

Chemistry 1151, Fall 2008
11:15 – 12:10 MWF (Rogers Hall 307)

Lecturer: Dr. Holly E. Carpenter

Office Hours: MWF 10:00-11:00 AM, TR 11:10 AM -12:40 PM, or by appointment

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Course Description:

First course in a two-semester sequence covering elementary principles of general, organic and biochemistry designed for allied health professions majors. Topics to be covered include elements and compounds, chemical equations, nomenclature, and molecular geometry.

Materials:

Required: *General, Organic, and Biochemistry 6th edition*, Denniston, Topping, Carat

Required: WebCT

Expected Course Outcomes:

- The student will formulate physical, abstract, and mathematical models of events or operations that explain phenomena.
- The student will construct and communicate reasoned scientific arguments and respond to critical comments
- The student will identify unifying concepts and processes that run across science disciplines.
- The student will use the periodic table to identify patterns and predict interactions that take place among elements.
- The student will investigate the various types of bonds between atoms.
- Making observations of macroscopic phenomena the student will generalize what is happening at the microscopic level between molecules.
- The student will classify different types of energy (heat, light, electrical, mechanical, chemical, nuclear, etc.) as potential or kinetic energy or energy contained in a field. The student will identify energy transformations and relate the tendency toward disorder with the Second Law of Thermodynamics.
- Using the EM spectrum, the student will investigate the dual nature of light.
- The student will recognize that science and society interact through the products and processes formed by each.
- The student will recognize that science distinguishes itself from other ways of knowing through the use of empirical standards, logical argument, and skepticism. The student will understand how knowledge is produced and refined in science.

Grading:

In-class announced quizzes (10 points each), Workshops (In-class problem sets, 10-20 points),

Take-home problems/homework (10-20 points) 20% (100 points)

Three Hour Exams and one Comprehensive Final Exam (4 total) 80% (400 points)

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

A >90.0% **B** 80.0 - 89.9% **C** 70.0 - 79.9% **D** 60.0 - 69.9% **F** <60%

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 may request 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 documented 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.

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.

Quizzes, Take-home quizzes and workshops:

A pen/pencil and a calculator will be allowed for the in-class 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:

Four examinations will be given including the final. A pen/pencil and a calculator will be allowed for the exams. Each exam is 55 minutes in length and will be given during the lecture time period for that day. Tentative 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. The Final Exam will be COMPREHENSIVE.

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.

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.

Chapter Coverage:

1. Chemistry
2. The Structure of the Atom and the Periodic Table
3. Structure and Properties of Ionic and Covalent Compounds
4. Calculations and the Chemical Equations
5. States of matter
6. Solutions
7. Energy, Rate and Equilibrium
8. Acids and Bases and Oxidation-Reduction
9. The Nucleus, Radioactivity and Nuclear Medicine

WEEK OF:	Lecture Coverage	Assigned Problems*	NOTES
August 20	Introduction, Chapter 1	Ch 1: all	
August 25	Chapters 1 & 2	Ch 2: all	
September 1	Chapter 2		M: No classes on labor day
September 8	Chapter 3	Ch 3: all	
September 15	Chapters 3 & 4		Friday, Exam 1 (Ch. 1-3)
September 22	Chapter 4	Ch 4: all	
September 29	Chapter 5	Ch 5: all	
October 6	Chapter 5		T: Last day to drop Friday, no class (Fall break)
October 13	Chapter 6	Ch 6: all	
October 20	Chapter 6 & 7	Ch 7: all	National Chemistry Week Wed.: Exam 2 (Ch. 4-6)
October 27	Chapter 7		
November 3	Chapter 8	Ch 8: all	
November 10	Chapters 8 & 9	Ch 9: all	
November 17	Chapter 9		
November 24			M: Exam 3 (7-9) WRF: Thanksgiving Break
December 1	Special topic/Review		T: Classes end
Monday, December 8, 2008, 10:30-12:30		Final Exam	

***Assigned problems will not be turned in for a grade but it is highly recommended that you complete the assigned problem sets.**