

MED 2005 - Musculoskeletal System Disorders

Course Name	Code	Semester	Type of course	Theory (hours)	Group work (hours)	ECTS
Musculoskeletal System Disorders	MED 2005	III	Mandatory	25	46	5
Faculty, the educational program and education level	Faculty of Medicine, one-cycle Educational Program "Medicine"					
Author (s)	<p>Michael Zimlitski –invited teacher Mob.tel.: 599 57 40 60; e-mail: arthrogeo@doctor.com</p> <p>Mustafa Kemal Demir –invited teacher Mob.tel.: (053) 35531246; e-mail: mustafakemal.demir@bahcesehir.edu.tr Consultation day and time - individually</p>					
Educational course format	Lecture Group work					
Educational course Loading	<p>Total: 150 hours Contact hours: 75 h</p> <ol style="list-style-type: none"> 1. Lecture – 25h 2. Group work – 46 h 3. Midterms – 2 h 4. Final exam -2 h <p>Independent work – 75 h</p>					
Prerequisites	MED 1005 - Musculoskeletal System					
The purpose (s) of tutorial course/modules	The aim of this present course is to gain knowledge on the pathogenesis of the disorders related to musculoskeletal system. The signs and symptoms of musculoskeletal disorders, related risk factors, prevention, diagnosis, principles of treatment and rehabilitation will also be discussed.					
Teaching and learning methods	<p>Lecture - Face-to-Face; Lecture notes and readings (power point slides for the lecture) will be provided to each lecture as a PDF file, one slide per page, to facilitate notes taking.</p> <p>Demonstration –anatomical atlases, models, illustrations, slides and other visual aids;</p> <p>Discussion – questions and answers, answers analysis supported with visual aids;</p> <p>Analyses and synthesis of different medical cases;</p> <p>Group work on the clinic base : musculoskeletal disorders clinical pictures, diagnosing and treatment methods;</p> <p>Abstract preparation and presentation - Students choose material from offered problematic topics or</p>					

	<p>independently, search for appropriate material, will work with the books and present about 10 printed pages in PowerPoint format in auditorium for estimation</p> <p>Brief-inquire -short questions and answers.</p> <p>Work with additional literature –independent work with additional literature to deep knowledge about new achievement in this field of area.</p> <p>Consultation –individual support work with students (weekly)</p>
<p>Assessment criteria</p>	<p>Maximum score- 100:</p> <ol style="list-style-type: none"> 1. Midterm assessment -60 scores, that includes: <ol style="list-style-type: none"> 1.1. Attendance -10 scores (0,4X 25=10 scores); 1.2. Activity – 30 scores: <ol style="list-style-type: none"> 1.2.2. Practical skills – max. 10 scores; 1.2.3. Brief-inquire –5 scores; 1.2.4. Discussion – 5 scores; 1.2.5. Abstract– 10 scores. 1.3. Midterm exam – 20 scores <p style="text-align: center;">Group Work are Assessed Based on the Following Criteria (maximum 10 scores)</p> <p>10 scores- Student is able to present complete and thorough knowledge of the subject, a substantial amount of detailed and relevant information; to demonstrate considerable depth of understanding of the studied main and additional literature, to bring forward a balanced view of the main arguments on the issues.</p> <p>9 scores - Student is able to bring forward a consistent number of deductions on most of the topics tackled; to make appropriate comments on the different perspectives for the most of issues, to demonstrate knowledge of the main literature within the subject and the ability to apply received knowledge.</p> <p>8 scores - Student is able to bring forward a consistent knowledge, has properly developed terminology; to demonstrate knowledge of the main literature within the subject and the ability to apply received knowledge.</p> <p>7 scores - Student is able to present some factual information sufficiently linked with the topic, to demonstrate a good understanding of the topics selected; to make a good attempt to bring forward a balanced view of some arguments on the issues. Terminology is partially developed.</p> <p>6 scores - Student is able to make some good comments on the different perspectives on some of the issues; makes poor deductions on most of the topics tackled, analyses some causes and results of human interactivity related to the issues.</p> <p>5 scores - Student is able to demonstrate inconsistent comments on the different perspectives on some of the issues, student has middle level of knowledge, terminology is developed partially, makes poor deductions.</p> <p>4 scores - Student demonstrates general overview of the topics. Terminology is not developed. Information sufficiently linked with the topic, demonstrates irrelevant understanding of the literature.</p> <p>3 scores– Student demonstrates general/superficial and inconsistent knowledge of the subject. No sufficient knowledge of the literature.</p> <p>2 scores - Student demonstrates general comments, no knowledge of the terminology, no consistency.</p> <p>1 score – Student demonstrates insufficient answer, does not know terminology, does not follow to chronologic manner of the answer, mostly wrong, no knowledge of literature.</p>

