

Chemistry 1211, Fall 2008
8:00 -- 9:25 TR (Rogers 204)

Lecturer: Dr. Michael B. McGinnis
Office Hours: MWF 9:00-10:30; TR noon-1:00
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Course Description:

First course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature. gas laws. The integrated laboratory will introduce chemical techniques and methods for quantitative analysis.

Corequisite:

Principles of Chemistry I Laboratory (CHEM 1211L)

Materials:

Required: *Chemistry, 5th Ed.*, McMurry and Fay, Prentice Hall: 2007
Required: Access to WebCT and Mastering Chemistry

Expected Course Outcomes:

The student will:

- formulate physical, abstract, and mathematical models of events or operations that explain phenomena.
- construct and communicate reasoned scientific arguments and respond to critical comments.
- identify unifying concepts and processes that run across science disciplines.
- use the periodic table to identify patterns and predict interactions that take place among elements.
- recognize that science and society interact through the products and processes formed by each
- identify energy transformations and relate the tendency toward disorder with the Second Law of Thermodynamics.
- recognize that science distinguishes itself from other ways of knowing through the use of empirical standards, logical argument, and skepticism.
- understand how knowledge is produced and refined in science.

Course Coverage:

Chapter 1 – Chemistry: Matter and Measurement	Chapter 6 – Ionic Bonds and Some Main Group Chemistry
Chapter 2 – Atoms, Molecules, Ions	Chapter 7 – Covalent Bonds and Molecular Structure
Chapter 3 – Formulas, Equations, and Moles	Chapter 8 – Thermochemistry: Chemical Energy
Chapter 4 – Reactions in Aqueous Solution	Chapter 9 – Gases: Their Properties and Behavior
Chapter 5 – Periodicity and Atomic Structure	

Grading:

In-Class Quizzes (10 points each) & Workshops (In-class problem sets, 1 or 2 quiz grades)	12%
WebCT and Mastering Chemistry Assignments	8%
Hour Exams (3 total)	60%
Final Exam	20%

Letter grades will be calculated and assigned on an absolute scale as follows:

A >90.0% **B** 77.0 - 89.9% **C** 67.0 - 76.9% **D** 57.0 - 66.9% **F** <57%

Grade cut-offs *might* be lowered if the class averages are below normal. Grade cut-offs will *not* be raised.

Prior to mid-semester, you will receive feedback on your academic performance in this course.

Attendance:

Class attendance is mandatory. Students are expected to be in class and are responsible for all material assigned and covered. Prior arrangements must be scheduled BEFORE an excused absence. Work missed for absences due to emergencies or sicknesses must be made-up within a week of returning to class. Any unexcused or without prior arrangement absence will be recorded as a zero.

Quizzes:

A minimum of 8 in-class quizzes will be given with the lowest 2 being dropped. A pen/pencil and a calculator will be allowed for the quizzes. Quizzes may or may not be announced. There will be no make-up quizzes; but for excused absences, a grade will be calculated by using the next exam grade. A zero will be given for unexcused absences.

Hour Examinations:

Three examinations will be given. A pen/pencil and a calculator will be allowed for the exams. Each exam is 75 minutes in length and will be given during the lecture time period for that day. Exact coverage is listed below and will be discussed several days before the exam in case of changes. Group study sessions (whether before an exam or anytime during the semester) will be offered upon request. NOTE: Make-up exams *may* differ in format and/or coverage.

Final Examination (ACS Exam):

The American Chemical Society (ACS) Standardized exam will be given during the final exam period. The ACS exam will be multiple-choice questions and cover all topics that a *typical* 1st semester undergraduate general chemistry course covers. Please take this exam very seriously! Study guides are available from the Chemistry Club.

Academic Dishonesty Policy:

Simply, academic dishonesty will not be tolerated. Any violation OR attempted violation will result in an F for the course AND will be reported to the Judicial Council under the NGCSU academic integrity code. The complete academic integrity code can be found in the NGCSU Student Handbook.

External Plagiarism Check:

This course uses plagiarism prevention technology. Students have the option of submitting papers online through a plagiarism prevention service or allowing the instructor to submit hard copies of these papers. The papers may be retained by the service for the sole purpose of checking for plagiarized content in future student submissions.

Class Evaluations:

Class evaluations at NGCSU are now conducted on-line through Banner. Evaluation of the class is considered a component of the course and students will not be permitted to access their course grade until the evaluation has been completed. The evaluations will be accessible beginning one week prior to Final Exam week.

Fire Drill Procedure:

In the event of a fire signal students will exit the building in a quick and orderly manner through the nearest hallway exit. Learn the floor plan and exits of this building. Do not use elevators. Crawl on the floor if you encounter heavy smoke. Assist disabled persons and others if possible without endangering your own life.

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WEEK OF:	LECTURE COVERAGE	SUGGESTED PROBLEMS	NOTES
Aug. 20-22	Introduction, Chapter 1	Ch 1:all	
Aug. 25-29	Chapter 1 & 2	Ch 2:all	
Sept. 1-5	Chapter 2		M: Labor Day
Sept. 8-12	Chapter 3	Ch 3:all	
Sept. 15-19	Chapter 3		R: Exam 1 (1-3)
Sept. 22-26	Chapter 4	Ch 4:all	
Sept. 29 - Oct. 3	Chapter 4		F: Mid-Term
Oct. 6-10	Chapter 5	Ch 5:all	T: Last day to drop F: Fall Break
Oct. 13-17	Chapter 6	Ch 6:all	
Oct. 20-24	Chapter 6		National Chemistry Week R: Exam 2 (4-6)
Oct. 27-31	Chapter 7	Ch 7:all	
Nov. 3-7	Chapter 7 & 8	Ch 8:all	
Nov. 10-14	Chapter 8		
Nov. 17-21	Chapter 9	Ch 9:all	
Nov. 24-25			T: Exam 3 (7-9) WRF: Thanksgiving Break
Dec. 1-2	Review		
Thursday, December 4, 2008; 8:00 – 10:00		ACS Final Exam	

Homework/problems: Problems suggested (assigned?) *should be* completed and will be discussed in class. Although no 'official' grade is associated with these problems, it is to YOUR benefit that you complete them AND ask questions when you do not understand certain topics or concepts.

*updated 8/27/08