



BIOCHEMISTRY

BIO/10 - 6 CFU - 2° Semester

Teaching Staff

CARMELINA DANIELA ANFUSO

Email: daniela.anfuso@unict.it

Office: Torre Biologica, Torre Sud, quarto piano. Via Santa Sofia, 97 - 95123 Catania

Phone: +39 095 4781170

Office Hours: Sempre disponibile, previo appuntamento via e-mail

LEARNING OBJECTIVES

The course aims to provide an adequate preparation of biochemistry in order to understand the structure and function of biological molecules and the meaning of the main metabolic events. At the end of this module, students will learn a general knowledge on the molecular basis of life, from the fundamental chemical properties of the substances, the structure and function of macromolecules involved in life, both at the cellular and extracellular level, and the metabolic transformations of biomolecules necessary for the human body function. In addition, the student will understand the meaning of the main metabolic pathways during muscle contraction and in different physiological and pathological contexts, particularly with respect to the skeletal striated muscle and myocardium.

COURSE STRUCTURE

Traditional lectures, with the support of slides and audiovisual tools. At the end of the lecture, ample space is given to the comment on the discussed topics.

Should teaching be carried out in mixed mode or remotely, it may be necessary to introduce changes with respect to previous statements, in line with the programme planned and outlined in the syllabus.

DETAILED COURSE CONTENT

1. PROTEINS
2. CHROMOPROTEINS FOR OXYGEN TRANSPORT
3. PLASMA PROTEIN
4. ENZYMES AND ENZYMATIC CATALYSIS
5. THE CARBOHYDRATE METABOLISM
6. THE LIPID METABOLISM
7. THE METABOLISM AMINOACIDS

8. VITAMINS

9. MUSCLE METABOLISM, STRUCTURE, METABOLIC INTEGRATIONS AND THE CONTRACTION

TEXTBOOK INFORMATION

1. Introduzione alla Biochimica di Lehninger - D.L. Nelson, M.M. Cox - ZANICHELLI
 2. Biochimica medica - Siliprandi, Tettamanti - PICCIN
 3. Biochimica per le scienze motorie - Di Giulio, Fiorilli, Stefanelli - CASA EDITRICE AMBROSIANA
-