

## Medicine and Surgery degree course

Integrated course: **Musculoskeletal disorders**

SDS: **MED/33**

Number of credits: **4 ECTS**

Professors:

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### PREREQUISITES

Basic concepts of musculo-skeletal anatomy and human physiology and general pathology are needed. Knowledge of important notions on calcium/phosphorus metabolism, connective tissue histology and osteo-metabolic processes (osteo-genetic and osteo-resorption) are also requested.

### LEARNING OBJECTIVES

The learning objectives of the course is to provide the student the basic principles of the most common trauma and degenerative disorders of the musculoskeletal system. For each disorder condition, the most common clinical signs, the most appropriate imaging techniques to be used and the most appropriate surgical techniques will be described.

### LEARNING OUTCOMES

#### knowledge and understanding

At the end of the lessons the student should be able to:

Know the main bone and soft tissue diseases

Know the principal criteria of the classification of orthopedic diseases and traumatologic lesions

Know the main signs and symptoms and laboratory parameters in orthopedic diseases

Know the main signs and symptoms in the traumatic musculoskeletal lesions

Know the most used clinical tests to evaluate and diagnose the different orthopaedic disorders

Know the most appropriate imaging to diagnose an orthopedic disorders (capsuloligamentous or degenerative lesions)

Recognize the main fractures on radiographic examinations

Recognize the most frequent sport med, degenerative and musculoskeletal tumor lesions

Know the most appropriate treatments for each of the musculoskeletal disorders.

Know the management of pharmacological, rehabilitative and thermal therapeutic strategies in orthopedic diseases and musculoskeletal lesions.

### COURSE SYLLABUS

1. General principles of fractures , Osteoarthritis
2. Pediatric Orthopaedics (clubfoot, Hip Dysplasia, Kyphosis and Scoliosis, Postural defects and physeal fractures)



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3. Shoulder (instability, subacromial impingement, RC diseases, SLAP, shoulder arthritis and RC arthropathy)
4. Knee (meniscal injuries, ligament injuries, osteochondral lesions, patellofemoral disorders, knee arthritis)
5. Pelvis and Hip (muscle injuries, bursitis, femoroacetabular impingement, hip osteonecrosis, hip arthritis, coxa valga e coxa vara)
6. Medical aspects of sports medicine (Tendinopathies)
7. Foot and Ankle (hallux valgus, arthritic diseases, postural disorders, tendon disorders, diabetic foot)
8. Elbow and Hand
9. Spine
10. Tumors (soft tissue and bone)
11. Trauma (care of the multiple injured patient, principles of fractures)
12. Upper extremity fractures
13. Lower extremity fractures
14. Spine and pelvis fractures
15. Osteoporosis

### **COURSE STRUCTURE**

The Course is structured in 40 hours of frontal teaching, divided into lessons of 2 hours according to the academic calendar.

### **COURSE GRADE DETERMINATION**

The verification of the preparation of the students will take place through a multiple choices test. During the written examination the Examining Commission will assess the ability of the Student to apply the knowledge and will ensure that the skills are adequate to support and solve problems of orthopaedic and traumatology nature.

### **OPTIONAL ACTIVITIES**

The student will have the opportunity to participate to Seminars, clinical and research internship. Those activity topics will not be included within the test.

## **READING MATERIALS**

Mark D. Miller Stephen R. Thompson Miller's Review of Orthopaedics 7th Edition

A. Mancini, C. Morlacchi , “Clinica Ortopedica” Manuale-Atlante; V Edizione A cura di F.Franceschi e F Mancini; Piccin editore

Jon C. Thompson: Netter’s Concise Orthopaedic Anatomy, Elsevier (2016)