

# *General Chemistry Laboratory 1112 E*

Fall 2011

## **Contact Information**

Instructor: Nichole Jackson

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Office Hours: M 2:00 – 5:00 PM

TTH 9:30 – 11:30 AM; TH 1:30 – 3:30 PM

W 8:00 – 9:00 AM

## **Course Information**

Department: Physical Sciences

Start Date: 08/22/2011

End Date: 12/08/2011

Modality: Face-to-Face

Credits: 1 hour

Lab: W 1:00 – 3:50 pm

## **Required Reading/Material**

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

## **Courses Prerequisites**

Course Corequisite: CHEM 1312

## **SCANS**

1, 3, 6, 8, 9

## **Course Description**

A laboratory course illustrates and reinforces principles and concepts of CHEM 1312 by use of quantitative experiments and demonstrates some real world applications.

## **Course Objectives & Learning Outcomes**

The objective is to gain working knowledge in handling scientific equipment safely and emphasize interpreting and reporting data in the scientific format.

Upon completion of this course, students will:

- (1) understand safety in a laboratory
- (2) understand the kinetics of how fast a reaction will occur
- (3) be able to interpret titration curves
- (4) be able to use problem-solving skills to determine an unknown

## **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 Wednesday laboratory. These pages should be legible and problems should show units and logic. Points will be deducted for late papers turned in after this deadline. Papers more than 2 class days late will **NOT** be accepted unless special permission has been obtained. Points will also be deducted for unsafe conduct in the laboratory.

## **Missed Laboratory Sessions**

You are responsible for making up any missed laboratory sessions. This must be done **before** the laboratory supplies are put away. Be sure to make arrangements with your instructor on make-ups. The laboratory report is still due at the same time as the rest of your class. If you can't make-up the lab before it is disassembled, special arrangements may have to be made. Remember the mid-semester exam and final exam will include information from laboratories that you have missed. **You will only be allowed to make up 2 missed experiments** regardless of the reasons.

## **Laboratory Notebook**

*A laboratory notebook will be kept during the Qualitative Analysis section of the semester. This notebook will be collected and is worth one lab grade (100 points) each time it is collected. Instructions for keeping the notebook can be found in your lab manual on page 47.*

**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.

### **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](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](#).

**LABORATORY ASSIGNMENTS****1112**

Date	Experiment	Experiment Description	Post-lab Quest.
8/24	Check-out, Safety Rules, Math Review	Math skills and Chem 1111 skills needed for the lab.	p. 13-16; omit #9
8/31	Graphing in Excel	In room 113	Handouts
9/7	Water Analysis p. 31	Omit part A. Can work in pairs.	p. 31 # 6 p. 34 # 7
9/14	Colligative Properties: Molar Mass of a Solid p.173	All parts. Can work in pairs.	p. 178 #1-4
9/21	Calorimetry p. 179	All parts. Can work in pairs.	p. 185 #1-4
9/28	Colorimetric Determination of Iron p. 17	All parts. Can work in pairs.	p. 23 # 7, 8, 9 p. 26 # 1, 2, 6
10/5	Mid-semester Exam/ Qualitative Analysis Overview p. 35	Will cover labs of 1 <sup>st</sup> half	p. 57 # 1,2,3,4,5,7,8,9,10, 11,12,13
10/12	Qualitative Analysis Group I p. 61	Work singly. All work to be kept in laboratory notebook.	p. 67 # 1, 2, 3, 6, 7
10/19; 10/26 (2 wks)	Qualitative Analysis Group III p. 87	Work singly. All work to be kept in laboratory notebook.	p. 99 # 1, 3, 4, 8, 9
11/2	Ionization Constant of Weak Acid p. 121	All parts. Can work in threes.	p. 127 # 5 p. 131 # 1 – 6
11/9	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
11/16	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
11/23	NO LAB	THANKSGIVING HOLIDAYS	
11/30	Final Exam	Check-in equipment	

**Good Luck this Semester!!!**