
COURSE: : Chemistry

ACADEMIC YEAR: 2019-2020

TYPE OF EDUCATIONAL ACTIVITY: BASIC

TEACHER: : Patrizio Grimaldi

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Language: Italian

ECTS: 8

n. of hours: 64

Campus: **Potenza**
Department of Science
Geological SciencesSemester: I
(from 01/10/2019 to
20/12/2019-
20/01/2020)

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course aims to give to the students basic chemistry knowledges so that, at the end of the course, they are able to solve simple stoichiometry problems and to understand elementary chemistry literature from atomic theory to acid-base equilibria in aqueous solution

PRE-REQUIREMENTS

Elementary mathematical knowledges.

SYLLABUS

Keys to the Study of Chemistry; The Components of Matter; Stoichiometry of Formulas and Equations; Three Major Classes of Chemical Reactions; Gases and the Kinetic-Molecular Theory; Thermochemistry: Energy Flow and Chemical Change; Quantum Theory and Atomic Structure; Electron Configuration and Chemical Periodicity; Models of Chemical Bonding; The Shapes of Molecules; Theories of Covalent Bonding; Intermolecular forces: Liquids, Solids, and Phase Changes; The Properties of Mixtures: Solutions and Colloids; Kinetics: Rates and Mechanisms of Chemical Reactions; Equilibrium: The Extent of Chemical Reactions; Acid-Base Equilibria; Ionic Equilibria in Aqueous Systems; Thermodynamics: Entropy, Free Energy, and the Direction of Chemical Reactions; Electrochemistry: Chemical Change and Electrical Work

TEACHING METHODS

Theoretical lessons, Classroom tutorials, E-learning

EVALUATION METHODS

Written examination, Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

M.S. Silberberg – CHEMISTRY – McGraw-Hill

INTERACTION WITH STUDENTS

Teacher's office Thursday 13.30-14.30

Almost in every moment by e-mail and Skype.

EXAMINATION SESSIONS (FORECAST)

1-2-20; 2-3-20; 1-6-20; 1-7-20; 1-9-20; 1-10-20; 1-12-20

SEMINARS BY EXTERNAL EXPERTS NO

FURTHER INFORMATION
