UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Clinics

2021-3-H4102D018-H4102D055M

Aims

The aim of the course is to provide students with basic knowledge of Orthopaedics and Traumatology, and fundamentals of rheumatology and hand surgery.

At the end of the course/activity block, the student will be able to:

- Approach an orthopaedics and traumatology patient
- Harvest an orthopaedic and traumatological medical history
- Use the appropriate terminology to communicate with patients and medical staff
- Identify, examine and describe the main pathological symptoms and signs in relation to orthopaedic and traumatological pathology. Highlight on a multidisciplinary approach, exploiting the PBL Method.
- Theory and practical skills to perform the basic clinical examination tests in general orthopaedics and traumatology.

Contents

The course aims at providing the students with the main knowledge about orthopaedics, traumatology and rheumatology. The program provide a comprehensive overview of the basic clinical presentations and treatment options of patient presenting muscoloskeletal problems including metabolic bone diseases, rheumatologic disorders, skeletal and extraskeletal calcification/ossification syndrome, osteoarticular infections, overload syndroms of tendon, muscles and joints, osteonecrosis and osteoarthrosis, complex regional pain syndrome, basis

of hand surgery, traumatology, principles of orthoplastic and microsurgery, diseases and injuries by site, paediatric orthopaedics.

Detailed program

§ Metabolic bone diseases

o Osteoporosis

o Osteomalacia

o Hypophosphatasia

o Renal osteodystrophy

o Vitaminosis

o Pharmacologic metabolic bone disease

§ Rheumatologic disorders

o Rheumatic arthritis

o Crystal induced arthritis

o Transient arthritis

o Pathology of the synovium

§ Skeletal and extraskeletal calcification/ossification syndrome

o Tumoral calcinosis

o Posttraumatic calcification / myositis ossificans (traumatic and not traumatic)

o Calcific myonecrosis and tendinitis

o Periarticular crystal deposition (Milwaukee Shoulder, gout)

o Sclerosing bone dysplasias

o Enostosis

o Osteopetrosis

§ Osteoarticular infections

- o Ostemyelitis
- o Septic arthritis
- o Spondylodiskytis

§ Sport Injuries

o Athlete evaluation

o Overload syndroms of tendon, muscles and joints.

o Muscolar lesions.

o Ankle sprain.

§ Osteoarthrosis and osteonecrosis

§ Complex regional pain syndrome

§ Basis of hand surgery

- o Surgical anatomy of the hand
- o Compression neuropathy
- o Infections of the hand
- o Tendon injuries
- o Fibromatosis (Dupuytren)
- o Fractures and dislocation of the wrist, carpus and hand

§ Traumatology - General principles

- o General evaluation of a fracture
- o Basics of fracture classification
- o Polytrauma - principles of ATLS
- o Child abuse

§ Principles of orthoplastic- and microsurgery

- Principles of reconstructive surgery
- Principal flaps in orthopaedics and traumatology

§ Hip

- Nerve entrapment syndroms
- Hip dysplasia
- FAI
- Fractures of the femur and pelvis; Fractures and dislocation of the hip.

§ Knee

- Meniscal injuries
- ACL/PCL injuries
- Collateral ligament injuries
- Malalignment
- Fractures and dislocation of the knee and leg

§ Foot and ankle

- Ligamentous injuries
- Deformities of the toes
- Neurological disorders
- Nerve entrapment syndroms
- Interdigital neuroma
- HMSN (*Hereditary* motor and sensory neuropathies / Charcot-Marie-Tooth)
- Fractures and dislocations of the foot and ankle

§ Shoulder

- Instability
- Nerve entrapment syndroms
- Rotator cuff diseases

- Fractures and dislocation of the shoulder and humerus

§ Elbow

- Nerve entrapment syndroms
- Ligament injuries and instability
- Tendon injuries
- Fractures and dislocation around the elbow

§ Paediatric Orthopaedics

- Developmental Dysplasia of Hip
- Paediatric Foot Disorders (clubfoot , Flexible pes planus, accessory bones, Vertical talus and tarsal coalition)
- Epiphyseal Growth-Plate Injuries
- Congenital Muscolar torcicollis
- Idiopathic and congenital scoliosis
- Scheurmann's disease
- Spondylolysis / spondylolisthesis
- Limb Length Discrepancy
- Slipped Capital Femoral Epiphysis
- Osteochondrosis
- Osteochondritis dissecans

Prerequisites

To adequately address the course, it is strongly suggested to refresh the macroscopic and histological muscoloskeletal anatomy and the knowledge of the physiology and biochemestry.

Teaching form

Frontal lectures.

Clerkship program, with rotation in small groups in surgical specialties, general practitioner and in the emergency department:

- PBL / CBL

- Practice sessions with puppets or among students/teachers

- Attending clinical wards

Textbook and teaching resource

Orthopaedic Pathology 3rd Ed. Vigorita Vincent J. Wolters Kluwer. ISBN-13: 978-1451192025 ISBN-10: 9781451192025

Oxford Handbook of Orthopaedics and Trauma. Gavin Bowden, Martin McNally, Simon Thomas, and Alexander Gibson. Oxford university press. ISBN: 9780198569589

Physical Examination for Surgeons: An Aid to the MRCS OSCE. Petrut Gogalniceanu, James Pegrum, William Lynn. Cambridge ed. ISBN-13: 978-1107625549 ISBN-10: 1107625548

Gray's Anatomy: The Anatomical Basis of Clinical Practice. 41th Ed. Susan Standring. Elsevier. ISBN-13: 978-0702052309; ISBN-10: 0702052302

Review articles provided throughout the course

Semester

Assessment method

Ongoing tests after each PBL/PCL (PBL-restitution):

- Short essay (eventually also in groups)

- Practical tests/maneuvers

- Short paper/composition in relation to problems treated with PBL/PCL

- Multiple choice tests

Final locomotor vertical track test:

- A written test with 33 multiple-choice questions each with only one correct answer and 1 open question. No penalties will be given to missing or wrong answers.

- Collection of the single short papers/compositions

- Development of clinical skills is assessed by OSCE (Objective structured clinical examination). Each OSCE

faces the student with a unique clinical case which will test particular skills such as history-taking, physical examination, practical tests/maneuvers, communication skills, test/data interpretation, medical decision-making. Each student receives feedback from the assessor as well as overall scores for each OSCE.

Office hours