UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

## Infectious Diseases

**2627-3-H4102D056**

### Aims

By the end of the course, the student will be able to:

- Describe the etiology, the epidemiology (including the route of transmission), the clinical picture, and the natural course of the principal infectious diseases and infective syndromes;
- Integrate such knowledge with the choice of the appropriate diagnostic path for each disease or syndrome (including anamnesis, identification of relevant symptoms and signs, laboratory assessment, radiological tests, diagnosis of complication, and differential diagnosis);
- Describe the therapeutic and preventive measures for the principal infectious diseases and infective syndromes;
- Know the fundamentals of antimicrobial chemotherapy for the most important infectious diseases.
- Analysing and evaluating the onset and symptoms of Infectious Diseases, highlighting how for the same disease, different problems can occur in men and women

### Contents

Principles of epidemiology, diagnosis, treatment and prevention of Infectious Diseases.
Differential diagnosis and management of clinical syndromes related to infections ( Systemic infections, Sepsis, Infections of Cardiovascular System, Bone and Joint infections, Skin and Soft tissue infections, Sexually Transmitted Infections,Respiratory tract and Digestive tract infections, Intra Abdominal Infections)
Management of antimicrobial therapy

### Detailed program

**Ø Systemic Infectious Diseases**

- Sepsis and septic shock
- Typhoid fever and brucellosis
- Lyme disease
- Rickettsial diseases
- Systemic Viral Infections (EBV, CMV)
- COVID-19 and other emerging infectious diseases

**Ø Central Nervous System Infections**

- Meningitis
- Encephalitis and myelitis
- Brain abscesses, epidural abscesses

**Ø Respiratory Infections**

- Upper respiratory tract infections
- Lower respiratory tract infections (including basic concepts on Community Acquired Pneumonia, Health Care Associated Pneumonia, Ventilator Associated Pneumonia)
- Influenza
- Tuberculosis (including Latent Tuberculosis and basic notions on extra-pulmonary tuberculosis)

**Ø Cardiovascular Infections**

- Infective endocarditis (including Cardiovascular Implantable Electronic Devices Infections)
- Catheter-related infections
- Myocarditis and infectious pericarditis (basic notions)

**Ø Gastrointestinal and Hepatobiliary Infections***

- Infectious diarrhea & gastroenteritis
- Antibiotic-associated diarrhea and Clostridium difficile infection
- Intra-abdominal infections (including appendicitis, colecystitis, peritonitis)

*Note: viral hepatitis and Helicobacter pylori are discussed in the gastroenterology course.

**** Ø Tropical Diseases & Parasitic Infections****

- Malaria
- Schistosomiasis
- Arbovirosis (Yellow Fever, Dengue, Chikungunya, West Nile Virus)

**** Ø Skin and Soft Tissues Infections****

- Cellulitis
- Erysipelas
- Gangrene
- Necrotizing fascitis

**** Ø Musculoskeletal Infections****

- Spondylodiscitis
- Osteomyelitis
- Arthritis (including prosthetic joint infections)**

**** Ø HIV disease
**

- Epidemiology
- Pathogenesis
- Natural history & main opportunisms
- Principles of antiretroviral therapy
- Vertical transmission
- Pre and post-exposure prophylaxis

**** Ø Urinary Tract infections****

- Cystitis
- Pyelonephritis
- Prostatitis

**** Ø Sexually Transmitted Diseases****

- A general introduction to epidemiology and prevention
- Syphilis
- Gonorrhea
- Nongonococcal urethritis
- Pelvic inflammatory disease (PID)
- Trichomoniasis

**Ø Endemic and non endemic mycoses

- Candida species
- Aspergillus species
- Other Yeasts and moulds infections
- Criptococcus, Histoplasmosa, Coccidiodes species , Blastomyces
- Pneumocystis species

**Topics which will be discussed withing the Oncohematological Track**

- Vaccinations in the immunocompromised host
- Infections in the immunocompromised host (including febrile neutropenia and infections in asplenic patients)

**Topics which will be discussed withing the Woman and Child Track**

- Infections in pregnancy
- Vertically Transmitted Infections
  **Topics which will be discussed withing the Digestive System Track**
- Viral Hepatitis

## Prerequisites

Knowledge of the introductory courses indicated in the degree course regulations

## Teaching form

Frontal lessons with audio-visual aids and open discussion in the classroom, clinical case discussions.

## Textbook and teaching resource

Frederick Southwic – Infectious Diseases. A clinical short course. Mc Graw Hill. Fourth edition
Harrison's Principles of Internal Medicine, Twentieth Edition (Vol.1 & Vol.2) 20th Edition
Uptodate https://www-uptodate-com.unimib.idm.oclc.org/contents/search

## Semester

Second semester

## Assessment method

Final oral examination with open questions to assess general knowledge on infectious diseases.

## Office hours

To get an appointment, please contact the teachers by e-mail:

· prof. Bonfanti Paolo: segreteria.malattieinfettive@irccs-sangerardo.it

· prof. Puoti Massimo: massimo.puoti@unimib.it

- prof. Serena Venturelli: sventurelli@asst-pg23.it

## Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | GENDER EQUALITY | CLEAN WATER AND SANITATION | DECENT WORK AND ECONOMIC GROWTH