

CHEM 1112 General and Quantitative Chemistry Laboratory II

Course: Chemistry 1112 meets: Section 03: Thursday 2:00 – 5:50 p.m., STC310

Faculty contact:

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Office Hours: MWF 10:00-11:00 am & W 2:00-4:00 pm

Introduction: *General and Quantitative Chemistry Lab II*. 4 hours of laboratory per week. This course is part of the University Studies core courses and will meet criteria for laboratory science credits.

Course Materials:

Experiments in General Chemistry, 10th Edition, by R.A.D. Wentworth, published by Houghton Mifflin Company, New York, NY.

A pair of safety goggles and a padlock

Course Description

You must write down what you observe and measure during the time of the experiment.

Compose the laboratory report in sufficient detail to allow someone else to report the experiment exactly. The observations section of the report must be the original notes taken during the course of the experiment (take detailed, legible notes during the experiment). You can also submit a typed version of your observations if you wish, but you must submit your original notes taken during the experiment.

Laboratory Learning Outcomes/ Course Objectives:

1. Students will be able to apply knowledge and skills to safely operate lab equipment and handle, utilize and dispose of chemicals and properly organize and return equipment at the end of experiments.
2. Students will be able to apply knowledge and skills to obtain accurate data needed to complete the experiments.
3. Students will be able to use chemical theories and principles to interpret and discuss data to draw sensible conclusions.
4. Students will be able to apply the conclusions drawn from experiments to strengthen the concepts learned from lectures.
5. Students will be able to work cooperatively with your team members to obtain data and complete lab reports.

Lab Cleanliness

You will be expected to maintain a clean and orderly lab. At the end of every experiment, your bench space and hood space must be cleaned. Any equipment utilized during the experiment must be cleaned as well (balances, rotovaps, etc.). You should ensure that sinks and floors are also clean. If the lab space and equipment that you utilized during the experiment is left dirty and

unorganized, you will be penalized 20% on your lab report. The lab report has to be typed for grading.

Grading/Evaluation

The lab report with the lowest score will be dropped. The average of the grade for the rest of the eleven laboratories will constitute the laboratory grade.

Prelab	25%
Lab report	75%
Total	100%

You are required to submit Data and Post Lab /Lab Report in a timely manner. You will incur a 10% penalty for every day that your lab report is late; thus, if a lab report is 10 days late, you will receive a zero for that report. There will be absolutely no make-ups for laboratory experiments. If you miss a laboratory experiment that will be your dropped laboratory write-up. If you miss more than one laboratory experiment, you will be assigned a grade of zero for that assignment. **The last drop date for the course is October 31, 2015.** Grading will be based on a standard percentage scale: 100-90 = A; 89-80 = B; 79-70 = C; 69-60 = D; 59-below =F. Dishonest scholarship will earn an automatic zero (0) and initiate prosecution to the fullest extent. Incomplete grades may be given only if the student has a current average above 70% and is precluded from completion of the course by a documented illness or family crisis.

Attendance and Class Participation

All students are expected to attend classes on a regular basis and attendance will be recorded. The Department of Chemistry adheres to the attendance policy set by the University as stated in the most current Undergraduate Catalog. Being late by more than 5 minutes is equivalent to missing a lecture. Excessive absence will be reported to the Dean of the College and Dean of students. In addition, according to the TAMU-Commerce Procedure A13.02, Good class attendance will be necessary in order to pass this course.

Student Conduct Policy:

In order to create a "learning environment" free of disruption, you **MUST TURN OFF** your cell phones, MP3 players, PDA's, Pagers, and any other electronic devices before entering the class. Students are expected to comply with the student code of conduct as stated Student's Guidebook, Policies and Procedures, Conduct. If the student is failed to comply with the code of conduct and being disrespectful, disruptive to the instructor or the students of the class, the instructor reserves the right to dismiss the student from the class on the first offense. A second offense may constitute dismissal from the course with a failing grade. A and M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity expression will be maintained.

Academic Integrity and Honesty Policy:

Academic cheating, plagiarism, and other forms of academic misconduct may result in removal of the student from class with a failing grade or may in extreme cases result in suspension or expulsion from the University as described in the Code of Student Conduct section of the Student's Guidebook A&M-Commerce Procedure 13.99.99.R0.10

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

StudentDisabilityServices@tamuc.edu

Tentative Laboratory Calendar

You must bring a lock to your first laboratory meeting.

Safety goggles, long pants and closed toed shoes are required to be worn during all laboratory experiments.

Week	Date	Experiment
1	9/1-9/3	Check in equipment, Safety lecture & quiz
2	9/8-9/10	Experiment 12B: Softening Hard Water
3	9/15-9/17	Experiment 12A: A Molar Mass from Freezing Point
4	9/22-9/24	Experiment 13: The Rate of an Iodine Clock Reaction
5	9/29-10/1	Experiment 14A: Le Chatlier's Principle
6	10/6-10/8	Experiment 14B: Determination of an Equilibrium Constant
7	10/13-10/15	Experiment 15: The Relative Strengths of Some Acids
8	10/20-10/22	Experiment 16A: Equilibria with Weak Acids and Weak Bases
9	10/27-10/29	Experiment 16B: An Acid-Base Titration Curve
10	11/3-11/5	Experiment 17A: A Solubility Product Constant
11	11/10-11/12	Experiment 17B: Qualitative Analysis of Ag^+ , Cu^{2+} , Zn^{2+} , and Ca^{2+} ions
12	11/17-11/19	Experiment 18: Spontaneity
13	11/24-11/26	No Labs-Thanksgiving
14	12/1-12/3	Check-out