

T.C.
ATILIM UNIVERSITY FACULTY OF MEDICINE
EDUCATION IN 2020-2021 ACADEMIC YEAR
ACADEMIC CALENDAR

**** Schedule for MED203 committee was revised and re-organized due to COVID-19 pandemic. Laboratory Practices listed below will be held at 2nd Semester. ****

Laboratory Lessons:

1. Lab: Degenerative & Demyelinating CNS Diseases (2 hours Dr. Yurdakan & Dr. Boduroğlu)
2. Lab: Tumors of CNS (2 hours, Dr. Yurdakan & Dr. Boduroğlu)
3. Hearing Test (2 hours, MEDICANA Hospital)
4. Vestibular Test and Clinical Applications (1 hour, MEDICANA Hospital)

COMMITTEE NAME	STARTING DATE	COMPLETION DATE
MED 201	05.10.2020	13.11.2020
MED 202	22.02.2021	30.04.2021
MED 203	16.11.2020	22.01.2021
MED 204	03.05.2021	11.06.2021

	MED 201	MED 202	MED 203	MED 204
ANATOMY PRACTICAL EXAM DATE			21.01.2021	
HISTOLOGY AND EMBRYOLOGY PRACTICAL EXAM DATE			21.01.2021	
PHYSIOLOGY PRACTICAL EXAM			21.01.2021	
COMMITTEE EXAM DATE			22.01.2021	

MED 203 COMMITTEE

PHASE II COORDINATOR	Prof. Dr. Ali ACAR			
PHASE II VICE COORDINATOR	Instructor Dr. Badegül SARIKAYA			
CHAIRMAN OF THE MED 203 COMMITTEE	Assoc. Prof. Dr. Hale ÖKTEM			
MED 203 COMMITTEE DATE RANGE	16.11.2020 – 22.01.2021			
ACADEMIC STAFF AT THE MED 203 COMMITTEE	Prof. Dr. Nedret KILIÇ- Medical Biochemistry Prof. Dr. Necla TÜLEK- Medical Microbiology Prof. Dr. Şefik HOŞAL-Ear-Nose-Throat Prof. Dr. Ali ACAR – Medical Microbiology Prof. Dr. Müge TECDER- Medical Pharmacology Prof. Dr. Gamze YURDAKAN- Medical Pathology Assoc. Prof. Dr. Hale ÖKTEM – Anatomy Assoc. Prof. Dr. Filiz KORKMAZ ÖZKAN - Biophysics Ass. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT- Histology and Embryology Ass. Prof. Dr Esin BODUROĞLU- Medical Pathology Ass. Prof. Dr. Ali Doğan DURSUN – Physiology Ass. Prof. Hakan YAKUPOĞLU-Neurosurgery Ass. Prof. Dr. Sevil KÖSE – Medical Biology Asst. Prof. Dr. Fatma YERLİKAYA ÖZKURT - Biostatistics Instructor Dr. Badegül SARIKAYA - Physiology			
ACADEMIC STAFF	TEORETHICAL LECTURE TOME	PRACTICAL LECTURE TIME	INTERACTIVE EDUCATION TIME	TOTAL TIME
Anatomy	36	12	4 (Discussion and case discussion)	65
Histology and Embryology	10	7	0	18
Medical Microbiology	23	0	4	27
Medical Pharmacology	20	0	0	20
Medical Biochemistry	3	0	0	3
Medical Pathology	18	4	0	22
Physiology	28	10	0	38
Medical Biology	1	0	0	1
Biostatistics	2	0	0	2
Biophysics	8	0	0	8
Neurosurgery	4	0	0	4
Introduction to Committee	1	0	0	1
TOTAL	154	33	8	195

