

Course Title/Number	<b>Principles of Chemistry II / CHM 212, Section 203</b>
Semester/Year	Spring 2016
Days/Time	1:00-1:50 PM MWF
Location	465 Science Hall
Instructor	Dr. Bin Wang
Office	241L Byrd Biotechnology Science Center
Phone	(304) 696-3456
Email	<a href="mailto:wangb@marshall.edu">wangb@marshall.edu</a>
Office Hours	1:30-4:30 PM Tuesdays (S 460) & Thursdays (BBSC 241L), 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 <a href="http://www.marshall.edu/academic-affairs/policies/">http://www.marshall.edu/academic-affairs/policies/</a> Academic Dishonesty / Excused Absences / University Computing Services' Acceptable Use / Inclement Weather / Dead Week / Students with Disabilities / Academic Dismissal / Academic Forgiveness / Academic Probation and Suspension / 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. *Principles of General Chemistry, Third Edition* by Martin S. Silberberg; McGraw-Hill, 2013
2. ALEKS access
3. Access to MU Online and a Marshall email account
4. Non-programmable calculator
5. #2 pencil for quizzes, tests, and exams

### Course Outcomes:

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 style="list-style-type: none"> <li>• lectures</li> <li>• textbook readings</li> <li>• ALEKS exercises</li> </ul>	<ul style="list-style-type: none"> <li>• tests and quizzes</li> <li>• ALEKS exercises</li> </ul>
Students will understand how	<ul style="list-style-type: none"> <li>• lectures</li> </ul>	<ul style="list-style-type: none"> <li>• tests and quizzes</li> </ul>

the energy of a system governs the rate and extent of chemical reactions.	<ul style="list-style-type: none"> <li>• textbook readings</li> <li>• ALEKS exercises</li> </ul>	<ul style="list-style-type: none"> <li>• ALEKS exercises</li> </ul>
Students will understand how the relative amounts of chemical species govern the rate and extent of reactions.	<ul style="list-style-type: none"> <li>• lectures</li> <li>• textbook readings</li> <li>• ALEKS exercises</li> </ul>	<ul style="list-style-type: none"> <li>• tests and quizzes</li> <li>• ALEKS exercises</li> </ul>
Students will apply mathematical techniques to formulate and solve problems in chemistry.	<ul style="list-style-type: none"> <li>• lectures</li> <li>• textbook readings</li> <li>• ALEKS exercises</li> </ul>	<ul style="list-style-type: none"> <li>• tests and quizzes</li> <li>• ALEKS exercises</li> </ul>

### Grading Policies:

ALEKS exercises	20	points
quizzes (4 during the semester)	10	points
tests (4 during the semester)	50	points
final exam	20	points
	<b>100</b>	<b>TOTAL POINTS</b>
<b>Grading Scale:</b> A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: < 60		

### Attendance Policy:

Attendance for this class is highly recommended. In general, missed quizzes and tests 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 quiz/test, the quiz/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 quizzes, tests, and exams will be considered academic dishonesty. Recording of lectures without the instructor's permission is prohibited. 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 occasionally be made via email to your university email address. Please check it on a regular basis. Lecture slides will be posted at MU Online.

**Tentative Schedule:**

	Monday	Wednesday	Friday
Week 1 1/11 - 1/15	Syllabus, ALEKS, Chapter 12	Chapter 12	Chapter 12
Week 2 1/18 - 1/22	<i>Martin Luther King, Jr. Holiday</i>	Chapter 13	Chapter 13
Week 3 1/25 - 1/29	Chapter 13	Chapter 16	Chapter 16
Week 4 2/1 - 2/5	Chapter 16	Quiz 1 (Chapters 12, 13, and 16)	Review Chapters 12, 13, and 16
Week 5 2/8 - 2/12	TEST 1 (Chapters 12, 13, and 16)	Chapter 17	Chapter 17
Week 6 2/15 - 2/19	Chapter 17	Chapter 18	Chapter 18
Week 7 2/22 - 2/26	Chapter 18	Chapter 19	Chapter 19
Week 8 2/29 - 3/4	Chapter 19	Quiz 2 (Chapters 17-19)	Review Chapters 17-19
Week 9 3/7 - 3/11	TEST 2 (Chapters 17-19)	Chapter 20	Chapter 20
Week 10 3/14 - 3/18	Chapter 20	Chapter 21	Chapter 21
<i>3/18 is last day to drop an individual course</i>			
Week 11 3/21 - 3/25	<i>Spring Break</i>		
Week 12 3/28 - 4/1	Chapter 21	Quiz 3 (Chapters 20 & 21)	Review Chapters 20 & 21
Week 13 4/4 - 4/8	TEST 3 (Chapters 20 & 21)	Chapter 22	Chapter 22
Week 14 4/11 - 4/15	Chapter 22	Chapter 23	Chapter 23
Week 15 4/18 - 4/22	Chapter 23	Quiz 4 (Chapters 22 & 23)	Review Chapters 22 & 23
Week 16 4/25 - 4/29	TEST 4 (Chapters 22 & 23)	Review	Review
<b>4/30 SATURDAY 10:00 AM FINAL EXAM (location TBA)</b>			