



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Clinical Biochemistry and Molecular Biology

2223-1-H4601D004-H4601D015M

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#### Aims

CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY

Students' skills:

- to describe the role, the limitations and the aims of BC tests;
- to illustrate the causes of biological, analytical and post-analytical variability;
- to illustrate the meaning of quality control in BC;
- to describe the concept of analytical goal, reference intervals, desirable, decisional levels, sensibility, specificity and predictive value of BC tests;
- to illustrate the concept of function and lesion marker applied to hepatic and cardiac diagnostics;
- to describe the main lab tests used in the assessment of glucidic metabolism, plasmatic protein alterations, coagulopathies, hemoglobinopathies, dyslipidemias, and bone diseases.
- To describe the use of tumor markers.

#### Contents

CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY

To provide the students with the basic knowledge about clinical biochemistry tests to be used in the main organ/tissue alteration relevant for the dentists.

#### Detailed program

## CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY

Role, limitations and the aims of BC tests; Biological, analytical and post-analytical variability; Analytical goals, and control quality in BC How to interpret lab results: reference intervals, desirable, decisional levels, sensibility, specificity and predictive value of BC tests; Clinical biochemical assessment of glucidic metabolism, plasmatic protein alterations, coagulopathies, hemoglobinopathies, Function and lesion markers in the hepatic and cardiac diagnostics; dyslipidemias, and bone diseases. Use of biochemical tumor markers.

### **Prerequisites**

Aims of Preparatory Sciences course.

### **Teaching form**

Lectures and practices.

### **Textbook and teaching resource**

CLINICAL BIOCHEMISTRY AND CLINICAL MOLECULAR BIOLOGY BOOKS:

Federici Giorgio: Medicina di laboratorio. Publishing house: McGraw-Hill

### **Semester**

First year of course, second semester.

### **Assessment method**

Written tests: 27 single /multiple-choice quizzes divided between the three different modules and final interview.

### **Office hours**

Reception upon appointment.

### **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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