

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

### **SYLLABUS DEL CORSO**

# Chimica e Propedeutica Biochimica

1718-1-H4101D252-H4101D002M

#### **Aims**

Atomic structure. Solutions. Chemical bonds. Chemical reactions and catalysis. Acids and basis and buffer solutions. Organic compounds and functional groups: structural properties of organic molecules and chemical reactivity. The compounds of life: carbohydrates, amino acids, nucleotides, lipids. Proteins. Polysaccharides. Nucleic acids.

#### **Contents**

The primary goal of the course is to provide students with the tools for the understanding of the complex reactions that represent the molecular basis of life, and with the fundamentals to identify the cause-effect relations of the most important chemical and physical processes for the curriculum and the work of a physician. This knowledge will form the primary basis for a rationale approach to the knowledge of medical sciences.

#### **Detailed program**

#### **Prerequisites**

# **Teaching form**

Frontal lectures, exercises and workshop laboratory

## Textbook and teaching resource

A. Fiecchi, M. Galli Kienle, A. Scala Chimica e Propedeutica Biochimica Ed. Edi Ermes.

E. Santaniello, M. Alberghina, M. Coletta, S. Marini Principi di Chimica Generale e Organica Ed. PICCIN F.A.

Bettelheim, W.H. Brown, M.K. Campbell, S.O. Farrell Chimica e Propedeutica Biochimica EdiSES

#### Semester

1st semester

#### **Assessment method**

#### Office hours