



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Microbiology and Clinical Microbiology

2223-1-I0101D005-I0101D016M

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#### Aims

MICROBIOLOGY-Acquire the basics of microbiology and clinical microbiology.

#### Contents

MICROBIOLOGY-At the end of this course, the student will be able to know: concept of acute and persistent infection, pathogenicity and virulence. The methods of direct and indirect contagion. The way of transmission of infections and their spread. Concept of carrier (eg. HBV). The correct way to collect, storage and transport biological sample from patient to laboratory. Approaches to laboratory diagnosis of bacterial and viral infections: direct and indirect diagnosis. Essential features of the main pathogens agents of clinical interest.

#### Detailed program

MICROBIOLOGY-Diagnosis of microbial infections: specimen collection, direct and indirect clinical diagnosis. Bacterial and viral infections of the respiratory system: streptococcal angina, influenza virus, bacterial and viral pneumonia. Urinary tract infections: cystitis and pyelonephritis. Reproductive diseases: syphilis, gonorrhea, non-gonococcal urethritis, HPV and Herpes. Bacterial and viral infections of the central nervous system: bacterial and viral meningitis, polio, viral encephalitis. Diseases of the gastrointestinal (staphylococcal intoxication, salmonella, E. coli gastroenteritis, pseudomembranous colitis caused by Clostridium Difficile, Helicobacter and peptic ulcers, viral infections (hepatitis, viral gastroenteritis). Microbial infections of the skin and eyes: Bacteria (staphylococcus, streptococcus, pseudomonas), viruses (HPV, herpes virus), fungi (Candida). Sepsis (some examples).

## **Prerequisites**

Positive evaluation in Biomedical Sciences 1.

## **Teaching form**

Lectures through presentations in electronic form of drawings and diagrams explaining concepts and functions of the organism.

## **Textbook and teaching resource**

MICROBIOLOGY

Cevenini R., Sambri V. (2004) Microbiologia e microbiologia clinica - Per i Corsi di Laurea in professioni sanitarie, Padova, Piccin.

- FOR ALL THE MODULES: Slides and bibliographic references

## **Semester**

2 Semester

## **Assessment method**

FOR THE ENTIRE COURSE: Written test.

## **Office hours**

On appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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