Course Title/Number	Principles of Chemistry II / CHM 212, Section 102
Semester/Year	Fall 2014
Days/Time	4:00-5:15 pm Tuesday & Thursday
Location	473 Science Hall
Instructor	Dr. Bin Wang
Office	241L Byrd Biotechnology Science Center
Phone	(304) 696-3456
Email	wangb@marshall.edu
Office Hours	1:00-4:00 pm Monday & Wednesday, or by appointment
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 <u>www.marshall.edu/academic-affairs</u> and clicking on "Marshall University Policies." You may also access the policies directly by going to <u>http://www.marshall.edu/academic-affairs/?page_id=802</u> 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:**

A continuation of CHM 211 with emphasis on the inorganic chemistry of the representative elements and transition metals. 3.00 credits. Prerequisite: grade of C or better in CHM 211

## **Required Texts, Additional Reading, and Other Materials**

- 1. *Chemistry: The Science in Context, Third Edition* by Thomas R. Gilbert, Rein V. Kirss, Natalie Foster, and Geoffrey Davies; W. W. Norton & Company, Inc.
- 2. SmartWork access for the textbook
- 3. access to MU Online and a Marshall email account
- 4. non-programmable calculator for quizzes, tests, and exams (it must not have keys for the alphabet)
- 5. #2 pencil for quizzes, tests, and exams

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 identify and explain trends in physical and chemical properties.	<ul><li>lectures</li><li>textbook readings</li><li>homework</li></ul>	• tests and quizzes
Students will understand how the energy of a system governs the rate and extent of chemical reactions.	<ul><li>lectures</li><li>textbook readings</li><li>homework</li></ul>	• tests and quizzes
Students will understand how the relative amounts of chemical species govern the rate and extent of reactions.	<ul><li>lectures</li><li>textbook readings</li><li>homework</li></ul>	• tests and quizzes
Students will apply mathematical techniques to formulate and solve problems in chemistry.	<ul><li>lectures</li><li>textbook readings</li><li>homework</li></ul>	• tests and quizzes

## **Grading Policy**

homework	20	points		
quizzes	5	points		
tests (4 during the semester)	50	points		
final exam	25	points		
	100	TOTAL POINTS		
Grading Scale: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: < 60				

**Attendance Policy** 

Attendance is highly recommended. In general, missed assignments and exams may not be made up except in the case of an excused absence, according to university policy. In the case that class is cancelled due to inclement weather or an emergency on the day of a scheduled test, the test will be given in the next scheduled class period. If student tardiness becomes a significant distraction during lecture, the instructor reserves the right to refuse admission to tardy students.

#### **Miscellaneous Policies**

Please silence cell phone ringers during class or exams. The instructor reserves the right to answer any ringing cell phones during lecture, or to dismiss the offending student. Use of cell phones / PDAs / MP3 players and similar devices during tests, quizzes, and exams will be considered academic dishonesty. Recording of lectures without the instructor's permission is prohibited. Laptops should not be used during class without permission. The content of this course will adhere closely to the information contained in the textbook. You may use other resources (alternate texts, notes from other professors, etc.). If you find information that contradicts something written in the textbook or said in the lecture, please consult Dr. Wang. Class announcements may be made occasionally via email to your university email address. Please check it on a regular basis. Lecture slides will be posted at MU Online.

Week of:	Chapter	Торіс		
8/25	10, 11	Intermolecular Forces, Solutions		
9/1	11	Solutions		
9/8	14	Thermodynamics		
9/15	14; TEST 1 (10, 11, 14) on 9/18	Thermodynamics		
9/22	15	Kinetics		
9/29	15, 16	Kinetics, Equilibrium		
10/6	16; TEST 2 (15, 16) on 10/9	Equilibrium		
10/13	17	Aqueous Equilibrium		
10/20	17, 18	Aqueous Equilibrium, Transition Metals		
10/27	18	Transition Metals		
	10/31 is last day to withdraw from full-semester courses			
11/3	TEST 3 (17, 18) on 11/4; 19	Electrochemistry		
11/10	19, 21	Electrochemistry, Nuclear Chemistry		
11/17	21	Nuclear Chemistry		
11/24	Thanksgiving/Fall Break			
12/1	TEST 4 (19, 21) on 12/2; Review			
12/6 SATURDAY 10:00 AM FINAL EXAM (location TBA)				

### **Approximate Course Schedule**