason such as an emergency case (a proof may be requested). No lab report will be accepted beyond one week (Namely, Grade E).

♠ Also, your points will be subtracted if you are late for a discussion class or a lab.
Preparation for Laboratory

♦ You must read all background and lab handouts before coming to the lab.

♦ You will be orally quizzed on the material to check your preparedness (10 point for each lab session). If you are not prepared you will not be allowed to continue with the experiment.

♦ If you apparently fail to read background or lab handouts more than two times, your grade will be E.

Academic Dishonesty

♠ Academic dishonesty in any form will not be tolerated in this course.

♠ Plagiarism and submission of laboratory data and reports obtained or written by others is academic dishonesty. Any students caught cheating will be immediately assigned a grade of E. Further disciplinary action will be discussed with the Department and the Dean.
Grading

Your grade will be based upon the following:

- Oral presentation of Lab Works experiments: 50 points
- Lab reports (six at 100 points each): 600 points
- Home work including lab quiz (10 at 10 points each): 100 points
- Laboratory Performance: 150 points (preparedness, adherence to safety rules, cleanliness of working environment, lab notebook, general performance in lab)
- Final exam: 200 points

Total: 1100 points

♠ Late arrival to the lab
   - 5 points within 10 minute delay
   - N*0.5 points for being N minute late after that

Example

John obtained 90 points for his lab report, but he was 80 minutes late in one of his lab. So, unfortunately, His final score for the experiment was

90 - 80*0.5 = 50 points
Laboratory Notebook

You and your lab partner are required to individually each have a bound laboratory notebook in which you keep a record of all of you lab activities.

♦ Format
1. It must have a table of contents.
2. All pages must be dated and numbered.
3. No pages can be torn out.
4. All data, analyses, and comments must be written legibly in blue or black ink.
5. All data must be entered directly into the lab notebook. TA will confiscate data written on loose sheets.

♦ Check out by TA
6. All data pages must be signed by your TA on the date the data is recorded.

♦ Data and computer generated graph
7. All analysis of your data and results must be recorded in the notebook.
8. All plots must be computer generated. Fitting of data to lines must be done by linear least squares analysis with slope, intercept, and correlation quoted.
9. Any additional plots or other computer-generated material must be neatly typed or glued into the notebook.

Also, when you have to correct a description, cross it our (like 4234) rather than erase or paint it out so that other will be able to understand how it is corrected.
Laboratory Reports

报告应由电脑生成。

除最后一项实验外，实验报告应在实验结束后两周内提交，使用实验室报告手稿中的格式。最后一项实验的报告应在实验结束后一周内提交。

所有图表都必须由电脑生成。

报告必须交给你的分组助教。

迟交的实验报告在到期后七天内可接受，但最高分数为C。实验报告在一周内未交的将不会被接受。如果在报告到期后未在一周内提交，你将获得课程的E级。最后一项实验的报告将不会接受。

本课程满足“在学科中写作”要求。因此，到课程结束时，你应能够以一种合乎科学严谨的文献方式来报告你的实验结果。

简洁的文风、合理的误差分析，以及数据图形化描述都是重要的。 (语法，拼写，清晰度，组织性 – 以及表格，图形，误差分析的适当运用)
Safety

♥ You are required to wear safety goggles (also gloves if required) while doing the experiments.

♥ Safety considerations also demand the proper use of equipment, suitable disposal of leftover chemicals (never down the sink!), and appropriate attire (i.e., avoid short clothing and open-toed shoes).

♥ In a laboratory area, drinking, eating, chewing, and smoking are strictly prohibited.

♥ Keeping your working area clean is an absolute must.

♥ Any of these requirements cannot be overstated and violations will have serious repercussions.

♥ You will be asked to leave the laboratory if you are exposing yourself or your fellow classmates to dangerous lab practices.
Computers and Software

♣ Bring a floppy to every class to store your data.

♣ Do not assume that the files you created in one session will still be there in the next. Our computers are “virus” free. Make sure they stay that way by only inserting your floppies into our computers. If you wish to process your data outside of lab use another floppy which you clearly label as “foreign.”

♣ Never insert a foreign floppy into our computers! In addition to the software required to run several of the experiments, Excel has been installed on most of the computers in 2013A SEL.

♣ Sigmaplot is available to us on the computers in the Varian NMR room (2032 SEL). You may use any software you wish to graph data.
Attention Curve

Important fact
Most audiences remember 30% of your presentation
Preparation for Presentation

Format
• Use 18 points or larger (minimum 16 Points), small fonts discourage your audience
• No more than 7 lines

Manuscript
• Write a manuscript (100 words per min)
• Practice until you forget it

Before presentation
• Be confident
• Prepare for questions
Presentation

Beginning
- Attract attention of your audience
  (Title, how to start)
- Introduce what is interesting points in your talk

Middle
- Give your audience a break (joke, picture)
- Repeat important points (results) using different wording

End
- Summarize your results and conclusion at the end
- Finish within the time limit