

## SPRING 2013 LAB SYLLABUS

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Department : Physical Sciences  
Course Title : General Inorganic Chemistry Lab II  
Section Name : CHEM\_1112\_E (0547)  
Scheduled : Thursday\_ 01:00pm-03:50pm  
Start Date : 01/24/13  
End Date : 05/02/13  
Modality : FACE-TO-FACE  
Credits : 1

### Instructor Information

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Name : Robert A. Morris  
OC Email : rmorris@odessa.edu  
OC Phone # : (432) 335-6596

### Course Description

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A laboratory course that illustrates and reinforces principles and concepts of CHEM 1312 through the use of qualitative and quantitative experiments that emphasizes interpreting and reporting of data. The student will focus on handling scientific equipment.

### Prerequisites/Co requisites

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Co requisite: CHEM 1312

### **Individual** Course Objectives

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1, 3, 6, 8, 9

### Course Objectives

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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
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### Cell Phone

No cell phone will be operating during lecture to include text messaging. Violators will be asked to leave the Lab. YOUR PHONE CANNOT BE USED AS A CALCULATOR ON QUIZZES OR EXAMS.

### Pre-lab Exercises:

Before coming to lab that week read through the procedure for the specific experiment and outlines 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 Thursday 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 makeup 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 (10 points) each time it is collected. Instructions for keeping the notebook can be found in your lab manual on page 47.

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### Required Readings/Materials

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You must purchase the following required readings/materials:

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

### Course Requirements (Lectures, Assignments and Assessments)

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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.

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Topic/Overview: This week focuses on

### SECTION E: THURSDAY LABORATORY ASSIGNMENTS

Date (Tentative)	Experiment	Experiment Description	Post-lab Quest.
01/24	Check-out, Safety Rules, Math Review	Math skills and Chem 1111 skills needed for the lab.	p. 13-16; omit #9
01/31	Graphing in Excel	In LRC	Handouts
02/07	Water Analysis p. 31	Omit part A. Can work in pairs.	p. 31 # 6 p. 34 # 7
02/14	Colligative Properties: Molar Mass of a Solid p.173	All parts. Can work in pairs.	p. 178 #1-4
02/21	Calorimetry p. 179	All parts. Can work in pairs.	p. 185 #1-4
02/28	Colorimetric Determination of Iron p. 17	All parts. Can work in pairs.	p. 23 # 7, 8, 9 p. 26 # 1, 2, 6
03/07	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
SPRING BREAK (OFFICES CLOSED – NO CLASSES) MAR 11-16 (MON-SAT)			
03/21	Mid-semester Exam		
03/28	Qualitative Analysis Group I p. 61	Work singly. All work to be kept in laboratory notebook.	p. 67 # 1, 2, 3, 6, 7
04/04; 04/11 (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
04/18	Ionization Constant of Weak Acid p. 121	All parts. Can work in threes.	p. 127 # 5 p. 131 # 1 - 6
04/25	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
05/02	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
05/09	Final Exam	Check-in equipment	

## Grading Policy

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|-------------------------------|--------------------|
| 1. Reports will be:           | 70% of your grade. |
| 2. Mid-semester Exam will be: | 15% of your grade. |
| 3. Final Exam will be:        | 15% of your grade. |

Percentage %	Grade
89.5+	A
89.4-79.5	B
79.4-69.5	C
69.4-59.5	D
<59	F

## Special Needs

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Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

## Learning Resource Center (Library)

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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

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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

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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

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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

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