

## **Course Syllabus**

### **GENERAL CHEMISTRY**

Program: Oceanographic Engineering

Printed by: lualtam

#### **1. Course number and name**

QUIG1032 - GENERAL CHEMISTRY

#### **2. Credits and contact hours**

3 credits and 4 contact hours

#### **3. Instructor's course or coordinator's name**

JENNY MARIA VENEGAS GALLO

#### **4. Text book, title, author, and year**

• Brown, T; LeMay, H.; Bursten, B; Murphy, C.; Woodward, P. & Stoltzfus, M. Chemistry, the Central Science (14th)

a. Other supplemental materials

• Chang, R.; Chemistry (11th)

#### **5. Specific course information**

a. Brief description of the content of the course (catalog description)

General Chemistry is a theoretical-practical course aimed at the basic training of professionals in the areas of Engineering and Natural Sciences, which provides a scientific basis of the matter and its interactions, and seeks to develop in students the ability to solve problems related to the content of the subject. It begins with an Introduction to Thermochemistry, then the analysis of the physicochemical properties derived from the state of aggregation of matter: liquids, solids and solutions, the study of the Kinetics and Equilibrium of reactions and solubility.

b. This course is: Required

#### **6. Specific goals for the course**

a. Specific outcomes of instruction

1.- Understand changes that occur on pure and mixed substances from knowing their physical and chemical properties and the dynamic of their mix and reactions

2.- Apply laws, principles and basic chemistry concepts to solve problems related with the program content

3.- Interpret the principles that govern the physical and chemical phenomena studied, applying them in laboratory practices

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course

#### **7. Brief list of topics to be covered**

1.- Evaluation activities

2.- Introduction to the Thermochemistry

3.- Intermolecular Forces, liquids and solids

4.- Properties of Solutions

5.- Chemical Kinetics

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6.- Chemical Equilibrium and Solubility Equilibrium

7.- Acid–Base Equilibrium