CHEMISTRY 211
Principles of Chemistry I
Section 203, Spring 2015

Class Information
Time: Mon, Weds, Fri, 1:00pm – 1:50am
Location: 465 Science Building

Instructor Information
Instructor: John Rakus, Ph.D. **Email:** rakus@marshall.edu **Phone:** 304-696-6627
Office: 478 Science Building **Office Hours**: MTWRF, 9:30am-10:30am; by appointment and walk in.
Website: http://science.marshall.edu/rakus/

Required Items
Text: Gilbert *et al*. Chemistry, 3rd Ed. W.W. Norton & Company.
Additional: Scientific calculator, Turning Technologies clicker. SmartWork account.

Catalog Listing
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.

Course Description
The purpose of this course is to provide a foundational understanding of chemical principles that will allow students to better understand such topics as atomic structure, energetics and bonding in the broader context of how our world works. This understanding can be applied in other chemistry and science courses. Though prior knowledge of chemistry is not a requirement, this course has a strong algebra component and proficiency in algebra must be demonstrated.

Prerequisites: 1.) 23 or higher on Math ACT or 2.) CHM 111 (C or above) or 3.) passed placement exam.

Grade Policy
You will have four in-class hour-long exams on **January 30**, **February 27**, **March 25** and **April 24** and a comprehensive final examination on **May 2**. In addition, you will be required to complete 10 online quizzes through SmartWork. The lowest quiz grade will be dropped (the dates below refer to the due date of the quiz). You are also required to participate in class through clicker response questions that will be presented during lecture. Clickers are graded based on percent of responses throughout the semester. Answering 90% or more of the questions will result in full credit. Answering between 80 and 89% of the questions will result between 90 and 99% credit. 70-79% of responses will result in between 80-89% credit. *Etc.*

Letter Grade Assignments

90-100	A
80-89	B
70-79	C
60-69	D
00-59	F

Grade Breakdown

Clicker Responses	**10%**
Exam 1 (Jan 30)	**10%**
Exam 2 (Feb 27)	**15%**
Exam 3 (Mar 25)	**15%**
Exam 4 (Apr 24)	**15%**
SmartWork Quizzes	**15%**
Final (May 2)	**20%**

Learning objectives	**Objective will be taught through…**	**Objective will be assessed by…**
Become familiar with the atomic structure of matter.	-Lecture -Online assignments -Classroom response questions -In-class example problems	-Exams -Online assignments
Develop analytical skills to solve problems presented in a chemical context.	-Lecture -Online assignments -Classroom response questions -In-class example problems	-Exams -Online assignments
Understand how energy is utilized in natural systems.	-Lecture -Online assignments -Classroom response questions -In-class example problems	-Exams -Online assignments
Describe and predict the basic chemical bonding patterns that explain the physical and chemical properties of matter.	-Lecture -Online assignments -Classroom response questions -In-class example problems	-Exams -Online assignments

Student Conduct

I hold my students to the same expectations about conduct and behavior while in class that I have for myself. It is my responsibility to you to provide the best learning environment of which I am capable and, in return, I believe everyone in this classroom deserves the right to be treated with dignity and respect. I encourage questions, interaction and curiosity but I also implore you to consider your classmates' interests in class. I will not demand your unwavering attention if you do not wish to provide it, but I simply ask that you do not disrupt the learning environment in which I am trying to provide.

Technology Policy

Cell phones, tablets and other digital devices are allowed during lecture time provided that they are kept silent and are not used in a disruptive manner. Should I feel that someone is using a device disruptively, I reserve the right to confiscate the device for the remainder of class and/or ask the student to leave. Devices are expressly forbidden during examinations and will be considered a violation of the Academic Integrity Policy.

Attendance Policy

Attendance is strongly encouraged. I will not keep attendance (beyond registration requirements) and attendance is not graded.

University Policies

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802

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

Loose Schedule of Course Topics

Week	Dates	Class Topics	Assignment	Notes
1	January 12 – January 16	Introduction, Chapter 1.		
2	January 19 – January 23	Chapter 2.	SmartWork 1: Jan 25 (11:59pm)	Jan 19: No class Jan 20: W period begins
3	January 26 – January 30	Chaps. 2-3.	**Exam 1: Jan 30**	
4	February 2 – February 6	Chaps. 3-4.	SmartWork 2: Feb 8 (11:59pm)	
5	February 9 – February 11	Chapter 4.	SmartWork 3: Feb 15 (11:59pm)	
6	February 16 – February 20	Chaps. 4-5.	SmartWork 4: Feb 22 (11:59pm)	
7	February 23 – February 27	Chapter 5.	**Exam 2: Feb 27**	
8	March 2 – March 6	Chapter 6.	SmartWork 5: Mar 8 (11:59pm)	
9	March 9 – March 13	Chapter 7.	SmartWork 6: Mar 15 (11:59pm)	
10	March 16 – March 20	No class, Spring Break.		
11	March 23 – March 27	Chaps. 7-8.	**Exam 3: Mar 25**	Mar 27: end W period
12	March 30 – April 3	Chapter 8.	SmartWork 7: Apr 2, (11:59pm)	
13	April 6 – April 10	Chaps. 8-9.	SmartWork 8: Apr 9 (11:59pm)	
14	April 13 – April 17	Chapter 9.	SmartWork 9 Apr 16, (11:59pm)	
15	April 20 – April 24	Chapter 9.	**Exam 4: April 24**	
16	April 27 – May 1	Chapter 10.	SmartWork 10: **May 1**, (11:59pm) **Final Exam: May 2**	Final Exam is from 10am to noon on May 2.