

Colorado State University - Pueblo
Course Syllabus
Spring 2011

Part I

Course: CHEM111 Principles of Chemistry – 3 credits
CHEM111L Principles of Chemistry Lab – 1 credit

Start/End Dates: August 17, 2010 – May 26, 2011

Days/Times: Class meets every day Mon-Thurs for 65 minutes

Location:

Instructor:

Office Hours: Daily

Phone:

Email Address: _____

Part II

Required Textbooks/Readings:

Chemistry by Wilbraham, Staley, Matta, and Waterman;
publisher Prentice Hall

Optional Textbooks/Readings: none

Part III

Course Description: Course will investigate the fundamental laws, theories and principles of chemical reactions and perform experiments using common chemical equipment and techniques.

Course Objectives: Students will be able to perform the basic skills necessary to succeed in high level classes including naming compounds, writing chemical formulas, balancing equations, and carrying out stoichiometry calculations. Students will be able to set up and carry out chemical experiments correctly and safely, use chemical equipment properly, and complete laboratory reports.

Part IV

Evaluation/Grading Procedures

Attendance during regularly scheduled classes is required as per school policy. If you are absent when an assignment is given or due, school policy will be followed. Final exams are required. In order to earn college credit, a "C" average must be maintained both semesters.

Grades are earned according to the following scale:

100.00 - 90.00% = A; 89.99 - 80.00% = B; 79.99 - 70.00% = C;
69.99% or below = F.

Separate grades will be given for the lecture class and the laboratory class. Since this is a year-long course at the high school that is equivalent to a semester course at the college, the two high school semester grades will be averaged to achieve one grade that will be submitted to the college.

Lecture grade each semester will be based on quizzes, unit work, and final exams.

70% unit work; 10% quizzes; 20% final exams

Laboratory grade each semester will be based on lab techniques, lab reports, and lab quizzes.

15% lab techniques; 75% lab reports; 10% lab quizzes

Part V

Topics/Tentative Schedule of Activities

September

Laboratory Basics
Matter and Energy

Atomic Structure

October

Electron Configuration

Periodic Properties

November

Chemical Bonding

December

Nomenclature

January

Dimensional Analysis

Equation Writing

February

Stoichiometry

March

Solutions

April

Equilibrium

Acids and Bases

May

Gas Laws

Nuclear Chemistry

Tentative Schedule of Laboratory Experiments

September

Scientific Observation and Description
Conservation of Mass

October

Flame Tests

November

Molecular Geometries

December

Identification of (+) and (-) Ions

January

Types of Chemical Reactions

February

Mass / Mole Relationships

March

Solubility and Solution Formation

April

Acids and Bases

May

Salt Hydrolysis

Part VI

Special Notes: Schedules will be given at the beginning of each unit. These will show assignments and dates of labs and unit tests. Unit tests are generally cumulative in nature. Quizzes will be given every other week and will cover any material presented through the previous week.

Late assignments will not be accepted.