

Chim/03: general Chemistry

Academic year: 2016/2017

Faculty: Chemistry Department

Study courses: Bachelor

Study plans/Curricula: Chemistry and Material Science

Type: fundamental

Total Credits: 6 CFU for each course

Didactic Methods: lessons

Didactic Period: I year

Exam type: oral

Professor in charge: Prof. Francesco Fracassi

Training objectives

To write and balance chemistry reactions; to carry out stoichiometric calculations, to learn the structural features of the matter as well as to face the issues of the chemical equilibrium and electrochemistry.

Prerequisites

Basic concepts from secondary school.

Didactic Methods

Course programme

PROGRAMME:

Lectures:

1. Fundamental laws of chemistry Empirical formula and molecular formula
2. Atom and Chemical bond
3. Chemical nomenclature and chemical reactions
4. The states of matter, Solutions and colligative properties
5. Chemical thermodynamics
6. Chemical equilibrium in homogeneous systems, Equilibria in solution: pH
7. Electrochemistry: galvanic cells and electrolysis

Numerical applications

Reference Texts

Testo consigliato: Manotti Lanfredi, Tiripicchio, Fondamenti di Chimica, Casa Editrice Ambrosiana (ISBN 88-408-1347-0)