



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Scienze Umane Generali

1819-2-H4601D005

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#### Aims

Preparation of expert odontologists by the acquisition of knowledge in different disciplines:

General Pathology: etiopathogenesis of pathological processes, in particular related to odontopathology.

Microbiology: microbial agents responsible for infections and diseases of both general and odontostomatologic interests and understand the principles of microbiological diagnostics.

Clinical Pathology: meaning of laboratory tests, their clinical and scientific relevance and their appropriate use.

#### Contents

The course will provide,

-General Pathology: knowledge of causes and general mechanisms of pathological processes (etiopathogenesis). Appropriate technical/scientific terminology. Pathogenetic and physiopathologic knowledge to appropriately follow the successive clinical courses

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#### Detailed program

General Pathology: Etiology, pathogenesis, acquired, congenital, inherited, acute and chronic degenerative diseases. Immunity, immune response, primary and secondary response, vaccination, immunopathology, hypersensitivity Ionizing radiation pathology. Burns.

Acute and chronic inflammation.

Fever, leukocytosis, acute phase proteins. Wound repair. Granulation and cicatricial tissue. Fibrosis. Amyloidosis. Cell death. Atherosclerosis. Hypertrophy. Hyperplasia. Hypotrophy. Organ failure. Compensation.. Preneoplastic lesions. Benign and malign tumors. Carcinogenesis (chemical, physical and biological). Oncogenes and oncosuppressors, genes for DNA repair. Hereditary tumors. Angiogenesis and metastasis. Hormone and tumor. Tumor metabolism, Neoplastic cachexia. Coagulation, hemophilia, thrombosis, embolism, infarct. Thalassemia. Trisomies. Diabetes. Ageing.

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and protozoa pathogenic to humans. Host-parasite interactions.

Mechanisms of microbial pathogenity. Physical and chemical methods for disinfection and sterilization. Infection control. Main methods useful in microbiological diagnostics. Main classes of antimicrobial agents. Prophylaxis of infections and use of vaccines. The microbial habitat of the oral cavity. \_\_\_\_\_

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## **Prerequisites**

Acquisition of the goals of the previous courses

## **Teaching form**

Frontal lessons, exercitations, laboratory stages

## **Textbook and teaching resource**

- Pontieri, Russo, Frati Patologia Generale - V ed. - Piccin
  - Robbins e Cotran - Le basi patologiche delle malattie - IX ed. - Elsevier;
  - Majno e Joris Cellule, tessuti e malattia - I principi della Patologia Generale - Casa Editrice Ambrosiana;
  - Abbas A.B., Lichtman A.H. Fondamenti di Immunologia. Funzioni e alterazioni del sistema immunitario. Piccin.
  - Microbiologia - P.R. Murray, Ken Rosenthal, G.S. Kobayasky, M.A. Pfaller. EdiSES.
  - Microbiologia Odontoiatrica (4°edizione), P.D. Marsh, M. Martin. UNI.NOVA
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- Henry, Clinical diagnosis and management by laboratory methods Ed Saunders 2007

- Hovanitz, Laboratory Medicine Ed. Churchill Livingstone 1991

- FOR ALL THE MODULES: Slides and pertinent bibliography

## **Semester**

Annual course, at the second year

## **Assessment method**

Oral examination.

The oral examination will be preceded by a written multiple-choice test, comprising 90 questions with only one correct answer (among 4), aimed at evaluating global comprehension of microbiology program. The text will be passed with 51 exact answers, the value of each exact answer is 0.35 point.

The oral examination consists in the discussion of the remaining part of the integrated course, aimed at verifying the student ability to make connections and provide details. The final score will be the weighted mean of the two tests

## **Office hours**

By appointment

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