Office Hour	-
--------------------	---

CONTENT OF THE MED 203 COMMITTEE
<p>Central nervous system; spinal cord: general topography and internal structure; the central nervous system: afferent pathways, the central nervous system: efferent pathways; medulla oblongata; pons; mesencephalon; cerebellum; cranial nerves; the sympathetic and parasympathetic nervous system; thalamus; hypothalamus; hypophysis; autonomic nervous system; cranial nerves; vessels of central nervous system; limbic system; ventricles and cerebrospinal fluid; orbit and its contents; eyeball; ear; vestibular system; auditory pathways; visual pathways; clinical anatomy; sectional anatomy of central nervous system; injuries of central nervous system; fine structure and development of central nervous system organs, histology of central nervous system; pathology of central nervous system organs; drugs used in central nervous system pathologies; infectious diseases of central nervous system; physiology of central nervous system; diagnosis and surgical approaches to intracranial hemorrhages; vestibular tests; hearing tests; tumors of central nervous system; biochemistry of hormonal systems</p>
MED 203 COMMITTEE AIM
<p>To understand the structural and biochemical properties of the nervous system and to interpret the functions of the nervous system with the perspective of basic principles of physics; interpret the cells and structures of the nervous system at the microscopic level; to evaluate the physiology of the nervous system and related systems; to be able to distinguish the symptoms, diagnosis and treatment of neurological diseases, to evaluate the effects and use of neurological system targeted drugs with a pharmacology perspective.</p>
MED 203 COMMITTEE LEARNING OBJECTIVES
<p>The students who succeeded in this course;</p> <ol style="list-style-type: none"> 1. Knows the anatomy of structures related to central nervous system and recognizes them on models. 2. Knows the anatomy of structures related to sensory organs and recognizes them on models. 3. Knows the functional anatomy of the anatomical structures included to central nervous system 4. Knows the functional anatomy of the anatomical structures included to sensory organs 5. Knows the afferent and efferent pathways and clinical conditions related with their injuries 6. Knows the clinical anatomy of cranial nerves 7. Knows the visual pathways, auditory pathways and vestibular system 8. Explains the central structures related to the nervous system and the functions of these structures, interprets the functional losses 9. Defines the sensory receptors and explains their properties 10. Defines somatic senses, knows the differences, explains the ways of conduction to the central nervous system 11. Explains how motor and sensory functions of the nervous system are performed at the level of the medulla spinalis, brain stem and cortex 12. Explains the interaction between the structures that take part in the formation of voluntary movement and the interaction 13. Explains the centers and cycles that manage vegetative functions. 14. Explains function of the limbic system, 15. Defines hypothalamus pituitary relationship, explains adenohypophysis and neurohypophysis differences

16. Describes the high functions of the nervous system such as conditional reflex, learning and memory by physiological mechanisms
17. Explains the centers and processes that manage cognitive and cognitive functions.
18. Explains the formation, related structures and functions of special senses (sight, hearing, balance, smell, taste), superficial senses and deep senses,
19. Explains the physiological mechanisms of vision and hearing
20. Explains the structures, CSF construction, components and functions that protect the Central Nervous System
21. Explains the structure and functions of the autonomic nervous system.
22. Interpret the physiopathology of neurodegenerative diseases.
23. Explains the high functions of the brain and the neuronal basis of the resulting defects,
24. Defines electroencephalography method, calculates frequency and amplitude.
25. Measures EEG, interprets the results
26. Defines the reflex arc of the deep tendon reflexes, performs a reflex examination and interprets the results
27. Performs a hearing test, revealing the difference between conductive and sensory-neural hearing loss.
28. Defines and measures the field of vision
29. Defines and measures visual acuity
30. Defines and measures the light and accommodation reflex
31. Explains the physiology and interactions between central nervous system, peripheral nervous system and related sensory organs. Students will be able to perform EEG, stretch reflexes, hearing, vision and reflex tests in order to gain the ability to make attempts for patients.
32. Knows the biochemistry of hormonal systems stimulated by brain regions.
33. Recognizes the symptoms and pathological findings of neurological diseases.
34. Knows the analgesic and antipyretic drugs acting on nervous system, related agonists and antagonists, sedative and hypnotic drugs and neuroleptics in detail.
35. Evaluates multiple sclerosis, stroke and Alzheimer's diseases with a neurological approach.
36. Knows the fine structure of central nervous system organs and structural components of it and the fine structure of eye and ear. Knows the embryological development of these organs.
37. Describes the microscopic characteristics of hypophysis and epiphysis. Knows the embryological development of these organs.
38. Describes the microorganisms in details which effect the central nervous system and knows their pathological findings
39. Differentiate meningitis from encephalitis
40. Describe the pathophysiology of subacute sclerosing panencephalitis SSPE and progressive multifocal leukoencephalopathy
41. Define prion disease
42. Explain the features of neuronal injury
43. Describe the pathogenesis of the cerebrovascular diseases
44. Explain morphologic changes & their consequences in CNS trauma
45. Describe congenital malformations of different types; neural tube defects, forebrain malformations, posterior fossa abnormalities
46. Explains perinatal brain injury
47. Describe diseases of myelin
48. Explain neurodegenerative diseases generally
49. Describe pathogenesis & morphologic changes in Alzheimer's disease
50. Describe pathogenesis & morphologic changes in Frontotemporal Lobar Degeneration
51. Explain pathogenesis & morphologic changes in Parkinson Disease
52. Describe pathogenesis & morphologic changes Huntington Disease
53. Explain pathogenesis & morphologic changes in Spinocerebellar Ataxias
54. Describe pathogenesis & morphologic changes Amyotrophic Lateral Sclerosis
55. Describe & discuss CNS benign & malignant neoplasms

56. Explain pineal gland & pituitary neoplasms

57. Describe eye & ear pathologies

RECOMMENDED BOOKS

1. Basic & Clinical Pharmacology (14th Edition); Bertram G. Katzung, Anthony J. Trevor; McGraw-Hill, 2018.

2. Braddom's Physical Medicine and Rehabilitation (5th Edition); David X. Cifu MD; Elsevier, Philadelphia, 2016.

3. Gray's Anatomy for Students (3rd Edition); Richard L. Drake, A. Wayne Vogl, Adam W. M. Mitchell; Churchill Livingstone Elsevier, Philadelphia, 2015.

