

Syllabus  
Chemistry 101 Section 3T  
10:30-11:50 a.m. T. & Th.  
ROOM 135 Beauregard

**Chemistry 101: General Chemistry: Spring 2005**

**Catalog Description: Chem. 101.** General chemistry I. 3-3-0. Prerequisite or co-requisite: Math 101. The nature and properties of matter including the common elements and their compounds. Periodic classification, atomic and molecular theories, and the relation of atomic and molecular structure to chemical behavior. For students needing only one year of chemistry or as preparation for various health related programs-Nursing, Dietetics, etc. An introduction to CHEM 208. Degree credit will not be given for both CHEM 101 and 105. This course is also available via Internet (WWW in class schedule). Basic computer knowledge is required for students enrolled in the Internet section. (40.0501)

**Instructor:**

Martha K. Newchurch

Phone: 985- 448-4503

Office hours: 10:00-11:30 a.m. and 1:00-4:00 p.m. MWF and by appointment.

Office: 122 Beauregard Hall

E-mail: Martha.Newchurch@nicholls.edu

**Prerequisite: Co-requisite:** Math 101.

**Required Text:** *Introductory Chemistry* : Fifth Edition by Zumdahl

**Required Supplements:** Microcomputer tutorial-Trinity "Concentrated Chemical Concepts". Available in the computer lab in room 245 A. Beauregard. Hall, the Cenac Center and the university library computer room 1st floor. Online homework is available but not mandatory. Department of Physical Sciences. Students should also have available a scientific calculator.

Blackboard: Chemistry 101 is available online. Announcements, syllabus, notes etc will be posted.

**Course Goal:** To provide the chemical background in inorganic chemistry needed to comprehend the nature and properties of matter including studies of the common elements and their compounds on the basis of periodic classification, atomic and molecular theories, and the relation of atomic and molecular structure to chemical behavior, elementary stoichiometric calculations and solution chemistry. To present this discipline in an interesting and logical sequence so that the beginning chemistry student may develop a basic understanding of the principles of inorganic chemistry and overcome misconception about chemistry and fear of science as a whole.

**Student Outcome Objective.** After completing a one term preparatory course students should be able to do the following: Louisiana Content Standards

- a. Identify questions and concepts that guide scientific investigations: SI-H-A1, A2
- b.. Read, write and talk about chemistry using a basic chemistry vocabulary; PH-H-A,B1,
- c. Observe and describe the objective by the properties of the materials from which they are made; PS-E-A1,A3
- d. Describe the properties of the different states of matter and identify the conditions that cause matter to change states; PS-E-A4, D1
- e. Write routine chemical formulas; PS-H-C3,C5
- f. Write balanced equation to represent a variety of chemical reactions; PS-H-D3
- g. Set up and solve chemistry problems; manipulate and analyze quantitative data using the SI system; PS-H-A1
- h. "Think" chemistry on an atomic or molecular level in fundamental theoretical areas—

to visualize what happens in a chemical change; PS-H-B1, D4, C4

**Course Content:**

Course Outline: This is a tentative schedule and subject to change at the discretion of the instructor.

Chapter one: Chemistry: An Introduction

Chapter two: Measurements and Calculations

Chapter three: Matter and Energy

Chapter four: Chemical Foundations: Elements, Atoms and Ions

Test One:

Chapter ten: Modern Atomic Theory

Chapter five: Nomenclature

Chapter six: Chemical reactions: An Introduction

Chapter seven: Reactions in aqueous Solutions

Test Two:

Chapter eight: Chemical Composition

Chapter nine: Chemical Quantities

Test three:

Chapter twelve: Gases

Chapter eleven: Chemical Bonding 11.1-11.5 only

Chapter thirteen: Liquids and Solids

Chapter fourteen: Solutions

Chapter fifteen: Acids and Bases

Test four:

Chapter sixteen: Equilibrium

**Course Requirements:**

Students will be evaluated on course content using four 100 point exams and one 200 point final exam. The lowest exam grade will be dropped when GPA is calculated. On-line homework is available but is not required. Students find the practice problems very valuable in learning content material. Students will be assigned a password to access the on-line homework. A detailed explanation will be given in class.

The exams will include both subjective and objective questions. Students are encouraged to "think" chemistry, not just memorize information. Students are also encouraged to participate in class discussions. The instructor will hold a study session before each exam. Attendance is not required but is certainly helpful. This will give the student an opportunity to clear up any questions on course material.

Extra Credit

Five points extra credit will be given for a journal article relating to chemistry.

Present a copy of the article and written summary describing the article any time during the semester up until one week before the final exam. (will be given only once)

**Method of Evaluation:**

There will be four exams given during the semester. Each exam is worth 100 points. The final is comprehensive and will be worth a total of 200 points. Because of the large size of the class and in order to avoid the problems of make-up exams, one exam grade will be dropped. You may not drop the final grade

Grade: 100-90%=A

89-80%=B

79-70%=C

60-69%=D

below 60=F

**Attendance Policies:** Regular class attendance is essential. Absences for students in Freshman Division must be excused. Consult the student handbook for Nicholls' policies on absences.

**Make-up Policy:** If a student misses a class, he or she is still responsible for the material covered during that class period. If a student misses more than one exam, he/she must have a documented excuse to take a make-up. Make-up must be completed within two class periods of returning to school.

**Academic Honesty Policy:** Academic dishonesty will not be tolerated in any form and proceedings will follow the guidelines recommended in the "Code of Student Conduct" manual.

**Semester Withdrawals:** Drop Date: April 7, 2005 is the final day to drop with a "W". If you wish to drop the course, it is your responsibility to do so officially. Please take care of business.

**Academic Disabilities Policy:** "If you have a documented disability that requires assistance, you will need to register with the Office of Disability Services for coordination of your academic accommodations. The Office of Disability Services is located in Peltier Hall Room 100-A. The phone number is (985) 448-4430 (TDD 449-7002). Please notify the Instructor if you have a disability, so accommodations can be made. It is the general policy of Nicholls State University to assure equal opportunity for all qualified persons. Reasonable accommodations of qualified persons with disabilities will be made provided the students have self-identified with the Office of Disability Services and have provided the required documentation. Instructors will make every reasonable effort to modify the teaching methods, requirements and /or procedures of the courses and examinations appropriately to accommodate the special needs of the students with disabilities, provided the academic integrity of the course or examination is not violated, and the health and welfare of all students are safeguarded.

Final: All persons are required to take a final exam. An unexcused absence from the final exam will result in a grade of F in the course.

Please do not hesitate to ask for help if you are having a problem. For a fee of \$25.00, tutors are available in the Tutoring Center in Beauregard Hall. **Sign Up Early.**

**Note:** All parts of this syllabus are tentative and should not be construed as a contract. Students will be notified of any changes.