

EFFECTIVE: MAY 2005 CURRICULUM GUIDELINES

A.	Division: Science and Technology			Effective Date:		January 2005	
В.	Department / Program Area: Chemistry			Revision	X	New Course	
				If Revision, Section(s) Revised:		E,G,P,Q	
				Date of Previous Revision	n:	March 2003	
				Date of Current Revision	:	June 2004	
C:	CHEM 1110	D:	The Structure of	Matter		E: 4	
	Subject & Course No.		Descriptive	Title	Sen	nester Credits	
G:	This course offers a brief review of stoichiometry, and the treatment of experimental the modern view of atomic structure, theories of bonding and molecular structure, org nomenclature, conformation of alkanes, ring strain, substitution and elimination react reduction reactions. Allocation of Contact Hours to H: Course Prerequisites: CHEM 1108 (or CHEM CHEM 12 (C+ or better) better)					a, and then focuses on ic chemistry including is, and oxidation and 05) (C or better) or ND MATH 11 (C or	
			I: J:	Course Corequisites: Course for which thi CHEM 1210	s Cours	se is a Prerequisite	

M: Course Objectives / Learning Outcomes

Upon completion of this course, the students will:

- 1. Carry out measurements using the correct number of significant figures, and express the precision using absolute or relative uncertainties.
- 2. Given a set of experimental data, calculate the average value, the average deviation, and the standard deviation.
- 3. Solve stoichiometry problems of the following types: percentage composition/empirical formula, gram-gram or gram-volume (of a gas), solution stoichiometry, limiting reactant, problems involving two simultaneous or two sequential reactions.
- 4. Explain the Bohr Theory of atomic structure.
- 5. Give the electronic configuration of any of the common elements in the periodic table.
- 6. Given a periodic table, explain the relative sizes, ionization energies, and electron affinities of the elements.
- 7. Explain anemrhuaffinz Tw 8rn.02 0 C74011 (n126)1 o624ng 5r1a

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molecules; Valence Bond Theory: hybridization, orbital diagrams; Molecular Orbital Theory: shapes and energies of molecular orbitals, bond order, intermolecular forces, and hydrogen bonding.

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

No

Course Designer(s)

Education Council / Curriculum Committee Representative

Dean / Director

Registrar

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