COURSE INFORMATON					
Course Title	Code	Semester	L+P Hour	Credits	ECTS
Orthopedics and Traumatology (Clinical Clerkship)	MED501	Phase 5/9-10	29+41	5	5*

^{*} ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

Prerequisites	The student that joins this course, should completed Phase 1, 2, 3
	and 4 courses of medical faculty.

Cycle including First Cycle Degree (One Tier Programme)
ory onal/Clinical Clerkship (Professional and Clinical Skills: kills performance at introductory clerkship level)
kman, MD, Assoc. Prof.
Meriç, MD, Prof. ombacı, MD, Prof.
kman, MD, Assoc. Prof.
ağrı Aksu, MD, Assist. Prof.
onga, MD. Spec.
se aims to equip the clerkship attendees with necessary ge and skills to: convey necessary knowledge on symptoms of congenital, acquired or traumatic clinical conditions related to musculoskeletal system, equip students with knowledge, skills and attitudes required to detect clinical sings in clinical conditions related to musculoskeletal system, equip students with knowledge, skills and attitudes required to employ diagnostic tools and treatment modalities in clinical conditions related to musculoskeletal system.
ng short arm cast on training model,

Learning Outcomes	Program Outcomes (APK)	Teaching Methods	Assessment Methods
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At the end of this clerkship, the student should be able to:				
	explain anatomy and physiology of musculoskeletal system, besides pathology of clinical conditions related to musculoskeletal system describe diagnosis of traumatic, skeletal and soft tissue pathologies, and their management in emergency states describe congenital pediatric orthopedic problems and general treatment strategies describe physiopathological causes of degenerative disorders and optimal managements describe degenerative spinal disorders, spine deformities and traumatic spine disorders explain diagnostic and therapeutic modalities in sports injury describe classification, diagnosis and treatment modalities in musculoskeletal tumors	1.1.1, 1.1.6, 2.5.3, 2.4.2, 2.4.1	1, 2, 4, 6,9	A, B, D
Ski •	perform orthopedic examination of musculoskeletal system, perform first aid, wound care, bandaging, and management of temporary fracture stabilization, in case of fracture	1.1.1. 2.1.1 1.1.2. 2.2.3 3.1.1	1, 2, 4, 5, 9	A, B, D
Att	be aware of importance of differentiation of musculoskeletal diseases and fractures, make guidance to patient about treatment, have good communication with patient and accompanying persons or care	1.1.2., 2.1.1.,, 2.5.3, 3.1.3	1, 2, 4, 6, 9	A, B, D
Col	mpetencies: take the history of patient check general condition and vital signs assessment exam the musculoskeletal system read direct radiographs and assessment apply bandage and tourniquet, do appropriate patient transportation transport amputated limb after trauma arrange appropriate initial treatment, suture superficial wounds and removal of sutures	1.1.2.,.2.1.1., . 2.4.2, 2.4.3	1, 2, 4, 6, 7	A, B, D

CONTACT HOURS (CH)

- 1. Theoretical-Class/Auditorium/Conference Hall/Multimedia
 - 1.1. Lecture/Tutorial
 - 1.2. Case report
 - 1.3. Case presentation
 - 1.4. Research seminar
 - 1.5. Seminar
 - 1.6. Student seminar/Journal club
 - 1.7. Invited speaker
 - 1.8. Hospital conference
 - 1.9. Online/Distance or e-learning (paper based or ICT based)
 - 1.10.Other:
- 2. Theoretical-Group Activity/Interactive
 - 2.1. Case discussion
 - 2.2. Discussion class
 - 2.3. Small group study session/Problem solving session/Brainstorm session
 - 2.4. Exercise class
 - 2.5. Oral presentation and criticism
 - 2.6. Panel
 - 2.7. Workshop
 - 2.8. Online/Distance or e-learning (paper based or ICT based)
 - 2.9. Other:
- 3. Practice Based-Laboratory/Class
 - 3.1. Demonstration class
 - 3.2. Laboratory teaching
 - 3.3. Clinical skills laboratory
 - 3.4. Small group study session/Problem solving session
 - 3.5. Exercise class
 - 3.6. Workshop (practical class)
 - 3.7. Other:
- 4. Clerkship (Clinical practice and training)
 - 4.1. Field study/Fieldwork
 - 4.2. Outpatient clinic
 - 4.3. Patient bedside
 - 4.4. Imaging round
 - 4.5. Laboratory round
 - 4.6. Work based practice
 - 4.7. Grand round
 - 4.8. Operating room
 - 4.9. Invasive Intervention room
 - 4.10. Night shift at ward
 - 4.11. Night shift at intensive care unit
 - 4.12. Night shift at emergency care unit
 - 4.13. Other:
- 5. Work placement/Internship (Clinical performance under supervision)
 - 5.1. Field study/Fieldwork
 - 5.2. Outpatient clinic
 - 5.3. Patient bedside
 - 5.4. Imaging round
 - 5.5. Laboratory round 5.6. Work based practice
 - 5.7. Grand round
 - 5.8. Operating room
 - 5.9. Invasive intervention room
 - 5.10. Night shift at ward
 - 5.11. Night shift at intensive care unit
 - 5.12. Night shift at emergency care unit
 - 5.13.Other:
- INDEPENDENT STUDY HOURS (ISH)