	<p>0 score - Student demonstrates not even elementary knowledge of the subject.</p> <p>Abstract preparation and presentation's criteria (10 scores - max.):</p> <ol style="list-style-type: none"> 1. Actuality of appointed problem – 1 score; 2. Academic content - 1 score; 3. Literature data's observation in the frame of subject -1score; 4. Correspondence between the research methods and research purpose -1 scores; 5. Coherence of argumentation- 1 score; 6. Correctness of conclusion and the connection with the main text - 1 score; 7. The presented matter's visual and technical aspects - 1 score; 8. Debating and listening culture - 1 score; 9. Accuracy and reliability of indicated references and literature sources – 1 score; 10. Proper language and speaking style – 1 score. <p>1.3. Midterm Exam – 20 scores</p> <p>Written test -30 question, 0,5 score for each – max. 15; verbal test -5 question 1 score for each – max 5; total: 20)</p> <p>Minimal scores of midterm assessment (for final exam) – is 11.</p> <p>2. Final Exam -40 scores</p> <p>Is held in the written test form (test consists of 80 questions, each question is rated as 0,5 score). The final exam would accounted as passed in case of maximum 70% or more ($40 \times 70 / 100 = 28$ scores).</p> <p>Credit will be given to the student if he has collected at minimum 51 scores out of 100. Student's assessment has to be done in the following way:</p> <p>Positive rate:</p> <ul style="list-style-type: none"> • (A) Excellent- 91 or more scores; • (B) Very Good- 81-90 scores; • (C) Good- 71-80 scores; • (D) Satisfactory- 61-70scores; • (E) Enough- 51-60 scores; <p>Negative rate:</p> <ul style="list-style-type: none"> • (FX) Failure - 41-50 scores, which means that a student needs to work more and an independent and considerable further work is required to pass the exam once again to be re-awarded; • (F) Fail – 40 scores or less, which means that the student's diligence is not sufficient and student has to learn the subject all over again. <p>Student can pass the additional exam during the same semester.</p> <p>The time interval between the final and the additional exams should be not less than 10 days.</p>
<p>The basic literature</p>	<ol style="list-style-type: none"> 1. Keith L.Moore, Arthur F.Dalley. Anne M.R.Agur -Clinically Oriented Anatomy, Wolters Cluwer Health Lippincott Williams&Wilkins, 2008; 2. Harry B. Skinner, Patrick J. McMahon Current Diagnosis and Treatment Orthopedics , McGrawHill Education Lange, 2014 3. KV Krishna. Das Textbook of Medicine (Volume I), Jaypee, 2004.

The auxiliary literature	<p>1. Michail Schuenke, Erik Schulte, Udo Schumacher -Atlas of Anatomy (Neck and Internal Organs), Thieme, 2006;</p> <p>2. Richard S. Snell - Clinical Anatomy (An Illustrated review with Questions and explanations, Lippincott Williams&Wilkins, 2003;</p> <p>3. Kim E. Barret, Susan M. Barman Scott Boitano, Heddwen L. Brooks - Ganong's Review of Medical Physiology, McGrawHill Lange, 2012; Section I;</p>
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The tutorial/training course content

№	Subjects	Lecture (hour)	Work in group (hour)
1	Basic pathology, genetic and molecular mechanism of developmental and acquired abnormalities of musculoskeletal system.	5	8
2	Clinical and radiological features of musculoskeletal disorders, pathology of arthritis, tumors of the musculoskeletal system and pharmacology of drugs used in these disorders	5	10
3	Clinical basis of infectious organisms affecting musculoskeletal disorders, their pathogenesis in infectious process, the pharmacotherapy of musculoskeletal disorders	5	8
	Midterm Exam		2
4	Clinical, radiological, pathological aspects of rheumatological disorders, medical pharmacology of anti-inflammatory and musculoskeletal system drugs	5	10
5	Clinical aspects and medical and surgical treatments of orthopaedic and traumatologic disorders of musculoskeletal system, principles of physical rehabilitation of these disorders	5	10
	Final Exam		2

Learning Outcomes

Criteria	Competences
Knowledge and Understanding	Student will have deep and consistent knowledge about the genetic and molecular mechanisms of bone and muscle tissue disease, recognize the pathological processes and clinical picture of musculoskeletal system diseases, familiarize the radiological methods of diagnostics and medical treatment methods.
Applying knowledge	<p>At the end of this block, students will be able to:</p> <ul style="list-style-type: none"> • musculoskeletal organs disorders diagnostics; • working out the treatment and rehabilitation tactics; • take the treatment process under control

Making Judgment	<p>Student will be able to:</p> <ul style="list-style-type: none"> • define the initial and final diagnose on the base of the disorder's status assessment; • choose the proper course of treatment; • have the deep clinical thinking; • critical analyses of received data • perform the differential diagnostics
Communication skills	<p>Will be able to communication with colleagues, have communication skills with the related specialist, able to prepare written reports.</p>
Life-long learning ability	<p>Will be able to use the full spectrum of study resources in consequence, can manage one's own learning process. Understands the importance of life-long learning. Is an independent learner. Understands and specifics of the learning process. Is able to develop a successful strategic plan for learning.</p> <p>Student can search needed information in scientific sources and use this data in practice, can continuously update knowledge and professional development, is able to provide self- assessment objectively. Can proceed on the learning process independently.</p>