



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

General Human Sciences

2021-2-H4601D005

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

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.

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. _____

Clinical Pathology: the contribution of Clinical Pathology -in promoting health at the level of prevention, diagnosis and cure, -defining the etiopathogenesis of the different pathological situations, -evaluating the functional alterations of organs and control mechanisms at the different integration of structures, functions and organism in relation with the knowledge of physiology and pathology acquired during the present year. _____

Basic principles arising from physiopathological knowledge, for prescription and interpretation of test results with hints at differential diagnosis using the followed lab tests: _____

Prerequisites

Acquisition of the goals of the previous courses

Teaching form

Frontal lessons, exercitations, laboratory stages.

In the period of Covid-19 emergency, lessons will be provided by mixed manner: partial presence and asynchronous/synchronous recorded lessons

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

- 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.

In the period of Covid-19 emergency the oral examination will be telematic, using the WebEx platform.

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
