General Chemistry 10122 / 10125 Spring 2008

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Office Hours (Anne Richards)
Monday 10:00 – 11.00, 3:30 - 4:30
Tuesday 8.00 – 9.30, 2.00-3.30
Thursday: 9.30-11.00, 3.15-4:30
Other times, by appointment only, if my office door is open, you are welcome to come in and ask any questions you may have*

Other Options
Contact your T.A.
Discussion board: http://www2.tcu.edu/depts/chm/discuss/

Requirements
Pre-requisite Chemistry 10113 Co-requisite – Chemistry 10123

Required Text:
Laboratory Manual: Catalyst, Prentice Hall (Custom Text, you can only purchase this from the book store)

Class Schedule:
Lab Lecture: Thursday 2.00 – 2.50 pm, SWR LH2
Lab Times Monday 3.00 – 6.00 pm SWR 400
Tuesday 8.00 –11.00am SWR 400
Tuesday 2.00 – 5.00pm SWR 400

Evaluation Method
Laboratory Reports 50%
Quiz Grades 10%
Exam 1 20%
Exam 2 20%

Laboratory Reports
The lab reports are divided into three sections:
1. Pre-lab
2. Lab report
3. Post-Lab questions

Everything has to be turned in 15 minutes after the end of the lab. In many cases, the lab will require the full 3 hours, therefore it is strongly recommend that you complete as many of the post-lab questions before your lab session.

Pre-labs have to be completed before you enter the lab, if no pre-lab is completed you will not be allowed to do the lab.

The grading of the reports will be broken down into 33.3% for each section, on labs where there are no post lab questions the grading policy will be indicated.

Your lab reports will be returned to you during the lab lecture on the Thursday following your labs. Before asking for any kind of re-grade, you are required to consult the answer key that will be posted on line. If you believe that your report has a grading error, it must be turned back in to the re-grade box, at the front of the lab, with a note explaining the reason a re-grade is required. Do not hand your reports to your T.A. or me while we are in the lab, this is how lab reports get misplaced.

If your lab reports are written in pencil, no re-grade will be considered, and like-wise for quizzes and exams.

Course Objectives:

- To be able to safely and efficiently use scientific glassware, chemicals and equipment.
- Balance equations, calculate stoichiometry, percentage yields
- To accurately describe and explain phenomena observed in the lab.
- Be able to look up and report information from reference books.
- Learn how to work to deadlines in a responsible manner.

Course Information and Policies

- Some medical conditions make exposure to chemicals unwise. If you undergoing treatment from a physician are on medication or have any concerns about possible chemical exposure, please check with your physician prior to beginning the laboratory.
- A pre-lab is required for every lab session. If this is not completed you will not be allowed to begin the lab.
- Pre-labs should not be completed outside the lab on the day of your lab. If this is observed, you will immediately lose half points from your pre-lab.
- All lab sessions and lab lectures are to be attended, and to be attended on time. Any student that turns up more than 15 minutes late for a lab session will not be allowed to perform that lab.
- In many labs, there will be minor changes made to the procedure given in the text. These will be discussed in the lab lecture. The lab lecture will provide you with an overview of the experiment that you will perform in the lab. For r own benefit and to understand the concepts of the experiment, attendance at the lab discussion is encouraged.
- All students are required to wear eye protection. If you wear glasses, you will need to wear safety goggles over the glasses. Contact lenses may be worn under safety glasses, but the session TA must be informed. Goggles must be worn at ALL times when in the lab. If a student is seen without wearing goggles, the student will be asked to leave the lab. No open toe shoes are allowed in the lab, and the wearing of lab coats is encouraged.
- For many of the labs, data sheets will be filled out during the lab. These will be turned in before you leave the lab. No late lab reports will be accepted.
- Students are expected to turn in independent lab reports. Where work is ‘quoted’ from references, credit must be given (referenced). You must use your own data, if your report does not match your lab notebook, you may be assigned zero, or have to redo the report. Do not copy your lab partner; rarely do two people describe something in an identical manner! Calculations should be made individually even if you are using the same data.

