

**SYLLABUS**  
**CHE 122A, Basic Chemical Principles**  
**Fall 2008**

**Credit:** Four semester hours  
**Instructor:** Dr. Jerry Cannon  
**Office:** MCC 415  
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**Office hours:** M-F, 2:00-5:00 P.M.

**Course Meeting time and location:** 8:00 AM-9:15 AM, Hederman 306

**Text:** Introduction to General, Organic, and Biochemistry, Bettelheim and March, eighth edition. The same text will be used for CHE 123. A solutions manual is recommended and is available through the Bookstore.

**Prerequisites:** There are no prerequisites for this course, however a general knowledge of algebra is assumed.

**Disclaimer:** Although we expect to conduct the course according to the following, we reserve the right to make modifications if circumstances dictate.

**Course Description:** This is an introductory level course in chemistry. It is designed to give the pre-nursing and related majors the necessary background in basic chemistry for a continuation course in CHE 123, Introduction to Organic and Biochemistry. Course materials will be related to medical topics whenever possible. The course consists of three hours of lecture and three hours of laboratory.

**Rationale:** This course will provide a general understanding of chemistry and its application to nursing and related professions. Development of problem solving and critical thinking skills will be stressed.

**Attendance:** Your attendance at all class meetings is expected. If a regular class meeting is missed, it is the student's responsibility to obtain any assignments or instructions that were given by the instructor. Attendance will be taken at the beginning of each class period. If you arrive after this time, you must come by after class to change from being marked absent to late. **Being late for class three times will count as one absence. One point will be deducted from the final average for each unexcused absence after the first three.** Missing a class is not an excuse for not preparing for the next class meeting or not having assignments ready on time or being prepared for a quiz. Make-up exams are given only for excused absences and must be completed before the graded tests are returned. **A grade of F will be given upon having 8 absences, whether excused or unexcused.** See MC catalog, page 55.

**Grading:** Four tests will be given during the semester; each with a value of 100 points. Approximately eight ten-point quizzes will be given throughout the semester. One of the quiz grades may be dropped. Missed quizzes may not be made up. **If a quiz is missed for any reason, that will automatically be your drop grade.** Additional missed quizzes or missed exams due to unexcused absences will result in a grade of zero. The comprehensive final examination will have 200 points. The lecture grade will be based on the percent of the total points attained from the four exams, the quiz grades and the final examination. The laboratory grade will count 20% of the total grade.

The grading scale is:	90 - 100%	A
	80 - 89%	B
	70 - 79%	C
	60 - 69%	D
	Below 60%	F

**THE LAST DAY TO DROP A CLASS WITHOUT RECEIVING A GRADE IS OCTOBER 31.**

**Assignments:** The assignment always is to read the next ten pages of the text. Exercises from the text will be assigned for each chapter. These assignments may or may not be taken up and graded, but they are highly recommended. They are frequently the source for test material.

**Academic integrity:** Mississippi College students are expected to be honest. Please refer to the *Mississippi College General Bulletin* for discussion of plagiarism and cheating.

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Topics	Learning Objectives
1. Matter, Energy and Measurement	The student will be familiar with the measuring systems and units used in chemical calculations.
2. Atoms, Molecules, Ions Electronic Structure, Bonding	The student will be familiar with general structure and nomenclature of atoms, molecules, and ions. This will include the electronic structure of atoms as well as covalent bonding in molecules and ionic bonding in compounds.
3. Chemical reactions	The student will have a general knowledge of precipitation reactions and oxidation-reduction reactions.
4. Gases	The student will have knowledge of the Kinetic Molecular Theory of gases and how volume, pressure and temperature of gases are related.
5. Colloids and solutions	The student will have knowledge of various concentration units and colligative properties.
6. Intermolecular forces, liquids	The student will have a general understanding of intermolecular forces and how they relate to the phases of matter.
7. Reaction rates and equilibrium	The student will have knowledge of factors affecting rates of reactions and equilibrium.
8. Acids and bases, pH	The student will have knowledge of factors affecting rates of reactions and equilibrium.
9. Nuclear chemistry	The student will have knowledge of the concepts of nuclear chemistry.