CLARENDON COLLEGE
Division of Science and Health
Chemistry Department
Fall 2010

Course Name: CHEM 1311 General Chemistry I

Credit Hours: 3

Semester: Fall 2010
Classroom Location: Shamrock High School

Instructor: Russell Killingsworth, DVM
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Office Hours: 8:00 – 8:20 a.m. Monday - Friday

Course Description:
An introduction to chemistry for students in the sciences. Areas of study are concerned with fundamental concepts including chemical vocabulary, applicable theories which have contributed to resent chemical concepts, and mathematical calculations. Topics covered include the development of present atomic theory, atomic structure, chemical bonding, and chemical reactions.

Statement of Purpose

The course is intended to prepare the student for future studies in chemistry and other related scientific areas. This course meets the core requirements of a laboratory science for the Associate in Arts or Associate in Science degree.

Textbook:
General Chemistry: Atoms First by John E. McMurry and Robert C. Fay

Methods of Instruction
Lecture and demonstrations

Course Objectives

Exemplary Objectives: The learner shall:

* understand and apply method and appropriate technology to the study of natural sciences.
* recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
* identify and recognize the differences among competing scientific theories.
* demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
* demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to , modern culture.

Student Learning Outcomes: The learner shall:

* formulate processes for the calculation of chemically related mathematical problems.
* Relate knowledge of chemical vocabulary covered during the course.
* distinguish arrangement of the components of the atom.
* construct electron arrangements of various elements.
* predict the coefficients necessary to balance and predict the product(s) of a chemical equation.
* formulate stoichiometric calculations involving molar relationships of substances.

Grading Policies:

The final semester grades will be calculated as the numeric average of the exams.

88 to 100 = A 75 to 87 = B 60 to 74 = C 50 to59 = D Below 50 = F

Four to six hour exams will be given throughout the semester. Each exam will cover the material presented since the previous exam. The last exam will be given during finals week. Each test will consist of multiple choice questions comprising 40% and mathematical problems comprising 60% of the total grade for each exam.

Classroom Policies:

Classroom Conduct

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination , classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination , classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination , classroom activity, laboratory exercise, or homework assignment ; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit.

Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Dean of Students when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved.

Students who are reported as cheating to the Dean of Students more than once shall be disciplined by the Dean. The Dean will notify all involved parties within fourteen days of any action taken.

American with Disabilities Act Statement:

Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687-9737). We will work with you to make whatever accommodations we need to make.

Dropping a Course:

If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on your transcript instead. Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive a grade of "F" on your transcript.

A student is permitted to drop a course if he/she obtains an official drop slip from the office and has the instructor sign the slip before the 12th class week.

Remember, a student is only allowed to drop the same class twice before he/she will be charged triple the tuition amount for taking the class a third time or more. Furthermore, beginning with the Fall 2007

semester, students in Texas may only drop a total of 6 courses throughout their entire undergraduate career. After the 6, he/she will no longer be able to withdraw from any classes.

Withdrawal from College:
When a student finds it necessary to withdraw from school before the end of the semester, he or she should obtain a withdrawal form from the Office of Student Services. Students may also withdraw from the college by sending a written request for such action to the Registrar's Office. The request must include the student's signature, the student's current address, social security number and course information details. Students who withdraw after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar will be assigned a grade of "W."

Tentative Course Schedule/Outline:

(a) General chemical concepts
(b) The metric system & measurement
(c) The atomic theory of matter
(d) The arrangement of electrons
(e) Chemical bonding
(f) Molecular structure
(g) Chemical nomenclature
(h) Chemical equations
(i) Chemical stoichiometric calculations
(k) Thermochemistry