

General Chemistry Laboratory 1112

Summer II 2013

Contact Information

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Course Information

Department: Physical Sciences

Start Date: 07/15/2013

End Date: 08/15/2013

Modality: Face-to-Face

Credits: 1 hour

Lab: MTWTH 11:40 AM – 01:55 PM

Required Reading/Materials

Taylor & Russell, Chemistry 1112, Odessa College, Department of Chemistry

Courses Prerequisites

Course Corequisite: CHEM 1312

ICOs

1, 2, 3

Course Description

A laboratory course illustrates and reinforces principles and concepts of CHEM 1311 by use of quantitative experiments and demonstrates some real world applications.

Learning Outcomes

Upon successful completion of this course, students will:

1. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
2. Demonstrate safe and proper handling of laboratory equipment and chemicals.
3. Conduct basic laboratory experiments with proper laboratory techniques.
4. Make careful and accurate experimental observations.
5. Relate physical observations and measurements to theoretical principles.
6. Interpret laboratory results and experimental data, and reach logical conclusions.
7. Record experimental work completely and accurately in laboratory notebooks and
· communicate experimental results clearly in written reports.
8. Design fundamental experiments involving principles of chemistry and chemical instrumentation.
9. Identify appropriate sources of information for conducting laboratory experiments
· involving principles of chemistry.

Students with Disability

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the ADA of 1990. Students with special needs or issues pertaining to access and participation in this class must contact me immediately. Further, you may call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Cell Phone

When class begins, all phones need to be on silent or vibrate. If it is necessary for you to answer your phone or text message, then you need to step out into the hallway. If you consistently text message while in class, you will be asked to leave the lab. Your phone **cannot** be used as a calculator on exams.

Course Grade

Reports	70%
Mid-semester Exam	15%
Final Exam	15%

Pre-lab Exercises:

Before coming to lab that week, read through the procedure for the specific experiment and outline it on one of the handout sheets that was given. This exercise for each experiment is due when you come to the laboratory and must be completed **before** you can enter the laboratory. They will be worth 10 points of your report grade.

Reports

Report sheets with the experimental data, calculations, and assigned post laboratory questions will be due at the beginning of the following Monday laboratory. These pages should be legible and problems should show units and logic. Points will be deducted for unsafe conduct in the laboratory.

Missed Laboratory Sessions

Missed lab **cannot** be made up except under extreme circumstances and permitted by the instructor, special arrangements may be allowed.

Mid-Semester Exam

Covers the experiments of the first half of the semester. The test will have a short practicum with the rest of the exam being short answer format similar to the pre and post lab questions.

Final Exam

Covers the experiments of the second half of the semester. The test is short answer format, similar to the pre and post lab questions.

Expectations for Engagement – Face to Face Learning

To help make the learning experience fulfilling and rewarding, the following Expectations for Engagement provide the parameters for reasonable engagement between students and instructors for the learning environment. Students and instructors are welcome to exceed these requirements.

Reasonable Expectations of Engagement for Instructors

1. As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will
 - provided my contact information at the beginning of the syllabus;
 - respond to all messages in a timely manner through telephone, email, or next classroom contact; and,
 - notify students of any extended times that I will be unavailable and provide them with alternative contact information (for me or for my supervisor) in case of emergencies during the time I'm unavailable.
2. As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will
 - provide clear information about grading policies and assignment requirements in the course syllabus, and
 - communicate any changes to assignments and/or to the course calendar to students as quickly as possible.
3. As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will
 - return classroom activities and homework within one week of the due date and
 - provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

Reasonable Expectations of Engagement for Students

1. As a student, I understand that I am responsible for keeping up with the course. To help with this, I will
 - attend the course regularly and line up alternative transportation in case my primary means of transportation is unavailable;
 - recognize that the college provides free wi-fi, computer labs, and library resources during regular campus hours to help me with completing my assignments; and,
 - understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my personal computer equipment or internet service is unreliable.
2. As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to,
 - missing class when a major test is planned or a major assignment is due;
 - having trouble submitting assignments;
 - dealing with a traumatic personal event; and,
 - having my work or childcare schedule changed so that my classroom attendance is affected.

3. As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will

- seek out help from my instructor and/or from tutors;
- ask questions if I don't understand; and,
- attend class regularly to keep up with assignments and announcements.

Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "[Ask a Librarian](#)" service provide additional help.

Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).

Design for Completion

As part of the Design for Completion initiative, your Odessa College Student Success Coach and faculty mentor will help you stay focused and on track to complete your educational goals. If an instructor sees that you might need additional help or success coaching, he or she may submit a RetentionAlert. Your Student Success Coach or faculty mentor will contact you to work toward a solution.

LABORATORY ASSIGNMENTS

Date	Experiment	Experiment Description	Post-lab Quest.
7/15	Check-out, Safety Rules, Math Review	Math skills and CHEM 1111 skills needed for the lab.	None
7/16	Water Analysis p. 31	Omit part A. Can work in pairs.	p. 31 # 6 p. 34 # 7
7/17 – 7/18	Colligative Properties: Molar Mass of a Solid p. 173	Can work in pairs. All parts	Handout all questions
7/18	Graphing	In Rm 113	Handouts
7/22 (2 days)	Calorimetry p. 179	Can work in pairs. All parts	Handout all questions
7/24 (2 days)	Colorimetric Determination of Iron p. 17	All parts. Can work in pairs.	p. 23 # 7, 8, 9 p. 26 # 1, 2, 6
7/29 (2 days)	Ionization Constant of Weak Acid p. 121	All parts. Can work in threes.	p. 127 # 5 p. 131 # 1 - 6
7/31	Mid-semester Exam	Will cover labs of 1 st half, through pKa of Weak Acid.	
8/1	Qualitative Analysis Overview p. 35		p. 57 # 1,2,3,4,5,7,8,9,10, 11,12,13
8/5	Qualitative Analysis Group I p. 61	Work singly. All work to be kept in laboratory notebook.	p. 67 # 1, 2, 3, 6, 7
8/6 (2 days)	Qualitative Analysis Group III p. 87	Work singly. All work to be kept in laboratory notebook.	p. 99 # 1, 3, 4, 8, 9
8/8	Prep of Iron Oxalate Complex p. 133	Must complete Period 1; Harvesting your crystals from Period 2 must also be done. Can work in pairs.	p. 139 # 3, 4, 5, 6 p. 141 # 1 - 3
8/12 (2 days)	Redox Titration of Oxalate p. 143	All parts. Work in same pairs as last lab.	p. 147 # 1, 3, 4 p. 151 # 4, 5, 6
8/14	Final Exam	Check-in equipment	

Good Luck this Semester!!!!!!