CHEM 10 Course Outline as of Fall 2008

CATALOG INFORMATION

Dept and Nbr: CHEM 10 Title: CHEMISTRY & SOCIETY
Full Title: Chemistry and Society
Last Reviewed: 4/30/2007

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Application of chemical concepts has had a tremendous impact on the development of modern society. Chemistry 10 is designed for non-science majors and will investigate the basic chemical principles with an emphasis on their relevance to modern life. Topics will be presented in a non-mathematical manner and special emphasis will be given to current interests, such as pollution, food additives, pharmaceuticals, geochemistry, and energy sources. Chemistry 10 does not serve as a preparation for Chem 1A or 4A.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 1A or equivalent

Limits on Enrollment:

Schedule of Classes Information:
Description: Chemistry 10 is designed for non-science majors and will investigate the basic chemical principles with an emphasis on their relevance to modern life. Chemistry 10 does not serve as a preparation for Chem 1A or 4A. (Grade or P/NP)

Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 1A or equivalent
Limits on Enrollment:
Transfer Credit: CSU;UC.
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**		Effective:	Inactive:
	C	Natural Sciences	Fall 2008	Spring 2011
	C	Natural Sciences	Fall 1989	Fall 2004
CSU GE:	**Transfer Area**		Effective:	Inactive:
	B1	Physical Science	Fall 2008	Spring 2011
	B1	Physical Science	Spring 1990	Fall 2004
IGETC:	**Transfer Area**		Effective:	Inactive:
	5A	Physical Sciences	Fall 2008	Spring 2011

CSU Transfer:	Transferable	Effective:	Fall 2008	Inactive:	Spring 2011
UC Transfer:	Transferable	Effective:	Fall 2008	Inactive:	Spring 2011

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course, a student will be able to:
1. Describe basic chemical concepts
2. Correlate relationships between chemistry and its effects on society
3. Recognize the usefulness and limitations of the scientific method
4. Describe and apply the scientific method
5. Critique current social issues and policies within the context of chemistry

Topics and Scope:

1. Basic Concepts
   a. Scientific method
   b. States of matter
   c. Atomic structure
   d. Chemical bonding
   e. Chemical reactions
   f. Solutions chemistry
   g. Energy
2. Chemical History
   a. Development of chemistry
   b. History of experiments
   c. Chemistry and its influence on world politics

3. Chemistry and the Environment
   a. Agricultural chemistry
   b. Water and water pollution
   c. Air pollution
   d. Global warming
4. Chemistry and the Biological Aspect
   a. Basic biochemistry
   b. Basic organic chemistry
   c. Food and nutrition
5. Chemistry and Industry
6. Economic impacts

Assignment:

1. Specific reading assignments from textbooks as well as from periodical literature (approx. 40-50 pages of reading per week)
2. Written reports from reading assignments (approx. 1-5 page synopsis of weekly reading assignment)
3. Completion of recommended end-of-chapter problems (approx. 10-25 problems)
4. A written report (5-10 pages), oral presentation (10-15 minutes), or website of equivalent depth
5. Quizzes (0-10), Unit Exam (1-4), Final exam

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Reading reports, Essay exams, Term papers	Writing 30 - 50%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems	Problem solving 20 - 40%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None	Skill Demonstrations 0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion	Exams 30 - 50%

Other: Includes any assessment tools that do not logically fit into the above categories.

Participation and Attendance; alternative presentations, e.g. website etc.	Other Category 0 - 5%

Representative Textbooks and Materials:
Chemistry for Changing Times by Hill and Kolb, Prentice Hall, 2004
Chemistry in Focus by Tro, Thomson, 2007
The Extraordinary Chemistry of Ordinary Things by Snyder, Wiley, 2003