UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Microbiology Laboratory

2627-2-H4602D007-H4602D00702

Aims

To provide the dentistry student, through laboratory and classroom exercises, with the basics and knowledge of the diagnostic path of the Clinical Microbiology Laboratory in order to submit a correct exam request and interpret the results obtained.

Contents

Laboratory exercises with simulated clinical samples for the execution of various microbiological investigations and laboratory methods, for the search for microbial agents and for the in vitro evaluation of their sensitivity to antimicrobial agents. Clinical case studies.

Detailed program

Execution of Microbiology laboratory methods for:

- differential stainings for the study of microorganisms by microscopy directly from the sample;
- microbial isolation from different biological matrices in different culture media;
- microbial identification through biochemical tests;
- evaluation of antibiotic sensitivity of pathogenic bacteria by means of techniques such as susceptibility testing and determination of MICs; EUCAST susceptibility breakpoints evaluation
- rapid methods for the search for specific microbial antigens;
- molecular methods for the research of microbial agents after extraction of nucleic acids;
- study of clinical cases.

Prerequisites

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Teaching form

Laboratory and Classroom exercises.

- 3 4-hour laboratory activities carried out in interactive mode in person
- 3 4-hour exercise activities carried out in interactive mode in person

Textbook and teaching resource

Notes, standard operative procedures (SOPs), cards and handouts of the Microbiology Laboratory

Semester

II semester of the 2nd year of the degree course

Assessment method

Specific questions in the final Microbiology quiz. Diagnostic aspects verified in the final Microbiology exam.

Office hours

On request and by e-mail appointment (rosario.musumeci@unimib.it)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING