

International School of Medicine / Medicine (English)

2023 - 2024 Academic Year

ANATOMY

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
ANATOMY	ISM2015431	Yearly	103+44	0	11
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Committee Course				
Course Coordinator	Prof.Dr. Alper ATASEVER				
Name of Lecturer(s)	Prof.Dr. Alper ATASEVER				
Assistant(s)					
Aim	To give information about the anatomy of nervous system , cardiovascular system , gastrointestinal system and endocrine and urogenital systems, to make practical applications and to have information about the basic radiological imaging methods and principles associated with this systems.				
Course Content	This course contains; Medulla spinalis, Ascending pathways, descending pathways, Medulla spinalis syndromes and cuts, Autonomic nervous system, CNS arteries, Brainstem, Cranial nerves I (5, 7), Cranial nerves II (8-12), Cerebellum and its cellular architecture, Basal nuclei, white matter of the brain, Diencephalon and its connection with the pituitary gland, Limbic system and rhinencephalon and N. olfactorius-Hippocampus formation, memory and learning, Lobes of the brain, Cerebral cortex (sleep, intelligence, cognition), Brain Ventricles, CSF, CNS membranes, Dural sinuses, Brain venous circulation and circumventricular organs, Cerebrovascular diseases, Eyes and (2,3,4,6 cranial nerves), Visual pathways and lesions, Ear, Ear and clinic, Radiological Anatomy, Cardiovascular system introduction, Pericardium and heart, Clinic, Fetal circulation, Arcus aortae, Aorta thoracica, Head and neck arteries and veins & V. cava superior, Mediastinum, Azygos system & V. cava inferior, Introduction to the respiratory system, Nose and Paranasal sinuses, Larynx, trachea, Lungs, Lymphatic system, glandula mammaria, Oral cavity anatomy, tongue, salivary glands, Pharynx and oesophagus, stomach, Peritoneum and omentums, peritoneal compartments, bursa omentalis, peritoneal dead ends, peritonitis, Small intestine and Large intestine, Rectum, Liver, its cellular architecture and diseases, Gallbladder and biliary tract, pancreas, spleen, portal system, porto-caval anastomoses, Abdominal arteries and veins, Anterior abdominal wall, plicae and fossae in anterior abdominal wall, inguinal canal, femoral canal and herniations, Endocrine System Anatomy, Kidney anatomy, Ureter, Bladder and urethra anatomy, Anatomy of the male genital tract, Anatomy of the female genital tract, Pelvis and perineum, Continence, Incontinence, Organ Prolapses, Pelvic arteries.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Knows the central structures of the Information-Nervous system and the functions of these structures, interprets the functional losses.			10, 17, 4, 9	A	
Knows the peripheral structures related to the nervous system and the functions of these structures, interprets the loss of function.			13, 16, 17, 9	A	
Knows the cranial nerves, interprets the functions and knows the rules to be observed in physical examinations.			16, 17, 9	A	
Explain the structure and functions of the autonomic nervous system.			16, 17, 9	A	
Explains the development of the nervous system, defines developmental diseases.			16, 17, 9	D	
Knows the vascular structures of the brain and interprets the mechanism of cerebrovascular diseases.			16, 17, 9	A	
Knows the general structure of nerve cells and how signal transmission occurs, explains the neural damage mechanisms.			16, 17, 9	A	
Interprets the physiopathology of neurodegenerative diseases.			16, 17, 9	A	
List the mechanisms of emergence of neuropsychological diseases.			16, 17, 9	A	
List the centers and processes that govern cognitive and cognitive functions.			16, 17, 9	A	
It describes the centers and cycles that govern vegetative functions.			10, 17, 9	A	
Has an idea about the structure, anatomy, histology and working principles of the basic sense organs.			16, 17, 9	A	
Interpret the techniques used in nervous system research.			16, 17, 9	A	
Interprets diagnostic technologies such as EEG, CT, MR and working principles of new nervous system warning systems.			16, 17, 9	A	
Explain hearing and vision mechanisms.			16, 17, 9	A	
List the diagnostic criteria of nervous diseases.			16, 17, 9	A	
Explain the basic principles to be followed in the follow-up of nervous system diseases.			16, 17, 9	A	
Ability to measure EEG.			16, 17, 9	A	
Hearing and vision test can be done.			10, 17, 9	A	
He/she can do reflex examination.			16, 17, 9	A	
Distinguish the preparation images of the nervous system and basic sense organs.			16, 17, 9	A	
Shows nervous system formations on models and cadavers.			16, 17, 9	A	
Comprehends the importance of using Attitude-Diagnostic methods in steps from simple to complex.			16, 17, 9	A	
Understands the importance of early diagnosis of nervous system diseases.			16, 17, 9	A	
Calculates the sensitivity, selectivity and predictive values of diagnostic tests.			16, 17, 9	A	
Be aware of the necessary responsibility and respect while working with cadaveric samples.					
Teaching Methods	10: Discussion Method, 13: Case Study Method, 16: Question - Answer Technique, 17: Experimental Technique, 4: Inquiry-Based Learning, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam, D: Oral Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Medulla spinalis	Snell, Clinical Neuroanatomy P: 133-162			
2	Ascending pathways	Snell, Clinical Neuroanatomy P: 143-153			
3	descending pathways	Snell, Clinical Neuroanatomy P: 153-160			
4	Medulla spinalis syndromes and cuts	Snell, Clinical Neuroanatomy P: 165-185			
5	Autonomic nervous system	Snell, Clinical Neuroanatomy P: 392-417			
6	CNS arteries	Snell, Clinical Neuroanatomy P: 475-481			