- Points will be deducted for careless or reckless work, messy lab spaces and poor techniques.
- If you miss three unexcused labs, an F grade will be assigned, if you have an 'excused absence' (as defined by the university handbook), please inform me as soon as possible.
- Lab reports, quizzes and exams should be completed in ink. If pencil is used, no re-grades will be considered.
- Please see below for information on the breakdown of points and grading policies for lab reports.

Last Drop Date: Wednesday March 19

Exam and Quiz Schedule:
Quiz 1: January 31
Quiz 2: February 14
Exam 1: February 28
March 13: Spring Break, No Class
Quiz 3: March 27
Quiz 4: April 10
Exam 2: Thursday April 24

This syllabus is subject to change. Any changes that occur will be communicated in a timely manner and will only be made to benefit the learning experience of the class.

PLEASE NOTE: THE MANUAL DOES NOT HAVE THE LABS IN THE SEQUENCE THEY WILL BE PERFORMED. THIS IS NOT AN EXCUSE FOR AN INCOMPLETE PRE-LAB.

TENTATIVE LAB SCHEDULE

Week beginning:	Lab experiment	Pre lab and post lab assignments
14 Jan.	Read lab safety and guidelines: Pages 1 - 42	
21 Jan. Lab. 1** Mon students: This is a holiday. you will perform this Lab in make up week. I	Check in. Chemicals in Everyday Lives. Pages 89 – 98	Pre-lab: Page 93 Post Lab: Pages 96-97
28 Jan. Lab. 2	Activity series Pages 99 - 108	Pre-lab: Page 102 Post Lab: Page 108
4 Feb. Lab. 3	Chemistry of copper Pages 109 – 116	Pre-lab: Pages 111 – 112 Post-Lab: Pages 114 - 115
11 Feb. Lab. 4	Titrations of acids and bases Pages 117 - 128	Pre-lab: Pages 122 – 123 Post-Lab: Pages 126- 127
18 Feb. Lab. 5	Le Chateliers principle Pages 137 - 144	Pre-lab: Pages 141 No Post-Lab questions. Pre-lab: 40% Lab. Report:60%

25 Feb. Lab. 6	Paper chromatography: Separation of Cations and Dyes Pages 149 - 154	Pre-lab: Page 151 No post lab questions. Pre-Lab = 40% Report = 40% Chromatogram must be attached to your lab report, and = 20% .
3 March Lab. 7	Metathesis Reactions Pages 155 - 164	Pre-lab: Pages 159 - 160 Post-Lab: Pages 164
10 March	Spring break: no lab sessions	Week off!
17 March Lab. 8	Alum synthesis and crystal growth Pages 193 - 220	Pages 193 - 210 Pre-lab: Pages 203 – 204, Post-Lab: Pages 209 – 210
24 March Lab. 9	Qualitative analysis Pages 221 - 263	Pre-lab: Pages 230 – 231 AND pages, 233 and 249 No Post-Lab Questions Pre-lab and Lab report 50%
31 March Lab. 10	Aspirin synthesis and analysis Pages 303 - 316	Pre-lab: Pages 305 – 306 Qns: 1 to 8, 11, 12 Pre-lab: Page 313, Qns. 4 - 8 Post-Lab: Page 307-308, Qns. 1,2, 3b, 4, 5 Answer these questions in detail
7 April Lab. 11	Transition metal chemistry (Coord. Complexes) Pages 266 - 274	Pre-lab: Page 271 Post-Lab: Page 274
14 April Lab. 12	Polymer chemistry (Rayon Synthesis) Pages 317 - 330	Pre-lab: Page 328 Post-Lab: Page 330
21 April	Lab for Monday students	
28 April	No lab	

Disabilities Statement:

Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. If you require accommodations for a disability, please contact the Coordinator for Students with Disabilities in the Center for Academic Services, located in Sadler Hall 11. Further information can be obtained from the Center for Academic Services, TCU Box 297710, Fort Worth, TX 76129, or at 817-257-7486.
Adequate time must be allowed to arrange accommodations and accommodations are not retroactive; therefore, students should contact the coordinator as soon as possible in the academic term for which they are seeking accommodations. Each eligible student is responsible for presenting relevant, verifiable, professional documentation and/or assessment reports to the Coordinator. Guidelines for documentation may be found at http://www.acs.tcu.edu/DISABILITY.HTM.