Course Title/Number	Principles of Chemistry I/CHM 211, Section 107	
Semester/Year	Fall 2018	
Days/Time	Tuesday & Thursday 16:00-17:15 PM	
Location	473 Science Hall	
Instructor	Dr. Bin Wang	
Office	241L Byrd Biotechnology Science Center	
Phone	(304) 696-3456	
E-Mail	wangb@marshall.edu	
Office Hours	Wednesday 2:00-3:30 PM (BBSC 241L) and	
	Thursday 2:00-3:30 PM (L.A. Session room, S 460)	
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	
	http://www.marshall.edu/academic-affairs/policies/	
	Academic Dishonesty/Academic Dismissal/Academic Forgiveness/	
	Academic Probation and Suspension/Affirmative Action/Dead Week/	
	D/F Repeat Rule/Excused Absences/Inclement Weather/Sexual	
	Harassment/Students with Disabilities/University Computing Services'	
	Acceptable Use	

#### **Course Description:**

A study of the properties of materials and their interactions with each other. Development of theories and applications of the principles of energetics, dynamics and structure. Intended primarily for science majors and pre-professional students. 3 credit hours. Prerequisites: grade of 23 or better in Math ACT, grade of C or better in CHM 111, or passed placement exam.

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

- 1. OpenStax Chemistry, <a href="https://openstax.org/details/books/chemistry">https://openstax.org/details/books/chemistry</a> (This is a free resource)
- 2. Access to the Sapling Learning online homework system
- 3. Access to MUOnLine and a Marshall email account
- 4. Non-programmable calculator
- 5. #2 pencil for quizzes, tests, and exam

Student Learning Objectives	Objective will be taught through	Objective will be assessed by
Become familiar with the atomic structure of matter.	<ul> <li>lectures</li> <li>textbook readings</li> <li>Sapling Learning exercises</li> <li>learning assistance sessions</li> </ul>	<ul> <li>tests and quizzes</li> <li>Sapling Learning exercises</li> <li>questions in learning assistance sessions</li> </ul>

Develop analytical skills to solve problems presented in a chemical context.	<ul> <li>lectures</li> <li>textbook readings</li> <li>Sapling Learning exercises</li> <li>learning assistance sessions</li> </ul>	<ul> <li>tests and quizzes</li> <li>Sapling Learning exercises</li> <li>questions in learning assistance sessions</li> </ul>
Understand how energy is utilized in natural systems.	<ul><li>lectures</li><li>textbook readings</li><li>Sapling Learning exercises</li><li>learning assistance sessions</li></ul>	<ul><li>tests and quizzes</li><li>Sapling Learning exercises</li><li>questions in learning assistance sessions</li></ul>
Describe and predict the basic chemical bonding patterns that explain the physical and chemical properties of matter.	<ul><li>lectures</li><li>textbook readings</li><li>Sapling Learning exercises</li><li>learning assistance sessions</li></ul>	<ul><li>tests and quizzes</li><li>Sapling Learning exercises</li><li>questions in learning assistance sessions</li></ul>

## **Grading Policies:**

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Sapling Learning exercises (online homework)	20	points		
quizzes (4 during the semester)	10	points		
tests (4 during the semester)	50	points		
final exam	20	points		
	100	TOTAL POINTS		
learning assistance sessions	extra 2	points		
<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.

#### **Miscellaneous Policies:**

Please silence cell phone ringers during class or exams. Use of cell phones/PDAs/MP3 players and similar devices during quizzes, tests, and exam 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 MUOnLine.

# **Tentative Schedule:**

Tentative Sch	Tuesday	Thursday		
Week 1	Syllabus, Sapling Learning,	Ţ		
8/20-8/24	Chapter 1	Chapter 1		
Week 2	1	Chapter 2		
8/27-8/31	Chapter 2			
Week 3	Chapter 3	Chambar 2		
9/3-9/7		Chapter 3		
Week 4	Chapter 4	Quiz 1 (Chapters 1-3)		
9/10–9/14	Chapter 4	Quiz 1 (Chapters 1-3)		
Week 5	Review Quiz 1 questions	TEST 1 (Chapters 1-3)		
9/17-9/21	Chapter 4	TEST 1 (Chapters 1 3)		
Week 6	Review Test 1 questions	Chapter 5		
9/24-9/28	Chapter 4	Chapter 5		
Week 7	Chapter 5	Chapter 6		
10/1-10/5		2		
Week 8	Chapter 6	Quiz 2 (Chapters 4-5)		
10/8-10/12	•			
Week 9 10/15–10/19	Review Quiz 2 questions	TEST 2 (Chapters 4-5)		
Week 10	Chapter 7 Review Test 2 questions			
10/22–10/26	Chapter 7	Chapter 7/8		
10/22 10/20	10/26 is the last day to drop a full s	emester individual course		
Week 11				
10/29-11/2	Chapter 8	Quiz 3 (Chapters 6-7)		
Week 12	Review Quiz 3 questions	TEST 3 (Chapters 6-7)		
11/5-11/9	Chapter 8	TEST 5 (Chapters 0-7)		
Week 13	Review Test 3 questions	Chapter 9		
11/12-11/16	Chapter 9	Chapter 7		
Week 14	Thanks	giving Break		
11/19-11/23	Thunks			
Week 15	Quiz 4 (Chapters 8-9)	Review Quiz 4 questions		
11/26-11/30		Chapter 9		
Week 16	TEST 4 (Chapters 8-9)	Review Test 4 questions		
12/3-12/7	, ,	Final review		
12/8 SATURDAY 10:00 AM FINAL EXAM (location TBA)				