



**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

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

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Dean / Director

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Registrar