



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Metabolomica

2122-1-F0901D046-F0901D091M

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#### Aims

The course will introduce metabolomics technologies and platforms applied to biomedical investigations

#### Contents

Main concepts and definitions used in metabolomics. Analytical approaches and methods in used metabolomics studies for biomedical investigations.

#### Detailed program

Introduction to metabolomics: concepts, approaches and definitions

Analytical technologies in metabolomics

Experimental design in metabolomics

Lipidomics and Fluxomics

#### Prerequisites

Basic knowledge in the field of Chemistry, Biochemistry and Statistics

## **Teaching form**

Lectures and practical lessons

## **Textbook and teaching resource**

Reviews and scientific articles published on international journals will be provided during the course. Downard K., Mass spectrometry . A foundation course. Royal Society of Chemistry, 2004 ISBN 0-8504-609-7 Gary Siuzdak, Mass Spectrometry for Biotechnology, Academic Press 1996 Per consultazione: J. H. Gross, Mass Spectrometry. A Textbook, Berlin – Heidelberg, Springer Verlag, 2004 E. De Hoffmann, V. Stroobant, Mass Spectrometry. Principles and Application, 2nd Edition Chichester, John Wiley & Sons, 2001. C. Dass, Principles and Practice of Biological Mass Spectrometry, New York, Wiley-Interscience, 2000. ISBN 0471330531 Chapman, John R. Mass Spectrometry of Proteins and Peptides, Humana press 2000, ISBN 0- 89603-609-X Walker, John M. The Proteomics Protocols Handbook Humana Press, 2005

## **Semester**

Second semester

## **Assessment method**

One written and oral question is present during the exam of the Proteomics and Metabolomics course

## **Office hours**

Every day upon appointment

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