



Jordan University of Science and Technology
Faculty of Medicine
Doctor Of Medicine (Md) Department

MED282 Neuroscience System - JNQF Level: 7

Second Semester 2022-2023

Course Catalog

7 Credit Hours. This course integrates all basic science disciplines in one system-based course to discuss neuroscience-related topics. Each of the basic science departments is incorporated into an integrated body of knowledge covering neuroanatomy, neurophysiology, neurological correlation, neuropharmacology, neuropathology, microbiology, and human behavior. Also, Clinical implications for these information will be addressed by specialists in the clinical departments including Neurology, neurosurgery, radiology, and Orthopedic. These subjects will be addressed by Anatomists, Physiologists, Pathologists, Pharmacologists, Microbiologists, and Clinicians. Goals of this course will be achieved via lectures, relevant laboratory sessions, seminars or small group discussions, and self-directed learning methods. More specifically, central nervous system (CNS)-related topics will be covered at first to provide basic knowledge and understanding of the structure, function of the nervous system, biochemical basis of human behavior, as well as the pathological basis of neurological and mental disorders in brain and spinal cord. Fundamental principles of basic medical sciences and human behavior will be applied to pathological situations to distinguish the clinical basis for central nervous system disorders. Afterward, all parts of the peripheral nervous system is tackled starting from the origin in the central nervous system down to the target organs. This will include cranial nerves and spinal plexuses with their branches. During the course and whenever relevant the students are exposed to clinical problems to emphasize the explanations of symptoms, signs, investigations and forms of treatments. Practical sessions are planned to be stations around tables to give students the opportunity to expose their knowledge for discussion and confirm concepts learned in lectures. Small group discussions of clinical cases are planned at the end of the course were students are divided into small groups and with the help of an instructor they analyze and discuss the problem.

Text Book

Title	Clinical Anatomy for Medical Students.
Author(s)	Snell
Edition	8th Edition
Short Name	Anatomy
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
------------	-----------	-----------	---------	-------------------

Pharmacology	The pharmacological basis of therapeutics	Goodman and Gilman's	15th Edition	
Pathology	Basic Pathology.	Kumar, Cotran, and Robbins	9th Edition	
Physiology	Textbook of Medical physiology	Guyton and Hall	22nd Edition	
Microbiology	Medical microbiology: an introduction to infectious diseases.	Sherries	7th Edition	

Instructor	
Name	Dr. Ahmad Altarifi
Office Location	M6L0
Office Hours	
Email	aaaltarifi@just.edu.jo

Class Schedule & Room
<p>Section 1: Lecture Time: Sun, Tue : 09:30 - 10:30 Room: NURSING HALL</p> <p>Section 2: Lecture Time: Mon, Wed : 12:30 - 13:30 Room: NURSING HALL</p> <p>Section 3: Lecture Time: Sun, Tue : 12:30 - 13:30 Room: NURSING HALL</p> <p>Section 4: Lecture Time: Mon, Wed : 09:30 - 10:30 Room: NURSING HALL</p>

Tentative List of Topics Covered		
Weeks	Topic	References
Weeks 1, 2	Anatomy of the CNS	
Weeks 3, 4	Blood supply and related diseases to CNS	
Weeks 5, 6	Motor function and coordination and related diseases	
Weeks 7, 8	Pharmacology of CNS diseases	
Weeks 9, 10	Limbic system and emotions	
Weeks 11, 12, 13, 14	Peripheral nervous system and autonomic nervous system	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Describe the anatomical and physiological basis for higher-order cortical functions in the central nervous system [1PLO1] [1L7K1]	20%	
Describe the principles that guide our understanding of human behavior and the biochemical basis of various behavioral disorders [1PLO1] [1L7S1]	10%	
Able to explain symptoms, signs, investigations, and forms of treatments of nervous system?s anomalies [1PLO2, 1PLO4, 1PLO10, 1PLO14] [1L7S1, 1L7S2, 1L7C4]	30%	
Describe the gross features of the human central nervous system (brain and spinal cord), including brain coverings, cerebrospinal fluid (CSF), and blood supply of the central nervous system [1PLO1] [1L7K1]	15%	
Analyze the structures conveying information to and from the central nervous system, and define the structural basis, physiological, and pharmacological properties transmit sensory and motor information in the CNS [1PLO1, 1PLO3, 1PLO4] [1L7K1, 1L7S2]	25%	

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
53.33	7.5	8.33	15.83						7.5				7.5

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7C4
47.5	20	22.5	10

Date Printed: 2024-01-28