



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Principles of Proteomics

2021-1-H4101D252-H4101D003M

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#### Aims

The student must achieve the knowledge for the purification, isolation and characterization of the proteins

#### Contents

Primary goal of the course is to provide theoretical and practical basic knowledge to study and to characterised the human proteome

#### Detailed program

Description of the properties of the proteins that can be used for their isolation. Description of the techniques available for their extraction and purification (solubility, chromatographic techniques such as ion-exchange chromatography, gel filtration, mono and two-dimensional electrophoresis, capillary electrophoresis). Description of the human proteome, of the main proteomics techniques, of its objectives, of the information that can be obtained and the methods used to acquire these information with example of applications in medical science.

#### Prerequisites

Basic knowledge of chemistry and propaedeutic biochemistry

## **Teaching form**

Lectures and laboratories

In the Covid-19 emergency period, lessons will take place in mixed mode: partial presence and asynchronous / synchronous videotaped lessons with some events in physical presence

## **Textbook and teaching resource**

Voet D, Voet JG. BIOCHIMICA Zanichelli; Voet D, Voet JG, Pratt CW, FONDAMENTI DI BIOCHIMICA (2005) Zanichelli; Educational materials provide by the teacher

## **Semester**

First semester

## **Assessment method**

Written and oral question is always present during the exam of the Propedeutical Science.

## **Office hours**

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