

Course Syllabus

GENERAL CHEMISTRY

Printed by: jfmoncay

Program: Telecommunications Engineering

1. Course number and name

QUIG1001 - 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/Lemay/Burnsted. Química la Ciencia Central (12)
 - a. Other supplemental materials
- Chang R.. QUÍMICA GENERAL (Décima primera)
- Petrucci, R.H., Harwood W.S., Herring F.G.. QUÍMICA GENERAL (DÉCIMA)

5. Specific course information

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

General Chemistry is a theoretical-practical course aimed at training professionals in the area of engineering and natural sciences, which seeks to develop in students the ability to solve problems related to the content of the matter. The course addresses concepts, principles and fundamental laws of chemistry, related to the units: types of bond, molecular geometry, physical properties derived from the state of aggregation of molecules, speed and equilibria of reactions.

- b. This course is: Required

6. Specific goals for the course

- a. Specific outcomes of instruction

1.- Explain the physical and chemical changes that occur in pure substances and in mixtures, from the knowledge of chemical bonds, intermolecular forces and reaction dynamics.

2.- Understand the laws, principles and basic concepts of chemistry to solve problems related to the contents of the program.

3.- Use materials and chemical reagents appropriately using standard laboratory procedures

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

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to identify, formulate, and solve engineering problems

7. Brief list of topics to be covered



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- 1.- Chemical Bonding and Molecular Geometry
- 2.- Introduction to the Thermochemistry
- 3.- Intermolecular Forces, liquids and solids
- 4.- Properties of Solutions
- 5.- Chemical Kinetics
- 6.- Chemical Equilibrium and Acid–Base Equilibria