4. Guyton and Hall Textbook of Medical Physiology (13th Edition); John E. Hall; Elsevier, Philadelphia, 2016.

5. Histology and Cell Biology: An Introduction to Pathology (4th Edition); Abraham L. Kierszenbaum, Laura L. Tres; Elsevier Saunders, Philadelphia, 2015.

6. Medical Microbiology (7th Edition); Patrick Murray, Ken Rosenthal, Michael Pfaller; Elsevier Saunders, Philadelphia, 2013.

7. Molecular and Cellular Biophysics; Meyer B. Jackson; Cambridge University Press, Cambridge, 2006.

8. Rheumatology Textbook (5th Edition); Marc Hochberg, Alan J. Silman, Joseph Smolen, Michael Weinblatt, Michael Weisman; Mosby Elsevier, Philadelphia, 2011.

9. Robbins Basic Pathology (10th Edition); Vinay Kumar, Abul K. Abbas, Jon C. Aster; Elsevier Saunders, Philadelphia, 2018.

10. The Developing Human: Clinically Oriented Embryology (10th Edition); Keith L. Moore, T. V. N. Persaud, Mark G. Torchia; Elsevier, Philadelphia, 2015.

11. Textbook of Biochemistry with Clinical Correlations (7th Edition); Thomas M. Devlin; John Wiley & Sons, 2010

12. Cell and molecular biology (2th edition); Nalini Chandar, PhD, Susan Viselli, PhD, Lipincot Williams & Wilkins, 2019.

13. Molecular cell biology (8th edition); Harvey Lodish, W.H. Freeman & Co Ltd, 2016.

14. Molecular biology of the cell (6th edition); Bruce Alberts, W. W. Norton & Company, 2015.

15. Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e, 2019, McGraw-Hill Education

16. Medical Microbiology 8th Edition . Murray . Rosenthal, . Pfaller, , 2016

17. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th Edition, Bennett, JE, Dolin R, Blaser MJ. Elsevier, 2019

18. Basic Immunology: Functions and Disorders of the Immune System, 5e, Abbas, Lichmann, Pillai, Elsevier, 2016

19. Gray's Anatomy. Editor: Susan Standring, 41st Edition, 2015, Elsevier

20. Moore Clinically Oriented Anatomy. Authors: Keith L. Moore, Anne M. R. Agur, Arthur F. Dalley. 7th Edition, 2013, Lippincott Williams Wilkins

21. Sobotta Atlas of Human Anatomy. English: Musculoskeletal system, internal organs, head, neck, neuroanatomy by Friedrich Paulsen (Author), Jens Waschke (Author), Sabine Hombach-Klonisch (Translator), Thomas Klonisch (Translator). 15th Edition, 2013, Urban and Fischer, Elsevier

22. Atlas of Human Anatomy (Netter Basic Science). Author: Frank H. Netter. 7th Edition, 2019, Elsevier

23. Medical Physiology 3rd Edition by Boron MD PhD, Walter F, Boulpaep MD, Emile L. (2017)

24. Physiology 6th Edition by Costanzo PhD, Linda S. (2017)

25. Principles of Neural Science, Fifth Edition (Principles of Neural Science (Kandel)) 5th Edition by Eric R. Kandel, James H. Schwartz, Thomas M. Jessell, Steven A. Siegelbaum, A. J. Hudspeth. (2013)

MED 203 COMMITTEE EXAM WEEK

DATE	EXAM NAME		EXAM HOURS	
21.01.2021	Anatomy Practical Examination		09:30-10:20	
21.01.2021	Histology and Embryology Practical Examination		11:30-12:20	
21.01.2021	Physiology Practical Examination		13:30-16:20	
22.01.2021	MED 203 Committee Exam		10:30-13:20	
Teaching Methods and Techniques	<input checked="" type="checkbox"/> Lecture	<input checked="" type="checkbox"/> Case basing learning	<input checked="" type="checkbox"/> Case discussion	<input checked="" type="checkbox"/> Student presentation
	<input checked="" type="checkbox"/> Discussion	<input checked="" type="checkbox"/> Problem based learning	<input type="checkbox"/> Project	<input type="checkbox"/> Homework
	<input type="checkbox"/> Role playing	<input checked="" type="checkbox"/> Experiment	<input type="checkbox"/> Report prepearing	<input checked="" type="checkbox"/> Free Study
	<input checked="" type="checkbox"/> Laboratory practice			
Evaluation Method	Theoretical Exam (70%), Practical exam (30%= 12.5% Anatomy+ 12.5% Physiology+ 5%Histology and Embryology)			
Language of lectures, practicals and all other applications	English			