

Chemistry 111: Foundations of Chemistry

Fall 2018

(CRN:1386 – CHM 111 – Section 103)
Department of Chemistry, Marshall University

Instructor: Jenifer Markiewicz

Office: S 408

Office Hours: MW 9-12, TR 1-4, & by appointment

Credit Hours: 3.00 hours

Course Time and Location: TR 11-12:15 S 473

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Course description and purpose: This course will introduce students to basic chemical facts and concepts. Topics will include mathematics review, metric units, dimensional analysis, nomenclature, properties of matter, atomic structure, stoichiometry, Lewis dot structures, and balancing equations. Additional topics will be covered if time permits. CHM 111 is intended to prepare students for CHM 211.

Prerequisite: MTH ACT of 21 or better, or C or better in MTH 127 or equivalent

Required Materials:

- **Text:** *Foundations of College Chemistry Abridged for CHM 111* by Hein, 15th Edition
- **ALEKS:** account access available online for \$60/6 months or at the bookstore for \$81.75/6 months.
- **Calculator:** You will need a basic, non-programmable scientific 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 exams. Additionally, cell phone calculators may also not be used during exams. Most importantly, gain practice with the calculator you intend to use for the exam *before* attempting to use it on the exam.

Grading:

- **Exams (80%):** Six exams, including the cumulative final exam, will be administered over the course of the semester. All exams will be strictly limited to the confines of the normal class period and will be taken independently, without the use of cell phones, books, and class notes unless otherwise specified. You may, however, use a 3" x 5" notecard (front and back okay) of handwritten notes on all regular exams only. The lowest exam grade, excluding the final exam, will be dropped.

- **Homework (20%):** Homework will be accessible through ALEKS. The homework consists of seven assignments:
 - The first assignment is a knowledge check, which is *not graded*. The purpose of this assignment is gauge your initial knowledge of chemistry. It's completely okay to not know the answers! Answering the questions honestly helps the ALEKS AI system better understand you, and further, select follow-up questions that are designed specifically for your current ability.
 - The second assignment, "Day 1 Homework," consists of a math review designed to sharpen the problem-solving skills necessary for this course.
Due date: 08/24/18, 11:59 p.m.
 - The third, fourth, fifth, sixth, and seventh assignments correspond to the material covered on the regular exams, each of which has its own due date.

Unit 1 Homework due date: 09/10/18, 11:59 p.m.

Unit 2 Homework due date: 09/26/18, 11:59 p.m.

Unit 3 Homework due date: 10/15/18, 11:59 p.m.

Unit 4 Homework due date: 10/31/18, 11:59 p.m.

Unit 5 Homework due date: 11/28/18, 11:59 p.m.

To receive the maximum 20 percentage points, *all* deadlines must be met. Between 11/29/18 and 11:59 p.m., 12/07/18, there will be an opportunity to finish any topics/objectives remaining in your ALEKS pie.

To summarize, the number of homework points awarded is based on punctuality *and* completion of the assignments.

- **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 to avoid disrupting your peers and my instruction.

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

Course Curriculum: Lectures and assignments will cover chapters 1 through 11 in the text.

Electronic Device Policy: All cell phones and pagers must be turned to vibrate during class. Recording of lectures without the instructor's permission is prohibited. During examinations, all electronic devices, except calculators, must be inaccessible. Calculators that are part of a cell phone or PDA are not acceptable during an exam.

University Policies: All university policies, which can be found at this link http://www.marshall.edu/wpmu/academic-affairs/?page_id=802, will be observed.

Important Dates:

First day of classes: August 20 **Labor Day Holiday:** September 3 **Freshman/Sophomore Midterm grades due:** October 8 **Last Day to Drop:** October 26 **Thanksgiving Break:** November 19-24 **Dead Week:** December 3-7

Final Exam: Saturday, December 8, 10:00 a.m.

Approximate Schedule:

Week of:	Chapter	Topics:
8/20	T: Course Intro R: Ch. 1	Introduction to Chemistry
8/27	T: Ch. 2 R: Ch. 2, Ch. 3	Standards for Measurement/ Elements and Compounds
9/3	T: Ch. 3, R: Review	Elements and Compounds
9/10	T: Exam 1 (1-3) R: Ch. 4	Properties of Matter
9/17	T: Ch. 4, Ch. 5 R: Ch. 5	Properties of Matter/ Early Atomic Theory and Structure
9/24	T: Review R: Exam 2 (4 & 5)	
10/1	T: Ch. 6 R: Ch. 6, Ch. 7	Nomenclature of Inorganic Compounds/ Quantitative Composition of Compounds
10/8	T: Ch. 7 R: Review	Quantitative Composition of Compounds
10/15	T: Exam 3 (6 & 7) R: Ch. 8	Chemical Equations
10/22	T: Ch. 8, Ch. 9 R: Ch. 9	Chemical Equations/ Calculations from Chemical Equations
10/29	T: Review R: Exam 4 (8 & 9)	
11/5	T: Ch. 10 R: Ch. 10	Modern Atomic Theory and the Periodic Table
11/12	T: Ch. 11 R: Ch. 11	Chemical Bonds: The Formation of Compounds from Atoms
11/19	Thanksgiving Break	
11/26	T: Review R: Exam 5 (10 & 11)	Review/Exam
12/3	T: Review R: Review	Review for Final
12/8	1-11	Cumulative final exam