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Sequence	Topics	Preliminary Preparation
7	Brainstem	Snell, Clinical Neuroanatomy P: 196-210
8	Cranial nerves I (5, 7)	Snell, Clinical Neuroanatomy P: 341, 346
9	Cranial nerves II (8-12)	Snell, Clinical Neuroanatomy P: 348- 356
10	Cerebellum and its cellular architecture	Snell, Clinical Neuroanatomy P: 231-242
11	Basal nuclei, white matter of the brain	Snell, Clinical Neuroanatomy P: 317-327
12	Diencephalon and its connection with the pituitary gland	Snell, Clinical Neuroanatomy P:252-256, 372-375, 383-389
13	Limbic system and rhinencephalon and N. olfactoriusHippocampus formation, memory and learning	Snell, Clinical Neuroanatomy P: 307- 312
14	Lobes of the brain, Cerebral cortex (sleep, intelligence, cognition)	Snell, Clinical Neuroanatomy P : 285-295
15	Brain Ventricles, CSF, CNS membranes, Dural sinuses	Snell, Clinical Neuroanatomy P: 446-466
16	Brain venous circulation and circumventricular organs, Cerebrovascular diseases	Snell, Clinical Neuroanatomy S: 475-481
17	Eyes and (2,3,4,6 cranial nerves)	Snell 9th, P: 549-556
18	Visual pathways and lesions	Snell 7th P: 358-361
19	Ear	Snell 9th, P: 562-569
20	Ear and clinic	Snell 9th, P: 568
21	Radiological Anatomy	Snell, Clinical Neuroanatomy P: 102-112
22	Cardiovascular system introduction	Snell 9th, P: 79
23	Pericardium and heart, Clinic, Fetal circulation	Snell 9th, P: 79-86
24	Arcus aortae, Aorta thoracica, Head and neck arteries and veins & V. cava superior	Snell 9th, P:86-93
25	Mediastinum, Azygos system & V. cava inferior	Snell 9th, P: 93-98
26	Introduction to the respiratory system, Nose and Paranasal sinuses	Moore, Clinically Oriented Anatomy P: 955-966
27	Larynx, trachea	Snell 9th, P: 63-70
28	Lungs	Snell 9th, P: 58-62
29	Lymphatic system, glandula mammaria	Moore, Clinically Oriented Anatomy P: 98-99
30	Oral cavity anatomy, tongue, salivary glands	Moore, Clinically Oriented Anatomy P: 928-951
31	Pharynx and oesophagus, stomach	Moore, Clinically Oriented Anatomy P:229-230
32	Peritoneum and omentums, peritoneal compartments, bursa omentalis, peritoneal dead ends, peritonitis	Snell 9th, P: 160- 167
33	Small intestine and Large intestine	Snell 9th, P: 158-160
34	Rectum	Moore, Clinically Oriented Anatomy P: 368-376
35	Liver, its cellular architecture and diseases	Snell 9th, P: 196-199
36	Gallbladder and biliary tract, pancreas, spleen, portal system, porto-caval anastomoses	Snell 9th, P: 199- 206
37	Abdominal arteries and veins	Snell 9th, P: 184-196
38	Anterior abdominal wall, plicas and fossae in anterior abdominal wall, inguinal canal, femoral canal and herniations	Snell 9th, P: 113-150
39	Endocrine System Anatomy	Moore, Clinically Oriented Anatomy P: 290-300
40	Kidney anatomy	Snell 9th, P: 206-209
41	Ureter, Bladder and urethra anatomy	Snell 9th, P: 209-211
42	Anatomy of the male genital tract	Snell 9th, P: 269-279
43	Anatomy of the female genital tract	Snell 9th, P: 279-295
44	Pelvis and perineum, Continence, Incontinence, Organ Prolapses	Snell 9th, P: 241-261
45	Pelvic arteries	Snell 9th, P: 256-258
Evaluation Methods		Weight(%)
Midterm Exam		40
General Exam		60

Resources
<p>Moore, Keith L., Arthur F. Dalley, and Anne MR Agur. Clinically oriented anatomy. Lippincott Williams and Wilkins, 2013. Putz R, Pabst R. Sobotta atlas of human anatomy Volume 2 12th English Ed. Munich, Urban & Schwarzenberg 1994 Netter FH. Atlas of human anatomy (second edition). USA, Novartis, 1997.</p> <p>Gray's Anatomy, Susan Standring et. get.</p> <p>Moore KL, Persaud TVN. The Developing Human (Clinically Oriented Embryology). Fifth ed. Philadelphia, WB Saunders Company, 1993 Arıncı K, Elhan A. Anatomy I, II. Güneş bookstore, Ankara, 2003.</p> <p>Moore K, AF. Dalley: Clinically Oriented anatomy. Fourth ed. Lippincot Williams & Wilkins Company, Philadelphia, 1999</p> <p>Taner D. Functional Neuroanatomy</p> <p>Lecture notes will be given to students.</p>