**CHM 1032C/1032L**  
**Chemistry for Health Professionals with Lab**  
(4)

**Catalog Description:**  CHM 1032C (4) Chemistry for Health Professionals with Lab  
Three hours lecture, three hours lab per week. Prerequisite: MAT 1033 or higher with a grade of “C” or better. This course meets the Area V requirements for the A.A./A.A.S./A.S. general education requirements. This course is designed primarily for allied health science majors (students entering into the BSN program) and is not an acceptable prerequisite for CHM 2045C. This course is a survey of general chemistry, organic chemistry and biochemistry. Additional special fees are required.

**Performance Standards:**

At the successful completion of this course, the student should be able to:

1. Demonstrate the scientific method and show its importance to scientific discovery.
2. Distinguish between physical and chemical changes, physical and chemical properties.
3. Apply the use of dimensional analysis, units, scientific notation, and significant figures to solve calculations.
4. Be able to break down matter using different types of classification systems.
5. Interpret chemical name to formula and chemical formula to name.
6. Comprehend the atom’s nuclear make-up.
7. Manipulate the mole concept with respect to mass/mole conversion, mole ratios, and the number of particles.
8. Demonstrate the use of the periodic table.
9. Compare and contrast ionic and covalent bonding.
10. Predict the shape of a molecule using Lewis dot structure and VSEPR theory.
11. Relate the concept of polarity to molecular behavior and intermolecular forces.
12. Modify chemical reactions to yield balanced chemical equations.
13. Evaluate gas laws with respect to: volume, temperature, pressure, density, number of moles, molar mass and solubility.
14. Compare and contrast acids, bases, salts, electrolytes, neutralization, and pH.
15. Differentiate between oxidation and reduction processes.
16. Summarize the unique nature of carbon and how this relates to the vast amount of organic compounds.
17. Identify the common organic functional groups.
18. Outline the mechanism behind select organic reactions.
19. Relate the impact of chirality on our natural world.
20. Comprehend the complexity of the cell from a biochemical viewpoint.
22. Compare and contrast DNA and RNA.
23. Identify lipids, vitamins, minerals, and outline their biochemical importance.
24. Perform laboratory experiments designed to illustrate and supplement lecture content.