UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Training I

2627-1-I0302D042

Aims

During the internship, the student, supported by internship assistants and/or tutors, must:

KNOWLEDGE AND UNDERSTANDING
Learn the pre-analytical sample treatments required for each diagnostic test
Learn reagent management: knowledge of recovery methods, respect for temporal stability, knowledge of storage methods, and inventory management
Learn how to store biological samples already analyzed
Learn waste collection and disposal methods
Learn sample identification rules, suitability criteria, and acceptance procedures

APPLICATION OF KNOWLEDGE AND UNDERSTANDING
Apply safety and personal protection standards and privacy regulations
Acquire technical skills regarding the use of pro-pipettes, pipettes, centrifuges, scales, microscopes, chemical and biological hoods

COMMUNICATION SKILLS
Introduce yourself to the laboratory environment and learn to recognize the roles and functions of the various professionals involved the working group
Ability to communicate clearly and appropriately within a workgroup

INDEPENDENT JUDGMENT
Ability to apply sample identification rules, sample suitability criteria, and acceptance procedures (pre-analytical phase)

LEARNING SKILLS
Ability to critically evaluate one's own practice and continuously improve one's skills through feedback from tutors/internship assistants

Contents

During the first-year internship, students learn the rules for protecting themselves and their team, privacy policies, and the rules governing behavior within the laboratory and, more generally, within the host company. Accompanied by assistants and/or internship tutors, they learn the activities associated with the pre-analytical phase (collection, identification, storage, transportation, and processing of biological samples). Finally, they acquire the techniques for using basic laboratory equipment, preparing and storing reagents, and proper waste management.

Detailed program

1. Safety regulations and personal and collective protective equipment
2. Privacy regulations.
3. Identification of biological samples, assessment of their suitability and acceptance.
4. Pre-analytical processing of biological samples.
5. Preparation of reagents for the analytical phase, with particular attention to knowledge of recovery methods, shelf life, storage methods, and inventory management.
6. Use of pipettes, pipette-pro-pipettes, centrifuges, analytical balances, microscopes, chemical and biological hoods.
7. Storage and archiving of biological samples already analyzed.
8. Waste collection and disposal methods.

Prerequisites

Teaching form

Practical professionalizing activities

Textbook and teaching resource

The teaching material will be provided during the practical activities

Semester

Second semester

Assessment method

1. Preparation of a written report by the student regarding the internship experience
2. Evaluation carried out by tutors and internship assistants using the specific worksheets for the academic year
3. Oral interview with questions regarding the report prepared by the student and the practical activities carried out during the internship + a practical dilution test

The final grade is expressed out of 30

Office hours

By appointment required by mail.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING