## Southeastern University College of Natural & Health Sciences Department of Natural Sciences CHEM 1533 - General Chemistry I Official Syllabus

## **Catalog Description**

This course is a fundamentals of chemistry course with emphasis on mass and energy relationships in chemical changes, equilibrium, atomic and molecular structure, and descriptive chemistry of selected elements and compounds.

Prerequisite: CHEM 1213 or MATH 1413 or a score of 36 or higher on the chemistry placement

exam Credit Hours: 3

Corequisite: CHEM 153L

Repeatable: Course not repeatable

## **Intended Learning Outcomes**

Students who successfully complete this course will:

- 1. Describe matter in terms of atoms, molecules, and ions.
- 2. Apply the stoichiometric relationships of matter.
- 3. Understand the nature of electrolytic solutions and reactions.
- 4. Understand the role of thermodynamics in simple chemical reactions.
- 5. Predict the properties of elements based on periodic trends.
- 6. Describe the fundamental types of bonding.
- 7. Predict molecular geometries in terms of molecular electron structures.
- 8. Calculate the relationships between pressure, volume, moles, and temperature in gaseous systems.

**Version History** v1.0 Original course proposal. 11/14/2023 v2.0 Updated.