UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Diagnostic Technologies for The Biomedical Laboratory

2526-3-I0302D035

Aims

The course is made up of four modules (Therapeutic Drug Monitoring, Molecular Genetics, Biotechnological Diagnostics and Technical Sciences of Laboratory Medicine) in which the technological and application knowledge used in the different sectors of laboratory medicine related to the four areas will be provided.

Contents

Scienze Tecniche di Medicina di Laboratorio: The primary goal of the course is to provide tools for the understanding of basic and practical aspect of chromatography and of spectroscopy for qualitative and quantitative analysis.

Therapeutic Drug Monitoring: The primary goal of the course is to provide tools for the understanding of the laboratory techniques to approach the field of Therapeutic drug monitoring.

Genetica Molecolare: Cytogenetics and particular genetic diseases. FISH, aCGH, imprinting diseases, triplet expansion diseases as examples of various techniques applicable in a genetics laboratory. Molecular Biology: PCR and its many applications, with examples related to a hemato-oncology laboratory

Diagnostica Biotecnologica: The primary goal of the course is to provide tools for the understanding of the laboratory techniques of clinical molecular diagnostics.

Detailed program

Scienze Tecniche di Medicina di Laboratorio: please consult the module syllabus

Therapeutic Drug Monitoring: please consult the module syllabus

Genetica Molecolare: please consult the module syllabus

Diagnostica Biotecnologica: please consult the module syllabus

Prerequisites

For Genetica Molecolare: Students should know the basic principles of Mendelian genetics, nucleic acid structure and molecular biology.

Teaching form

Scienze Tecniche di Medicina di Laboratorio: please consult the module syllabus

Therapeutic Drug Monitoring: please consult the module syllabus

For Genetica Molecolare: please consult the module syllabus

Diagnostica Biotecnologica: please consult the module syllabus

Textbook and teaching resource

The Teachers will provide educational materials

Semester

First semester

Assessment method

see single course for details. The final exam consists of Discussion of the written test through an oral interview.

Office hours

On appointment requested by mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING