

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 Inorganic Chemistry

Section Name : CHEM_1305_1

Start Date : 01/19/2011

End Date : 05/9/2011

Modality : FACE-TO-FACE

Credits : 3

Instructor Information

Name : Robert Morris

OC Email : rmorris@odessa.edu

OC Phone # : (432) 335-6596

Course Description

A lecture course designed as a first college-transfer course for students with some background in physical science. Covers such topics as chemical stoichiometry, atomic structure, bonding, formulas, equations, gas laws, solutions, 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

1. Pass all sections of the COMPASS exam and be eligible to take College Algebra.
2. Co requisite: CHEM 1105 lab

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) use dimensional analysis with proper attention to units and significant figures
- (2) balance chemical equations and use stoichiometric relationships to quantify reactant and product amounts
- (3) apply Gas Laws

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** more than 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.

Make-Up Exam

A make-up exam will be given on the last day of class before finals. If you miss an exam for any reason you will have the opportunity to take this exam. Any student who may wish to replace a lower exam may also take this exam. The make-up exam will be multiple choice questions covering the entire semester.

Examinations

(Tentatively)

First Exam:	Friday, February 18 th
Second Exam:	Friday, March 11 th
Third Exam:	Friday, April 22 th
Final Exam:	Monday, May 9 th , at 8:00 a.m.-10:30 a.m.

Required Readings/Materials

1. *Introductory Chemistry*, 3rd, Nivaldo J. Tro, Prentice Hall, 2009.
2. Simple Scientific Calculator

Course Requirements (Lectures, Assignments and Assessments)

HOMWORK SET

CHAPTER: Title	Quantity	Number
ONE: The Chemistry World	11	5, 6, 7, 9, 10, 11, 12, 13, 14, 17, 19
TWO: Measurement and Problem Solving	19	17, 20, 29a, 30c, 31c, 32c, 35b, 36c, 41a/c, 42c, 43, 49, 50, 53, 55a/b, 59a/b, 67a/d, 73a/c, 99
THREE: Matter and Energy	24	3, 10, 11, 12, 13, 16, 17, 19, 20, 21, 22, 23, 25, 27, 28, 29, 33, 35, 45, 49, 61, 63, 71, 81
FOUR: Atoms and Elements	38	7, 9, 10, 11, 15, 16, 17, 18, 20, 21, 22, 24, 25, 26, 28, 33, 35, 37, 43(a/b), 45(a/b), 47(a/b), 49(a/b), 53, 55, 57, 59, 61, 63, 65, 67, 69, 73(b/c), 77(a/b), 79, 87(a/b), 93, 97, 101
FIVE: Molecules and Compounds	TBD	HANDOUT
SIX: Chemical Composition	14	3, 17, 19(a/c), 25, 29(a/d), 45c, 51(a/d), 57, 65a, 69, 73, 77, 83, 97
SEVEN: Chemical Reactions	19	5, 7, 10, 11, 12, 13, 17, 19, 22, 24, 35, 51, 57, 61, 63, 73, 75, 83, 87
EIGHT: Quantities in Chemical Reactions	16	3, 5, 9, 10, 11, 17, 10, 23(a/c), 27, 29, 35(a/b), 45(a/b), 55, 69, 71, 73
NINE: Electrons in Atoms and the Periodic	12	17, 27, 31, 41, 43, 51, 53a, 55a, 65, 71, 77, 85

Table		
TEN: Chemical Bonding	19	4, 9, 11, 12, 14, 15, 16, 17, 18, 33(a /d), 35, 37, 39(a/b), 63, 67, 79, 85, 87, 93
ELEVEN: Gases	TBD	TBD
TWELVE: Liquids, Solids, and Intermolecular Forces	TBD	TBD
THIRTEEN: Solutions	TBD	TBD
FOURTEEN: Acids and Bases	TBD	TBD
FIFTEEN: Chemical Equilibrium	TBD	TBD
SIXTEEN: Oxidation and Reduction	TBD	TBD

***NOTE: The due dates are subject to change. Please check this syllabus on a regular basis for any updates.**

CHAPTER: Title	TYPE	DESCRIPTION
ONE: The Chemistry World	QUIZ	Chemistry
TWO: Measurement and Problem Solving	QUIZ	Numbers' Precision
THREE: Matter and Energy	QUIZ	Matter and Energy dependence
FOUR: Atoms and Elements	QUIZ	Atom's Structures
FIVE: Molecules and Compounds	QUIZ	Bonding
	EXAM	
SIX: Chemical Composition	QUIZ	How Chemicals Combined
SEVEN: Chemical Reactions	QUIZ	Types of Reactions
EIGHT: Quantities in Chemical Reactions	QUIZ	Stoichiometry
	EXAM	
NINE: Electrons in Atoms and the Periodic Table	QUIZ	Electron Arrangement
TEN: Chemical Bonding	QUIZ	Predict Atoms Arrangement
ELEVEN: Gases	QUIZ	Gas Laws
	EXAM	
TWELVE: Liquids, Solids, and Intermolecular Forces		Forces between Molecules
THIRTEEN: Solutions		Solubility and Saturation
FOURTEEN: Acids and Bases		H ⁺ and OH ⁻ combination
Chemical Equilibrium		Reactants remain constant
SIXTEEN: Oxidation and Reduction		Electron transfer
	EXAM	

Grading Policy

Course Grading

1. Chapter exams will be: 60% of your grade.
3. Chapter Quizzes will be: 10% of your grade.
4. Homework will be: 10% of your grade.
5. 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-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](#).