



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Malattie del Sistema Nervoso

2425-5-H4101D329

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#### Aims

The goal of the course "Diseases of the Nervous System" is to lead the student to know primary and secondary disorders of central and peripheral nervous system. This will be achieved through the knowledge of pathogenesis and clinical features, to allow appropriate diagnosis, prognosis and, in most cases, appropriate treatment.

#### Contents

Based on anamnesis, symptoms, neurological examination and few and selected imaging and laboratory tools, the student must know how to formulate a neurological diagnosis, answering the following questions: 1. "Where is the lesion located?" 2. "What kind of lesion is it?" In order to reach these objectives, a preliminary knowledge of neuroanatomy, neurophysiology, pathology, is needed, as well as the learning of appropriate skills (neurological anamnesis, semeiology and neurological examination) and know how (differential diagnosis of main neurologic pathologies, imaging and laboratory exams, diagnosis and therapy of most common neurologic disorders and neurologic emergencies).

#### Detailed program

To reach objectives of the course preliminary base knowledge is necessary (neuroanatomy, neurophysiology, pathology), some skills need to be achieved (anamnesis, semeiology and neurological exam) and knowledge (differential diagnosis of the main neurological disorders, exams, diagnosis and therapy of common disorders and of neurological emergencies). Detailed program follows:

BASE PRELIMINARY KNOWLEDGE - Neuroanatomy including Central, peripheral and autonomic Nervous system  
NEUROLOGICAL SEMEIOLOGY AND MAIN NEUROLOGICAL SYNDROMES (deep knowledge) - Sensory semeiology - Sensory syndromes due to lesions of nerve trunk, roots, spinal cord, cortical lesions. Motor system

semeiology, tone and reflexes, paresis and paralysis due to upper and lower motor neuron, extrapyramidal symptoms, coordination, stance and gait disturbances, cerebellar and vestibular disorders, optic nerve and pathways, visual field defects, ocular movement disorders, cranial nerve disorders, cognitive symptoms, alteration of consciousness, coma.

NEUROLOGICAL ANAMNESIS (skill) - Onset, progression and characteristics of the main neurological dysfunctions

NEUROLOGICAL EXAM (skill) Mental functions, including orientation, consciousness, language and memory, cranial nerves, motor functions: strenght, tone, trophism, involuntary mobements, deep and superficial reflexes, coordination, primary sensory functions (pain, temperature, posistion, pallesthesia), secondary sensory functions (stereognosia, graphesthesia, discrimination), stance and gait, meningism and auscultation of carotid bruit.

NEUROIMAGING AND NEUROPHYSIOLOGICAL EXAMS, LUMBAR PUNCTURE, CAROTID SONOLOGY, COGNITIVE TESTS (knowledge and observation)

LOCALIZATION AND DIFFERENTIAL DIAGNOSIS OF THE

MAIN NEUROLOGICAL DISORDERS (knowledge of aethiology, neuropathology, clinical presentation, diagnosys, medical and surgical therapy):

Cerebrovascular disorders, brain and spinal cord tumors, headache, demielinating disorders, nerodegenerative disorders, alterations of consciousness and coma, epilepsy, peripheral nervous system alterations, muscular disorders.

NEUROLOGICAL EMERGENCIES (diagnosis and therapy) - Coma, endocranial hypertension, meningoencephalitis, acute polineuropathy, subaracnoid hemorrhage, trauma, acute compressive myelopathy

NEUROLOGICAL COMPLICATIONS OF SYSTEMIC DISORDERS (diagnosis) - neurological complications of alcholisms, HIV, COVID-19

## **Prerequisites**

knowledge of propedeutical courses: anatomy, physiology, biochemistry, general pathology, pharmacology

## **Teaching form**

frontal lessons, small group lessons, practical activity in the ward and outpatients clinics

## **Textbook and teaching resource**

Malattie del Sistema Nervoso, Carlo Ferrarese et al McGraw-Hill, Seconda edizione 2016 Collana "Core Curriculum", 2011 Hauser S.L. Harrison Neurologia Clinica Ed. McGraw-Hill, I edizione italiana 2006 Ropper A.H. Adams e Victor Principi di Neurologia Ed. McGraw-Hill, VIII edizione italiana 2006 Fazio C. e Loeb E. Neurologia di Fazio Loeb Ed. Società Editrice Universo, IV edizione, ristampa 2005

## **Semester**

5th year firset semester

## **Assessment method**

Oral exam

Oral discussion will start with the presentation of a sham clinical case to evaluate the clinical reasoning of the student, based on knowledge of the field

## **Office hours**

by appointment

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## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY

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