Teaching/Learning Methods:

	. KNOWLEDGE (Levels: Knowledge, Comprehension, Application,
	Analysis, Synthesis, Evaluation)
	6.1. Theoretical/Written/Oral exam/s
	6.2. Presentation
	6.3. Seminar
	6.4. Discussion 6.5. Session
	6.6. Research paper writing
	6.7. Project writing
	6.8. Report writing
	6.9. Dissertation writing
	6.10. Homework
	6.11. Investigation/Survey study
	6.12.Other:
	. SKILLS: (Levels: Imitation, Manipulation, Precision, Articulation,
	Naturalization)
	7.1. Oral/practical exam/s
	7.2. Presentation
	7.3. Seminar
	7.4. Discussion
	7.5. Session
	7.6. Exercise
	7.7. Workshop
	7.8. Imaging round 7.9. Laboratory round
	7.9. Laboratory round 7.10. Grand round
	7.11.Other:
	. ATTITUDES (Receiving, Responding, Valuing, Organization,
	Characterization)
	8.1. Questionnaire (self-assessment)
	8.2. Paper case
	8.3. Other:
	. COMPETENCY (Doing/Making, Co-ordinating/Operating,
	Observing/Analysing/Listening to/ Controlling/Driving,
	Choosing/Communicating/Enhancing,
	Conceiving/Visioning/Foreseeing)
	9.1. Portfolio preparation
	9.2. Clinical performance at outpatient wards
	9.3. Clinical performance at inpatient wards
	9.4. Clinical performance at night shifts (ward, emergency care unit,
	intensive care unit)
	9.5. Other: (e.g. mini-clinical exam, etc.)
	 PROFICIENCY (Doing/Making, Co-ordinating/Operating, Observing/Analysing/Listening to/ Controlling/Driving,
	Choosing/Communicating/Enhancing,
	Conceiving/Visioning/Foreseeing)
	10.1. Portfolio preparation
	10.2. Clinical performance at outpatient wards
	10.3. Clinical performance at inpatient wards
	10.4. Clinical performance at night shifts (ward, emergency care unit,
	intensive care unit)
	10.5.Other: (e.g. mini-clinical exam, etc.)
	. Knowledge Assessment
	a. Written Exam (MCQ+EMQ+KFQ) (F, S)
	b. Objectively Structured Oral Examination (S)
_	c. Oral Examination (F)
Assessment	d. Other:
Methods:	Skills Assessment Practical Evamination (E)
	a. Practical Examination (F) b. Objectively Structured Practical Examination (S)
	b. Objectively Structured Practical Examination (S)
	c. Mini Clinical Examination (S)d. Other:
	a. Other. Attitude Assessment

*F: Forn	native, S: Summative
	. Other:
	e. Seminar Performance Assessment (F)
	d. Presentation Performance Assessment (F)
	c. Professional Portfolio Assessment (F)
I	o. Clerkship/Internship Guide/Checklist Assessment (F, S)
	a. Mini Clinical Examination (S)
E. Profi	ciency Assessment
	g. Other:
	Project Writing Assessment (S)
	e. Seminar Performance Assessment (F)
	d. Presentation Performance Assessment (F)
	c. Professional Portfolio Assessment (F)
	c. Clerkship/Internship Guide/Checklist Assessment (F, S)
	a. Mini Clinical Examination (S)
	petency Assessment
	e. Other:
	d. Observation of behaviour (360°) (F, S)
	c. Paper case (S)
	o. Questionnaire (self-assessment) (F)
	a. Mini Clinical Examination (S)

COURSE CONTENT		
Week	Topics	Study Materials
1	Introductory Session Introduction to Orthopedics and Traumatology	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Basic Principles of Fractures	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Osteomyelitis	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Pelvic Fractures	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Shoulder and Elbow Disorders	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Congenital Anomalies of the Lower Extremity	Textbook, Lecture Notes, Checklists, Guidelines, Case Files

