



Marshall University Syllabus
College of Science
Chemistry

Course

CRN: 5447 – CHM 211 – Section 205

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.

Credits

Undergraduate 3 credit hours

Prerequisites

PR or CR: CHM 217; PR: Math ACT of 23 or better, or C or better in CHM 111, or pass placement exam

Term/Year

Fall 2018

Class Meeting Days/Times

MW 12:00 to 1:15 PM

Location

MUGC Academic Bldg., Room #213

Academic Calendar

For beginning, ending, and add/drop dates, see the [Marshall University Academic Calendar](http://www.marshall.edu/academic-calendar/) (URL: <http://www.marshall.edu/academic-calendar/>).

Instructor

Dr. Manjira Kumar (PhD)

Contact Information

Office: Room #3202 TPB

Office Hours: by appointment

Office Phone: 304-720-4001 ext. 3611

Marshall Email: ghoshkumar@marshall.edu

Required Texts and Materials

Text: *Chemistry*, <https://openstax.org/details/books/chemistry>

Calculator: You will need a basic, non-programmable calculator. You should be able to find a suitable calculator for \$15 or less. Calculators with alphanumeric and/or graphing capabilities are **not permitted** during quizzes and exams. Additionally, cell phone calculators are off limits during quizzes, exams, and during normal lecture periods.

Course Student Learning Outcomes

Course Curriculum/Learning Objectives: Lectures and assignments will cover chapters 1 through 9 in the text.

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
Become familiar with the atomic structure of matter.	-Lecture -In-class problems -Review session	-Exams
Develop analytical skills to solve problems presented in a chemical context.	-Lecture -In-class problems -Review session	-Exams
Understand how energy is utilized in natural systems.	-Lecture -In-class problems -Review session	-Exams
Describe and predict the basic chemical bonding patterns that explain the physical and chemical properties of matter.	-Lecture -In-class problems -Review session	-Exams

Dates to Remember

First day of classes: August 20, **Labor Day Holiday:** Sept 3, **Freshman/Sophomore midterm grades due:** Oct 8, **Last Day to Drop:** Oct 26 **Thanksgiving:** Nov 19 – 23, **Dead Week:** Dec 3 – 7, **Last day of classes:** Dec 7, **Final grades due:** Dec 17

The final exam will be given to all CHM 211 students on **Saturday Dec 8th (10:00 AM to 12:00 PM)**

Grading Policy

Exams: Four exams including the cumulative final, will be administered over the course of the semester. These exams will be strictly limited to the confines of the normal class period and to the time limit set for the final exam (2 hours). All exams will be taken independently, and without the use of cell phones, books, and class notes, unless otherwise specified.

Points distribution:

Exam 1: 100 points

Exam 2: 100 points

Exam 3: 100 points

Exam 4: 100 points

Total 400 points

Grading Scale: **A** \geq 90%, **B** \geq 80 to 89%, **C** \geq 70 to 79%, **D** \geq 60 to 69%, and **F** $<$ 60%.

Attendance/Participation Policy

Participation/Attendance: Regular attendance and participation is expected. **Make-up exams will only be given if the absence has been excused by the university.** For example, any student involved in an official school function or an unavoidable commitment to his or her employer can arrange to take an exam at another time than the scheduled time. Should attendance problems arise, please contact me before you miss, if possible. Additionally, please be on time in order to avoid disruption to your peers and my instruction.

Electronic Device Policy: All cell phones and pagers must be turned to vibrate during class. Recording of lectures without my permission is strictly

prohibited. 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 are not acceptable during an exam or quiz.

University Policies

By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) by going to [MU Academic Affairs: University Policies](http://www.marshall.edu/academic-affairs/policies/). (URL: <http://www.marshall.edu/academic-affairs/policies/>)

- Academic Dishonesty Policy
- Academic Dismissal Policy
- Academic Forgiveness Policy
- Academic Probation and Suspension Policy
- Affirmative Action Policy
- Dead Week Policy
- D/F Repeat Rule
- Excused Absence Policy for Undergraduates
- Inclement Weather Policy
- Sexual Harassment Policy
- Students with Disabilities (Policies and Procedures)
- University Computing Services Acceptable Use Policy

Tentative Course Schedule

Week of	Chapters/Sections	Topics
08/20	1	Properties & Measurements
08/27	2	Atoms, Molecules, Ions
09/03	3	Moles, Formulas, Molarity
09/10	(review 09/10, exam 1: 09/12)	
09/17	4	Stoichiometry
09/24	5	Thermochemistry
10/01	5 (review 10/01, midterm 10/03)	Thermochemistry
10/08	6	Electronic Structure
10/15	6	Periodic Properties
10/22	7	Bonding, Lewis Structures
10/29	7	Bonding, Polarity
11/05	8 (review 11/05, exam 11/07)	Valence Bond Theory
11/12	8	MO Theory
11/19	Thanksgiving break	
11/26	9	Gases
12/03	9 (review 12/05)	
Final Exam	1-9 (final exam 12/08)	Cumulative final exam

- *Instructor reserves the right to change the syllabus if needed for the fulfillment of the course objective and outcome*
- *Use of cell phone is not allowed during class lecture and lab*