VALDOSTA STATE UNIVERSITY
Chemistry Department

Fall, 2013

Course Prefix and Number: CHEM 1212, Principles of Chemistry II
Contact/Credit: 3 lecture/3 credit hours
Catalog Course Description: This course is a continuation of the quantitative study of the physical and chemical behavior of matter in its several phases and a consideration of modern theories of bonding forces at the molecular level. Reaction kinetics, chemical equilibrium, oxidation-reduction and acid-base chemistry, electrochemistry, chemical thermodynamics, nuclear chemistry, and the descriptive chemistry of selected elements and their compounds are discussed.

Prerequisites: CHEM 1211 and CHEM 1211L.
Co-requisites: CHEM 1212L
Instructor: Dr. Gary L. Wood **Telephone Number:** (229) 333-5458 or 333-5230
Email: lwood@valdosta.edu

Office Location: BSC 3073 or 1036 **Office Hrs./Days:** M – F 10:00 – 11:00AM

Required Textbooks(s): CHEMISTRY: The Central Science Brown, LeMay et. al., 12th ed.
Additional required Materials: **C**alculator.

Student Outcomes: Upon successful completion of this course, the student will be able to:
1- Determine the order and rate constant of chemical reactions;
2- Write equilibrium constant expressions and calculate equilibrium constants;
3- Apply Le'Chatelier's principle;
4- Classify substances as acid or basic;
5- Perform buffer solution calculations;
6- Determine solubility product constants of salts;
7- Perform entropy and Gibbs free energy calculations;
8- Balance redox equations;
9- Classify substances as oxidizing or reducing agents;
10- Apply the Nerst equation;
11- Describe different radiation types;
12- Balance nuclear equations;
13- Draw common coordination compounds.

Final Exam:
The final is the American Chemical Society standard exam for CHEM 1212. It is a comprehensive multiple choice test. The exam will be given on:
Friday December 6, 2013 at 2:45 PM

Acessment Method: lecture / discussion / demonstrations / cooperative learning / Internet

Test and Grades: Hour Exams will be given on the following dates:

Sept. 6 Test I
Oct. 4 Test II
Oct. 25 Test III
Nov. 22 Test IV

All students are required to take tests on the assigned dates. Your lowest test grade will be dropped. The numerical equivalents of the letter grades are: A, 100 - 90; B, 89 - 80; C, 79 - 70; D, 69 - 60; F, below 60

NO MAKE-UP EXAMS WILL BE GIVEN
NO MAKE-UP OR LATE HOMEWORK WILL BE ACCEPTED
Hour Exams: 50%
Final Exam: 25%
Homework Problems: 15%
Weekly Quizzes: 10%

Special Services Information: Students requiring classroom accommodations or modification because of a documented disability should discuss this need with the professor at the beginning of the quarter. Students not registered with the Special Services Program should contact the Special Services Office in Nevins Hall Room 1115. The phone number is 245-2498.

Class Rules: Cell phone should be turned-off and left off for the lecture. No food or drink is allowed in the lecture hall. No coming-and-going during the lecture, plan on staying in your seat for the entire lecture.

Course Outline:

Week	Topic		Week	Topic	
Aug. 12	intro., Chapter 14		Oct. 7	Chapter 19	
Aug. 19	Chapter 14		Oct. 14	Chapter 19	
Aug. 26	Chapter 15		Oct. 21	Chapter 20	Test III
Sept. 2	Chapter 15	Test I	Oct. 28	Chapter 20	
Sept. 9	Chapter 16		Nov. 4	Chapter 23	
Sept. 16	Chapter 16		Nov. 11	Chapter 23	
Sept. 23	Chapter 17		Nov. 18	Chapter 21	Test IV
Sept. 30	Chapter 17	Test II	Nov. 25	Thanksgiving Break	
			Dec. 2	Chapter 22	

Take-home assignments and on-line quizzes:
Take home assignments are assigned throughout the semester. These assignments are due at the start of class on the assigned dates. No late papers will be accepted.

Weekly on-line quizzes will be assigned. The 10-minute quiz will be posted in BlazeView and you will need to take it outside of class.

START WORKING ON PROBLEMS AS THE MATERIAL IS COVERED, DO NOT WAIT UNTIL LAST DAY TO SUBMIT ANSWERS!