1	Lecture Pes Equinovarus	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Dislocations and Fractures of the Upper Extremity	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Septic Arthritis	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Disorders of the Foot and Ankle in Adults	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Lecture Open Fractures	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Clinical Experience Surgical	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Clinical Skills Learning Examination of Knee	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Case Presentation (Student) or Ward Round or Preop X-Ray Round	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Clinical Skills Learning Examination of Hip	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Clinical Skills Learning Examination of Shoulder	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
1	Clinical Skills Learning Examination of Ankle	Textbook, Lecture Notes, Checklists, Guidelines, Case Files

1	Clinical Skills Learning Examination of Spine	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Developmental Dysplasia of the Hip	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Osteoporosis, Avascular Necrosis of the Bone	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Osteoarthritis, Faik Altıntaş	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Perthes Disease,	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Shoulder Disorders	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Knee Problems in Sports Medicine	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Arthroscopy, Cartilage Biology and Injuries	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Cerebral Palsy	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Hand Surgery	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Lecture Dislocations and Fractures of the Lower Extremity,	Textbook, Lecture Notes, Checklists, Guidelines, Case Files

2	Clinical Experience Surgical	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Clinical Skills Learning Gait Evaluation	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Case Presentation (Student) or Ward Round or Preop X-Ray Round	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Clinical Skills Learning Pediatric Examination	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Clinical Skills Learning Wound Management	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Clinical Skills Learning Management After Sports Injury	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
2	Clinical Skills Learning Examination of Cerebral Palsy	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Benign Tumors of the Bone	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Malignant Tumors of the Bone	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Spinal Trauma and Fractures	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Pediatric Fractures.	Textbook, Lecture Notes, Checklists, Guidelines, Case Files

3	Lecture Elbow Disorders	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Fracture Healing	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Arthroplasty	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Lecture Scoliosis	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Case Presentation (Student) or Ward Round or Preop X-Ray Round	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Clinical Experience Surgical	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Clinical Skills Learning Cast Aplication	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Clinical Skills Learning Hand Examination	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Clinical Skills Learning Pediatric Hip Examination	Textbook, Lecture Notes, Checklists, Guidelines, Case Files
3	Clinical Skills Learning Management After Trauma	Textbook, Lecture Notes, Checklists, Guidelines, Case Files

NCC 2014 - Essential Medical Procedures (National Core Curriculum)	Performance Level
General and symptom-based history taking	3

General condition and vital signs assessment	3
Musculoskeletal system examination	3
Preparing patient file	3
Reading direct radiographs and assessment	3
Preparing and applying splints	3
Applying bandage and tourniquet	3
Incision and drainage of skin and soft tissue abscess	3
Appropriate patient transportation	3
Cervical collar application	3
Transportation of amputated limb after trauma	2
Superficial suturing and removal of sutures	3

RECOMMENDED SOURCES			
Textbook	 Rockwood and Green Fractures in Adults and Pediatrics, 7th edition Miller's Review of the Orthopaedics 7th edition 		
Additional Resources	1. www.uptodate.com		

Questions Types (Pencil-Paper Tests) Multiple Choice Questions Extended Matching Questions Key Features	Proportion (in Pencil-Paper Tests) 80% 10% 10%
Extended Matching Questions	10%
	1076
Key Features	10%
Noy Foctores	
Total	100%
Other Assessment Methods and Tools	Proportion (in Pass/Fail Decision)
Oral Exam (OE)	50%
Mini Clinical Evaluation Exercise (mini-CEX)	50%
Total	100 %
Pass/Fail Decision	Proportion (in Pass/Fail Decision)
Pencil-Paper Tests	50%
Other Assessments Methods and Tools	50%
Total	100 %

* WEs consists of 50 questions.

Detailed Assessment Tables are shown for each clerkship program in related pages of Academic Program Book.

Assessment details also will be announced and explained in the introductory sessions at the beginning of the clerkship.

	MATERIAL SHARING
Documents	Shared
Assignments	Shared
Exams	After the exam; exam questions, question discussions, After performance assessment; individual performance analysis reports/feedbacks will be shared.

COURSE CATEGORY	Expertise/Field Courses	
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COURSES CONTRIBUTION TO PROGRAM						
COMPETENCE AREA-1 / Professional Practices		Contribution				
COMPETENCE 1.1. Health Service Provider		2	3	4	5	
Competency 1.1.1. Integrates knowledge, skills, and attitudes acquired from basic and clinical medical sciences, behavioral sciences, and social sciences to provide health services.			х			
Competency 1.1.2. Demonstrates a biopsychosocial approach that considers the individual's sociodemographic and sociocultural background without discrimination based on language, religion, race, or gender in patient management.						
Competency 1.1.3. Prioritizes the protection and improvement of individuals' and community's health in the delivery of healthcare services.			х			
Competency 1.1.4. Performs the necessary actions in the direction of maintaining and improving the state of health as considering the individual, social, social and environmental factors affecting health.			x			
Competency 1.1.5. Provides health education to healthy/ill individuals and their families, as well as to other healthcare professionals, by recognizing the characteristics, needs, and expectations of the target audience.						
Competency 1.1.6. Demonstrates a safe, rational, and effective approach in the processes of protection, diagnosis, treatment, follow-up, and rehabilitation in health service delivery.				x		
Competency 1.1.7. Performs interventional and/or non-interventional procedures safely and effectively for the patient in the processes of diagnosis, treatment, follow-up, and rehabilitation.			x			
Competency 1.1.8. Provides healthcare services considering patient and employee health and safety.			x			
Competency 1.1.9. Considers changes related to the physical and socioeconomic environment at both regional and global scales that affect health,			X			

