

**ISTANBUL OKAN UNIVERSITY**

**FACULTY OF MEDICINE**

**MED529**

**ORTHOPAEDICS AND TRAUMATOLOGY**

**COURSE PROGRAM**

**LECTURERS**

Prof. Dr. Kaya Akan

Prof. Dr. Hasan Hilmi Muratlı

Assist. Prof. Dr. Cengiz Çabukoğlu

Assist. Prof. Dr. Mustafa Çakır

Assist. Prof. Dr. İftikhar Gurbanov

**MED529 Orthopaedics and Traumatology (4 credits)**

Aim of the Course

The purpose of this course is to teach students the clinical symptoms of congenital diseases often encountered in Türkiye, infections of the bones and joints, diseases of the spine and general approach to fractures of the bones.Students have to recognize the diagnostic tests and basic principles of diagnosis and treatments of emergency patients with orthopedic problems. *Prerequisites: MED401, MED402, MED403, MED404, MED405, MED411,MED412, MED413 and MED414.*

Learning Objectives

At the end of this course the student will be able to:

* Apply main principles of approach to urgent patient and its stages and able to apply it.
* Apply triangular bandage and to fixate of lower extremities.
* Obtain patient history and to do physical examination.
* Inform students about taking patient history and performing physical examination and let the medical students to internalize the information by practicing it and be able to apply the information appropriately.
* Describe the diagnosis of fractures and dislocations and general approach to their treatment.
* Describe the causes, formation, clinical course and diagnosis of congenital and acquired diseases of
* musculoskeletal system.
* Describe the preventive approaches in congenital and acquired diseases of musculoskeletal system.
* Describe the particular approach to diseases which are problematic for public health in Turkey because of their frequency or economic burden
* Have some general information about surgical approach to certain orthopedics and traumatology
* conditions.

Course Content

* Introduction to orthopedics and traumatology
* Patient evaluation in orthopedics and traumatology
* Musculoskeletal development
* Bone, skeletal muscle and joint biology
* Fractures: general knowledge and classification
* Radiologic examination in orthopedics
* First aid in trauma
* Approach to open fractures
* Physical examination of the upper limb
* Physical examination of the hip and spine
* PhysicaL examination of the knee
* Physical examination of foot and ankle
* Practical Session (History taking&Symptomatology)
* Practical Session (Lab request&X-ray evaluation)
* Practical Session (Local anesthesia&Tourniquet application )
* Practical Session (Medical Dressing&Surgical glove training)
* Physical examination in children
* Pediatric fractures - lower extremity
* Pediatric fractures - upper extremity
* Practical Session (Casting in pediatric patients)
* Fractures of the spine
* Fractures of the pelvis & traumatic dislocation of the hip
* Practical Session (Physical examination of the spine)
* Practical Session (Physical examination of the pelvis&hip)
* Fractures and dislocations of the shoulder and elbow
* Hand and wrist fractures
* Practical Session (Physical examination of the elbow&wrist)
* Practical Session (Physical examination of the shoulder)
* Developmental dysplasia of the hip
* Pes Equinovarus & Childhood lower extremity problems
* Perthes and other osteochondroses
* Practical Session (Pavlik harness application – casting in PEV)
* Fractures of the proximal and shaft of femur
* Fractures around the knee
* Fractures of tibial shaft and foot&ankle
* Practical Session (Lower extremity casting)
* Complications of fractures and dislocations
* Musculoskeletal infections
* Spinal infections (Pott and spondylodiscitis)
* Practical Session (Musculoskeletal Case discussion)
* Osteoporosis and osteomalacia
* Metabolic disorders
* Degenerative joint diseases (primary)
* Degenerative joint diseases (secondary)
* Neuromuscular Disorders -1-2
* Practical Session (Neuromuscular exam & normal gait)
* Entrapment Neuropathies
* Tendinitis and soft tissue injuries
* Introduction to bone and soft tissue tumors&evaluation
* Benign bone tumors
* Malignant bone tumors
* Metastatic bone tumors
* Scoliosis
* Adolescent Kyphosis
* Spinal stenosis
* Spinal infections
* Sports Medicine - shoulder
* Sports Medicine - knee
* Practical Session (Video presentation knee)
* Practical Session (Video presentation shoulder)
* Biomaterials and principles of osteosynthesis
* Hallux valgus -rigidus and other foot disorders
* Sports Medicine foot and ankle
* Practical Session (arthroscopic ankle anatomy presentation)

