

Course Syllabus

NOTE: This syllabus is subject to change during the semester. Please check this syllabus on a regular basis for any updates.

Department : Physical Sciences
Course Title : General Chemistry II
Section Name : CHEM_1312
Scheduled : 09:30AM – 11:35AM
Start Date : 07/11/2011
End Date : 08/11/2011
Modality : FACE-TO-FACE
Credits : 3

Instructor Information

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

Course Description

A lecture course that is a continuation of CHEM 1311, which includes: solutions, chemical kinetics, acids and bases, equilibrium, electrochemistry, thermodynamics, coordination chemistry, nuclear chemistry, organic chemistry, etc. The student will be involved in reading information or problems and using critical thinking skills and mathematics to organize the information or to arrive at an answer; also requires student writing skills in order to communicate the information acquired in a written format.

Prerequisites/Co requisites

Math 1314 and a minimum grade of "C" in CHEM 1311
Co requisite: CHEM 1112

[Scans](#)

1, 3, 6, 9

Course Objectives

Course Objectives & Learning Outcomes

The objective in any chemistry course is to develop problem-solving skills. To find strategies that help you develop the *chemical intuition* needed to understand chemical reasoning.

Upon completion of this course, students will be able to:

- (1) Understand the concept of chemical equilibrium, and the energies that drive chemical reactions: an introduction to the field of thermodynamics.

- (2) Apply the concept of chemical kinetics and the energy required to initiate a chemical reaction.
 - (3) Recognize oxidation and reduction half-reactions that can occur in electrolytic and galvanic cells
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COURSE ATTENDANCE

Course Attendance

Attendance is required and will be checked. To effectively master the material, your **attendance** for each class is necessary.

Required

Simple Scientific calculator (**Programmable calculators cannot be used on quizzes or exams**)

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 class. Your phone **cannot** be used as a calculator on quizzes or exams.

Homework

Assignments will be made, collected and graded for completeness. The homework assignments are to help you prepare for the exams because variations of these will be on the exam. You should attempt to work all of the homework questions. Answer key will be posted the day before it's due. Homework **will not be accepted** after two class days late.

Quizzes

There will be a short quiz given once each chapter is completed. The quizzes will include questions and problems over the current material but may require some knowledge of the previous material. Your lowest quiz grade will be dropped at the end of the semester. **If you miss a quiz, be prepared to make it up on the day you return to class.** otherwise you will not be allowed to make it up.

Examinations

(TENTATIVELY)

CHEM 1312

First Exam: Thursday, July 21th
Second Exam: Thursday, July 28th
Third Exam: Thursday, Aug 4th
Final Exam: Thursday, August 11, 9:20 a.m.-11:35 a.m.

Final Exam

The final exam is the ACS accredited exam and is comprehensive over **both** semesters!!!!!!

Required Readings/Materials

You must purchase the following **required** readings/materials:

Chemistry: The Molecular Science, 4th edition, J. W. Moore, C. L. Stanitski, and P.C. Jurs, Brooks/Cole, 2011.

Course Requirements (Lectures, Assignments and Assessments)

Chapter	Type	Description
<i>ELEVEN: Liquids, Solids, and Materials</i>	QUIZ	Particle interactions
<i>THIRTEEN: Chemical Kinetics: Rates of Reactions</i>	QUIZ	<i>Rate Laws</i>
FOURTEEN: Chemical Equilibrium	QUIZ	Le Chatelier's Principle
Eleven, Thirteen, and Fourteen	EXAM	
FIFTEEN: The Chemistry of Solutes and Solutions	QUIZ	Solubility
SIXTEEN: Acids and Bases	QUIZ	Ionization Constants
SEVENTEEN: Additional Aqueous Equilibrium	QUIZ	Buffer Solutions
Fifteen, Sixteen, and Seventeen	EXAM	
EIGHTEEN: Thermodynamics: Directionality of Chemical Reactions	QUIZ	Gibbs Free Energy
NINETEEN: Electrochemistry and it's Applications	QUIZ	Standard Potentials
TWENTY ONE: The Chemistry of the Main Group Elements	QUIZ	Metals, Halogens
Eighteen, Nineteen, and Twenty One	EXAM	

Homework Set

Chapter: Title	Quantity	Description
<i>ELEVEN: Liquids, Solids, and Materials</i>	14	8, 21, 28, 30, 32, 39, 40, 49, 51, 55, 58, 61, 86, 106
<i>THIRTEEN: Chemical Kinetics: Rates of Reactions</i>	15	9, 23, 25, 29, 31, 34, 37, 56, 57, 75, 76, 77, 85, 86, 130
FOURTEEN: Chemical Equilibrium	19	6, 14, 15, 20, 25, 33, 38, 40, 45, 50, 57, 59, 64, 67, 82, 84, 87, 99, 135
FIFTEEN: The Chemistry of Solutes and Solutions	15	15, 26, 27, 31, 38, 46, 49, 60, 69, 76, 81, 84, 102, 108, 121
SIXTEEN: Acids and Bases	24	7, 12, 14, 19, 20, 23, 25, 34, 36, 42, 47, 48, 52, 69, 70, 75, 77, 82, 84, 86, 97, 100, 111, 119
SEVENTEEN: Additional Aqueous Equilibria	15	3, 5, 15, 16, 24, 28, 33, 42, 49, 51, 53, 56, 60, 84, 90
EIGHTEEN: Thermodynamics: Directionality of Chemical Reactions	16	5, 10, 15, 21, 22, 29, 32, 35, 47, 48, 63, 65, 78, 82, 87, 125
NINETEEN: Electrochemistry and	7	6, 10, 12, 32, 33, 34, 38

it's Applications		
TWENTY ONE: The Chemistry of the Main Group Elements	6	3, 8, 12, 29, 30, 57

Grading Policy

Course Grading

- | | |
|-----------------------------|--------------------|
| 1. Chapter exams will be: | 60% of your grade. |
| 2. Chapter Quizzes will be: | 10% of your grade. |
| 3. Homework will be: | 10% of your grade. |
| 4. Final Exam will be: | 20% of your grade. |

Percentage %	Grade
>89.5	A
89.4-79.5	B
79.4-69.5	C
69.4-59.5	D
<59.4	F

Special Needs

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)

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 students and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).