as well as changes in the individual characteristics and behaviors of those who seek healthcare services.		0.5	mau!b:-	tion				
COMPETENCE AREA-2 / Professional Values and Approaches	Contribution		• •					
COMPETENCE 2.1. Adopting Professional Ethics and Principles	1	2	3	4	5			
Competency 2.1.1. Considers good medical practices while performing the profession.				X				
Competency 2.1.2. Fulfills duties and obligations within the framework of ethical principles, rights, and legal responsibilities required by the profession.								
Competency 2.1.3. Demonstrates determined behavior in providing high-quality healthcare while considering the patient's integrity.				x				
Competency 2.1.4. Evaluates own performance in professional practices by considering own emotions and cognitive characteristics. COMPETENCE 2.2. Health Advocate			X					
Competency 2.2.1. Advocates for the improvement of healthcare service delivery by considering the concepts of social accountability and social responsibility in the protection and enhancement of community health.			X					
Competency 2.2.2. Plans and implements service delivery, education, and counseling processes related to individual and community health, in collaboration with all stakeholders, for the protection and improvement of health.			X					
Competency 2.2.3. Evaluates the impact of health policies and practices on individual and community health indicators and advocates for the improvement of healthcare quality.								
Competency 2.2.4. Gives importance to protecting and improving own physical, mental, and social health and takes necessary actions for it.								
COMPETENCE 2.3. Leader-Manager								
Competency 2.3.1. Demonstrates exemplary behavior and leadership within the healthcare team during service delivery.			x					
Competency 2.3.2. Utilizes resources in a cost-effective, socially beneficial, and compliant manner with regulations in the planning, implementation, and evaluation processes of healthcare services as the manager in the healthcare institution.			х					
COMPETENCE 2.4. Team Member								
Competency 2.4.1. Communicates effectively within the healthcare team and takes on different team roles as necessary.				X				
Competency 2.4.2. Displays appropriate behaviors while being aware of the duties and responsibilities of healthcare workers within the healthcare team.				x				
Competency 2.4.3. Works collaboratively and effectively with colleagues and other professional groups in professional practice.				X				
COMPETENCE 2.5. Communicator								
Competency 2.5.1. Communicates effectively with patients, their families, healthcare professionals, and other occupational groups, institutions and organizations.			X					
Competency 2.5.2. Communicates effectively with individuals and groups who require a special approach and have different sociocultural characteristics.			х					
Competency 2.5.3. Demonstrates a patient-centered approach that involves the patient in decision-making mechanisms during the diagnosis,				x				
treatment, follow-up, and rehabilitation processes. COMPETENCE AREA-3 / Professional and Personal Development		Co	ı ntribu	tion				
COMPETENCE 3.1. Scientific and Analytical Approach	Contribution 1 2 3 4		5					
Competency 3.1.1. Plans and implements scientific research, as necessary, for the population it serves, and utilizes the results obtained, as	•	_		x				

Competency 3.1.2. Accesses and critically evaluates current literature	X		
related to their profession.			
Competency 3.1.3. Applies evidence-based medicine principles in the		x	
clinical decision-making process.			
Competency 3.1.4. Uses information technologies to enhance the effectiveness of healthcare, research, and education activities.	X		
COMPETENCE 3.2. Lifelong Learner			
Competency 3.2.1. Manages effectively individual study processes and career development.			
Competency 3.2.2. Demonstrates skills in acquiring, evaluating, integrating new information with existing knowledge, applying to professional situations, and adapting to changing conditions throughout professional career.	x		
Competency 3.2.3. Selects the right learning resources to improve the quality of health care and organizes the learning process.	X		

Activities	Quantity/ day	Duration (Hour)	Total Workload (Hour)
Course Duration (3 weeks)	15	5	75
Hours for off-the-classroom study (Pre-study, practice, review/week)	15	4	60
Homework	-	-	-
Exam	1	2	2
Total Work Load	<u> </u>		137
Total Work Load / 30 (h)			4.56
ECTS Credit of the Course	•		5