**COURSE INFORMATION**

Theoretical : 50 saat

Practical : 63 saat

Duration : 12 days

Location : Okan University Hospital

**LEARNING METHODS**

Theroretical Courses / Seminars/ / Case discussion / Problem based learning

Clinic visits / Patient assessment / Case investigations

Outpatient unit / Clinical observation

**ASSESSMENT:**

* Clinical performance assessment
* Exam
* OSCE

**COURSE PROGRAM**

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| DATE | TIME | COURSE SUBJECT | FACULTY |
| 1.DAY | 08:00-08:50 | Introduction to orthopedics and traumatology | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Patient evaluation in orthopedics and traumatology | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Musculoskeletal development | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Bone, skeletal muscle and joint biology | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 14.00-14.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 15.00-15.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 16.00-16.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
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| 2. DAY | 08:00-08:50 | Fractures: general knowledge and classification | Assist. Prof İftikhar Gurbanov |
|  | 09:00-09:50 | Radiologic examination in orthopedics | Assist. Prof İftikhar Gurbanov |
|  | 10:00-10:50 | Approach to open fractures | Assist. Prof İftikhar Gurbanov |
|  | 11:00-11:50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 14.00-14.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 15.00-15.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 16.00-16.50 | Practical Session | Assist. Prof Mustafa Çakır |
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| 3. DAY | 08:00-08:50 | Physical examination of the upper limb | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Physical examination of the hip and spine | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | PhysicaL examination of the knee | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Physical examination of foot and ankle | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 14.00-14.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 15.00-15.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 16:00-16:50 | Practical Session | Assist. Prof İftikhar Gurbanov |
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| 4.DAY | 08:00-08:50 | Physical examination in children | Assist. Prof İftikhar Gurbanov |
|  | 09:00-09:50 | Pediatric fractures - lower extremity | Assist. Prof İftikhar Gurbanov |
|  | 10:00-10:50 | Pediatric fractures - upper extremity | Assist. Prof İftikhar Gurbanov |
|  | 11:00-11:50 | Practical Session |  |
|  | 12:00-13.00 | LUNCH | Assist. Prof İftikhar Gurbanov |
|  | 13.00-13.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 14.00-14.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 15.00-15.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 16.00-16.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
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| 5.DAY | 08:00-08:50 | Fractures and dislocations of the shoulder and elbow | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Hand and wrist fractures | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Fractures of the spine | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Fractures of the pelvis & traumatic dislocation of the hip | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Prof.Dr. Hasan Hilmi Muratlı |
|  | 14.00-14.50 | Practical Session | Prof.Dr. Hasan Hilmi Muratlı |
|  | 15.00-15.50 | Practical Session | Prof.Dr. Hasan Hilmi Muratlı |
|  | 16:00-16:50 | Practical Session | Prof.Dr. Hasan Hilmi Muratlı |
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| 6.DAY | 08:00-08:50 | Fractures of the proximal and shaft of femur | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Fractures around the knee | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Fractures of tibial shaft and foot&ankle | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Fractures of tibial shaft and foot&ankle | Prof. Dr. Kaya H. Akan |
|  | 08:00-08:50 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 14.00-14.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 15.00-15.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
|  | 16.00-16.50 | Practical Session | Assist. Prof. Cengiz Çabukoğlu |
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| 7.DAY | 08:00-08:50 | Developmental dysplasia of the hip | Prof.Dr. Hasan Hilmi Muratlı |
|  | 09:00-09:50 | Pes Equinovarus & Childhood lower extremity problems | Prof.Dr. Hasan Hilmi Muratlı |
|  | 10:00-10:50 | Perthes and other osteochondroses | Prof.Dr. Hasan Hilmi Muratlı |
|  | 11:00-11:50 | Neuromuscular Disorders -1 | Prof.Dr. Hasan Hilmi Muratlı |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 14.00-14.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 15.00-15.50 | Practical Session | Assist. Prof Mustafa Çakır |
|  | 16:00-16:50 | Practical Session | Assist. Prof Mustafa Çakır |
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| 8.DAY | 08:00-08:50 | Complications of fractures and dislocations | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Musculoskeletal infections | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Osteoporosis and osteomalacia | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Metabolic disorders | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Dr. Öğr.Üyesi Mustafa Çakır |
|  | 14.00-14.50 | Practical Session | Dr. Öğr.Üyesi Mustafa Çakır |
|  | 15:00-15:50 | Practical Session | Dr. Öğr.Üyesi Mustafa Çakır |
|  | 16:00-16:50 | Practical Session | Dr. Öğr.Üyesi Mustafa Çakır |
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| 9.DAY | 08:00-08:50 | Introduction to bone and soft tissue tumors&evaluation | Assist. Prof İftikhar Gurbanov |
|  | 09:00-09:50 | Benign bone tumors | Assist. Prof İftikhar Gurbanov |
|  | 10:00-10:50 | Malignant bone tumors | Assist. Prof İftikhar Gurbanov |
|  | 11:00-11:50 | Metastatic bone tumors | Assist. Prof İftikhar Gurbanov |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Pratik (Pavlik bandajı takılması ve PEV alçısı prensipleri) | Assist. Prof. Cengiz Çabukoğlu |
|  | 14.00-14.50 | Pratik (Dirsek ve el bileği muayenesi) | Assist. Prof. Cengiz Çabukoğlu |
|  | 15.00-15.50 | Pratik- (Omuz muayenesi) | Assist. Prof. Cengiz Çabukoğlu |
|  | 16:00-16:50 | Pratik (Alt ekstremite alçılaması) | Assist. Prof. Cengiz Çabukoğlu |
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| 10.DAY | 08:00-08:50 | Entrapment Neuropathies | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Tendinitis and soft tissue injuries | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Scoliosis | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Spinal infections | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 14.00-14.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 15.00-15.50 | Practical Session | Assist. Prof İftikhar Gurbanov |
|  | 16:00-16:50 | Practical Session | Assist. Prof İftikhar Gurbanov |
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| 11. DAY | 08:00-08:50 | Sports Medicine - shoulder | Prof. Dr. Kaya H. Akan |
|  | 09:00-09:50 | Sports Medicine - knee | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 | Hallux valgus -rigidus and other foot disorders | Prof. Dr. Kaya H. Akan |
|  | 11:00-11:50 | Sports Medicine foot and ankle | Prof. Dr. Kaya H. Akan |
|  | 12:00-13.00 | LUNCH |  |
|  | 13.00-13.50 | Practical Session |  |
|  | 14.00-14.50 | Practical Session |  |
|  | 15.00-15.50 | Practical Session |  |
|  | 16:00-16:50 | Practical Session |  |
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| 12. DAY | 09:00-09:50 | WRITTEN EXAM | Prof. Dr. Kaya H. Akan |
|  | 10:00-10:50 |  |  |
|  | 11:00-11:50 | OSCE | Prof. Dr. Kaya H. Akan |
|  |  |  | Assist. Prof İftikhar Gurbanov |