

Course Syllabus Fall 2017

Chemistry 111: Foundations of Chemistry

(CRN:4546 – CHM 111 – Section 131)
Department of Chemistry, Marshall University

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Office Hours: By appointment

Credit Hours: 3.00 hours

Course Time and Location: TR 9:30-10:45 MUGC Academic Bldg., Room #213

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. ISBN: 978-1-11991-870-7.
- **Calculator:** You will need a basic, non-programmable calculator. You should be able to find a suitable calculator for \$15 or less.

Grading:

- **Exams (75%):** 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 (75 minutes) and will be taken independently, without the use of cell phones, books, and class notes unless otherwise specified.
- **Quizzes (15%):** Quizzes will be given at the end of each class period and should take no more than 10-15 minutes to complete. As with the exams, they too will be taken independently, without the use of cell phones, books, and class notes unless otherwise specified. The three lowest quiz grades will be dropped.
- **Homework (10%):** Homework will be assigned after each lecture period and will be collected at random (minimally once per week). While grading the homework, my focus is on completion rather than perfection. This is an opportunity for me to give you feedback and for you to seek out help, if necessary.

- **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 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 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 or PDA are not acceptable during an exam or quiz.

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 21 **Labor Day Holiday:** September 4 **Freshman/Sophomore Midterm grades due:** October 9 **Last Day to Drop:** October 27 **Thanksgiving Break:** November 20-25 **Dead Week:** December 4-8

The final exam will be given to all CHM 111 students on Saturday, December 9th at 10:00 a.m.

Approximate Schedule:

Week of:	Chapters/Sections	Topics:
8/21	T: 1.1-1.4 R: 2.1-2.4 (Q1: 1.1-1.4)	Introduction to Chemistry/Standards for Measurement
8/28	T: 2.5-2.9 (Q2: 2.1-2.4) R: 3.1-3.2 (Q3: 2.5-2.9)	Standards for Measurement/Elements and Compounds
9/4	T: 3.3 & Rev. (Q4: 3.1-3.2) R: 4.1-4.3 (Q5: 3.3)	Elements and Compounds/Properties of Matter

9/11	T: Exam 1 (Ch. 1-3) R: 4.4-4.6 (Q6: 4.1-4.3)	Properties of Matter
9/18	T: 5.1-5.3 (Q7: 4.4-4.6) R: 5.4-5.6 (Q8: 5.1-5.3)	Early Atomic Theory and Structure
9/25	T: 6.1-6.3 (Q9: 5.4-5.6) R: Exam 2 (Ch. 4 & 5)	Nomenclature of Inorganic Compounds
10/2	T: 6.4-6.6 (Q10: 6.1-6.3) R: 7.1-7.2 (Q11: 6.4-6.6)	Quantitative Composition of Compounds
10/9	T: 7.3-7.5 (Q12: 7.1-7.2) R: 8.1-8.3 (Q13: 7.3-7.5)	Quantitative Composition of Compounds/Chemical Equations
10/16	T: Exam 3 (Ch. 6 & 7) R: 8.4-8.6 (Q14: 8.1-8.3)	Chemical Equations
10/23	T: 9.1-9.3 (Q15: 8.4-8.6) R: 9.4-9.5 (Q16: 9.1-9.3)	Calculations from Chemical Equations
10/30	T: 10.1-10.3 (Q17: 9.4-9.5) R: Exam 4 (Ch. 8 & 9)	Modern Atomic Theory and the Periodic Table
11/6	T: 10.4-10.5 (Q18: 10.1-10.3) R: 11.1-11.3 (Q19: 10.4-10.5)	Modern Atomic Theory and the Periodic Table/Chemical Bonds: The Formation of Compounds from Atoms
11/13	T: 11.4-11.6 (Q20: 11.1-11.3) R: 11.7-11.10 (Q21: 11.4-11.6)	Chemical Bonds: The Formation of Compounds from Atoms
11/20	Thanksgiving Break	
11/27	T: Review (Q22: 11.7-11.10) R: Exam 5 (Ch. 10 & 11)	
12/4	T: Review R: Review	Dead Week: Review for Final Exam
12/9	Cumulative Final Exam	Chapters 1-11