Fundamentals of Chemistry – Syllabus

Instructor Information
Name: John W. Pluemer
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Office
Building 100
Room 107

Course Information
Course No: 10-806-109
Credits: 2

Meeting Times / Location
Beginning Date: 8/24/05
Number of Weeks: 16
Ending Date: 12/21/05
Tuesday 9:30 – 10:30 Rm116
Wednesday 9:30 – 10:30 Rm 116

Course Description
Through Fundamentals of Chemistry students convert measurements, design tables and graphs, create models, and use the scientific method. Students interpret a model of the atom and use the periodic table. They distinguish physical, chemical, and nuclear changes and identify properties of common compounds. They analyze chemical equations and apply common chemical reactions to life science applications. Students examine biomolecules and their relation to life processes.
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Prerequisites
None

Textbooks, Resources, Supplies
Text: John Pluemer. *Fundamentals of Chemistry*. Publisher: John Pluemer Lulu.com Inc.
Resources: **http://www.swtc.edu:8082/courses/fundchem**
Supplies: Scientific calculator

Course Outcomes
Primary Core Ability: Communicate Clearly
General Education Outcome: Apply Scientific Concepts

Competencies
1. Convert measurements
2. Create tables and graphs to organize and present data
3. Create a model to illustrate a complex event or object
4. Use the Scientific Method to investigate a problem
5. Interpret a model of an atom
6. Use the Periodic Table to identify atomic, physical, and chemical properties of elements
7. Distinguish between physical, chemical, and nuclear changes
8. Determine chemical properties of basic compounds
9. Analyze a chemical equation
10. Relate technical applications to chemical or physical properties
11. Relate functions of biomolecules to life processes
12. Interpret basic cell function

Grading Information

Rationale

Attendance, Attitude, and Participation: Regular attendance will be taken and is mandatory for the successful completion of this course. Attitude and participation will also play a major part in this course. Grades will not be directly assigned for these factors but they may figure into a student's final grade based on the instructor's discretion. See policy regarding makeup work.

Worktext, Internet Assignments, and Labs: Students will be expected to complete the assigned reading, questions, and activities presented in the "Fundamentals of Chemistry" worktext. The worktext will be checked periodically at the instructor's discretion and point values from 0-10 will be given. Failure to complete the worktext will cause the student to lose these points and will also adversely affect their performance on the quizzes. In addition, there will be Internet assignments that will require the student to answer questions based on a particular web site and email the answers back to the instructor within the allotted time. Students will also perform lab activities. Labs require set up and cannot be made up. The worktext, Internet assignments, and labs will be 10% of the student's grade.

Quizzes: The student will be required to complete 16 quizzes covering material from the three units outlined above. The quizzes range in value from 14 to 50 points. Quizzes may be assigned by the instructor to be completed individually, as take home assignments, or as group projects. Quizzes represent 40% of the student's grade.

Tests: The student will be required to complete a test covering each unit. The tests represent 40% of the student's grade.

Report: Students will complete a short report on a topic of their choice in the field of science. The specific requirements will be explained after completion of Unit 2. The project will represent 10% of the students' grade.

Final Grade Computation

The final grade is based 40% on quizzes and 40% on tests, 10% on report and 10% on worktext, Internet assignments, and labs.

Quizzes - At the end of the semester, the quiz points earned will be divided by the total quiz points possible for that student. This is the quiz score.

Tests - The test points earned will be divided by the possible test points. This is the test score.

Worktext, Internet Assignments, and Labs - The worktext and Internet assignment points earned will be divided by the possible worktext and internet assignment points. This is the assignment score.

Report - The report points earned will be divided by the possible report points. This is the report score.

Final % = (Quiz Score x 40%) + (Test Score x 40%) + (Assign. Score x 10%) + (Report Score x 10%)

The final percentage will translate into a grade based on the scale below.

Grading Scale

A = 92% - 100%
B = 83% - 91%
C = 74% - 82%
D = 65% - 73%
F = Below 65%

Guidelines and Information

Make Up Work and Absentee Policy

It is essential that students attend class regularly. For this reason NO quizzes, assignments, or labs, or, report, or workbook checks can be made-up after an absence. Only tests are eligible for makeup based on the following conditions. If a student knows that they will be unable to attend during a scheduled test, the student can make arrangements to complete the test without penalty before the next class meeting. It is the student's responsibility to make these arrangements prior to the absence. Students will be allowed to drop one quiz grade of their choice at the end of the semester. Neither the report grade nor the worktext/internet assignment grade nor a test grade can be dropped.

ADA Statement

Students with disabilities should contact the Special Services Coordinator to arrange special accommodations or services to participate in this course, please contact…

Alan Propst, Special Services Coordinator,
Building 100 Room 108.
1-800-362-3322 x 2130 or TDD 1-608-822-2072.
apropst@swtc.edu
Refer to the Student Handbook for further details.

Ethics Policy:

When an instructor has evidenced dishonest behavior by a student or students, that student shall be withdrawn from the course for the semester. A letter describing the infraction will be sent to the student and the division dean and filed with student services. The student or students will be required to meet with the division dean, the counselor, and the course instructor.

ASC Statement

If you would like some additional help understanding the course material, you can stop at the Academic Skills Center (building 100 room 107). Instructors are available at all times to answer any questions you may have regarding this course. This service is provided free of charge to all SWTC students. All you have to do is "ASC".

Grade Record

Unit 1 Scientific Tools and Methods

Section	Assignment	Quiz	Test
Making Observations	----------	Quiz 1 =	----------
Measurements	----------	Quiz 2 =	----------
Tables and Graphs	----------	Quiz 3 =	----------
Models	----------	Quiz 4 =	----------
Scientific Method	----------	Quiz 5 =	----------
			Test 1 =

Unit 2 Introduction to Chemistry

Section	Assignment	Quiz	Test
Study of Matter	----------	Quiz 6 =	----------
Multidimensional Properties	----------	Quiz 7 =	----------
Atoms	Atom Web Assign	Quiz 8 =	----------
Elements, Isotopes, and Ions	----------	Quiz 9 =	----------
Periodic Table	Periodic Table Web Assign.	Quiz 10 =	----------
Physical, Nuclear, & Chemical Changes	----------	Quiz 11 =	----------
Chemical Bonds	----------	Quiz 12 =	----------
			Test 2 =

Report

Report / Presentation	Score =

Unit 3 Chemistry Applications

Section	Assignment	Quiz	Test
Making Compounds	----------	Quiz 13 =	----------
Chemical Equations	----------	Quiz 14 =	----------
Chemistry in Your Everyday Life.	Salts Web Assign Soap Web Assign	----------	----------
Biochemistry		Quiz 15 =	----------
Cells	Tanning Web Assign	Quiz 16 =	----------
			Test 3 =