



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Clinics

1920-3-H4102D018-H4102D055M

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#### Aims

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

Metabolic bone diseases

Rheumatologic disorders

Skeletal and extraskkeletal calcification/ossification syndrome

Osteoarticular infections

Overload syndroms of tendon, muscles and joints

Osteonecrosis and osteoarthritis

Complex regional pain syndrome

Basis of hand surgery

Traumatology - General principles

Principles of orthoplastic- and microsurgery

Diseases and injuries by site

## **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 Renal disease
- 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

§ Enostosis

§ Osteopetrosis

- o Ossicles

§ Osteoarticular infections

- o Osteomyelitis
- o Septic arthritis
- o Spondylodiskytis

## § Sport Injuries

Athlete evaluation

Overload syndroms of tendon, muscles and joints.

Muscular lesions.

Ankle sprain.

§ Osteonecrosis and osteochondrosis

§ Osteoarthritis

§ 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

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

#### § Hip

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

#### § Knee

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

## § Foot and ankle

- o Ligamentous injuries
- o Deformities of the toes
- o Neurological disorders

## § Nerve entrapment syndroms

## § Interdigital neuroma

## § HMSN (*Hereditary* motor and sensory neuropathies / Charcot-Marie-Tooth)

- o Fractures and dislocations of the foot and ankle

## § Shoulder

- o Instability
- o Nerve entrapment syndroms
- o Rotator cuff diseases
- o Fractures and dislocation of the shoulder and humerus

## § Elbow

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

## § Rehabilitation medicine

- o Amputations and prostheses

## Orthoses

## § Paediatric Orthopaedics\_

- o Developmental Dysplasia of Hip
- o Paediatric Foot Disorders (clubfoot , Flexible pes planus, accessory bones, Vertical talus and tarsal coalition )
- o Epiphyseal Growth-Plate Injuries

- o Congenital Muscular torticollis

- o Idiopathic and congenital scoliosis

- o Scheurmann's disease

- o Spondylolysis / spondylolisthesis

- o Limb Length Discrepancy

- o Slipped Capital Femoral Epiphysis

- o Osteochondrosis (Legg Perthes Calve disease; Osgood-Schlatter disease ; Sever Disease) Osteochondritis dissecans

## **Prerequisites**

Basic knowledge of anatomy, physiology and biochemistry.

## **Teaching form**

Frontal lectures.

Clerkship program, with rotation in small groups (about max 10 students) 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

## **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:

- Multiple choice tests
- Practical tests/maneuvers
- 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**

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