Chemistry 212
FALL 2018

Welcome to Chemistry 212 for the Fall Semester of 2018. This course is the continuation of Chemistry 211 and will cover many basic principles of chemistry. Topics this semester will include: colligative properties, kinetics, equilibrium, acids and bases, solubility, thermodynamics, oxidation and reduction, nuclear chemistry and an introduction to inorganic and bio- chemistry.

Course Title/Number	Principles of Chemistry II - CHM 212 Sec 101
Semester /Year	Fall 2018
Days/Time	MWF, 1300p - 1350p
Location	S 465
Instructor	Price, William
Office	S 490
Phone	696-3156
E-Mail	pricew@marshall.edu
Office Hours	MW 1400 -1600
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to www.marshall.edu/academic-affairs/policies/. Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/Inclement Weather/Dead Week/Students with Disabilities/Academic Forgiveness/Academic Probation and Suspension/Academic Rights and Responsibilities of Students/Affirmative Action/Sexual Harassment

Course Description: From Catalog

Principles of Chemistry II. 3 hrs. I, II, S. A continuation of Chemistry 211 with emphasis on the inorganic chemistry of the representative elements and transition metals. 3 lec. (PR: *C* or better in CHM 211; CR: CHM 218)

The table below shows the following relationships: How each student learning outcome will be practiced and assessed in the course.

Course student learning outcomes	How students will practice each outcome in this course	How student achievement of each outcome will be assessed in this course
Students will To become familiar with the vocabulary of modern chemistry	Lecture, quizzes, practice assignments, SAPLING	Exams, quizzes and SAPLING
Students will gain insight into the ever-expanding role of chemistry within the context of society, medicine, materials and environment.	Lecture, quizzes, practice assignments, SAPLING	Exams, quizzes and SAPLING

Students will learn and reinforce logical strategies for solving quantitative problems.	Lecture, quizzes, practice assignments, SAPLING	Exams, quizzes and SAPLING

Required Texts, Additional Reading, and Other Materials

1. *OpenStax Chemistry,* https://openstax.org/details/books/chemistry (This is a free resource)
2. Sapling Learning Online Homework
3. non-text calculator for quizzes, tests, and exams (it must not have keys for the alphabet)
1. #2 pencil and black or blue ink pen for tests/quizzes

Electronic Device Policy

All cell phones and pagers must be either turned off or onto vibrate mode during class. Laptops must be turned off and placed on the floor during the lecture period. During examinations, all electronic devices except calculators must be inaccessible. Students **MUST BRING A CALCULATOR** to class for all lectures and exams. Calculators that are part of a cell phone or smart phones are **not** acceptable for use during an exam or quiz.

Grading Policy

There will be approximately 11 quizzes, SAPLING assignments, five midterm exams and one cumulative final exam. Quizzes will count for 100 points total (one quiz will be dropped), midterm exams will constitute a total of 500 points, while the final exam will be worth 100 points. **BONUS:** completion of *SAPLING* homework can result in an extra 15 points. Exam and quiz material will be drawn from the homework, the lecture, and the text. See schedule of tentative exam dates. Missed exams or quizzes may be made up, with a valid University excuse, on **Thursday Dec 13th**. If you are planning on making up work on this make-up day you **must** let me know via email by 4 pm Wednesday, December 5, 2018. Cutoffs for grades will be no higher than those listed below, but may be lowered if appropriate.

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A ≥ 90.00; 90.00 < **B** ≥ 80.00; 80.00 < **C** ≥ 70.00; 70.00 < **D** ≥ 60.00; 60.00 < **F**

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Attendance Policy

I strongly encourage you to come to class so that you can more fully understand the material that you will read in the book. If you are absent, obtain the notes from another student or online. In situations where the student is aware of the absence for an exam or quiz in advance, arrangement for accommodations must be made prior to the absence. Otherwise, the designation of an absence as excused and any accommodation for that absence will be decided by the Dean of Students. If a student decides to not complete the course, he or she must visit the registrar and complete the appropriate paperwork to remove the course from his or her schedule. The last day to withdraw from a single class is **Friday, October 26, 2018**.

* Reading assignments and exam dates are approximate and may be subject to change

Tentative Course Schedule*

To make the most of each class period, reading and assignments should be completed before lecture.

Week	Reading	Notes	Week	Reading	Notes
1: 8/20-8/24	*Chapter 10* *Chapter 11*	Liquids & Solds Solutions & Colloids	**9:** 10/15 -10/19	*Chapter 15*	Ionic Equilibria
2: 8/27-8/29	*Chapter 11*	Solutions & Colloids	**10:** 10/22	*Chapters 14 & 15*	Midterm III
2: 8/31	*Chapters 10 & 11*	Midterm I	**10:** 10/24 – 10/26	*Chapter 16*	Thermodynamics
3: 9/5-9/7	*Chapter 12*	Kinetics	**11:** 10/29-11/2	*Chapter 16* *Chapter 17*	Thermodynamics Electrochemistry
4: 9/10-9/14	*Chapter 12* *Chapter 13*	Kinetics Equilibrium I	**12:** 11/5 – 11/9	*Chapter 17*	Electrochemistry
5: 9/17 – 9/21	*Chapter 13*	Equilibrium I	**13:** 11/12		Midterm IV
6: 9/24 – 9/26	*Chapter 13*	Equilibrium I	**13:** 11/14 – 11/16	*Chapter 19*	Coordination Chem
6: 9/28	*Chapters 12 & 13*	Midterm II	**14:** 11/26–11/30	*Chapter 19* *Chapter 21*	Coordination Chem Nuclear Chemistry
7: 10/1 - 10/5	*Chapter 14*	Acid/Base Equilibrium	**15:** 12/3	*Chapters 19 & 20*	Midterm V
8: 10/8-10/12	*Chapter 14*	Acid/Base Equilibrium	**15:** 12/5 – 12/7	*Review*	

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************** FINAL EXAM 9:50 AM, Saturday December 8, 2018 ************

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