Course Specifications

General Information

Course name	Neurology
Course number	MDCN5423
Faculty	
Department	
Course type	Major Needs
Course level	5
Credit hours (theoretical)	4
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Understanding Neuroanatomy: Medical students should develop a solid understanding of the structure and function of the nervous system, including the brain, spinal cord, and peripheral nerves. This includes learning about different regions, pathways, and connections within the nervous system.

2 - Recognizing Neurological Disorders: Students should become familiar with the common neurological disorders encountered in clinical practice, such as stroke, epilepsy, neurodegenerative diseases (e.g., Alzheimers disease, Parkinsons disease), multiple sclerosis, and peripheral neuropathies

3 - Performing a Neurological Examination: Medical students should learn how to conduct a comprehensive neurological examination, which includes assessing cranial nerves, motor and sensory function, coordination, reflexes, and mental status

4 - Interpreting Diagnostic Tests: Students should gain knowledge and skills in interpreting diagnostic tests commonly used in neurology, such as brain imaging (MRI, CT scans), electroencephalography (EEG), nerve conduction studies, and lumbar puncture

5 - Developing Differential Diagnoses: Students should learn how to generate a differential diagnosis for patients presenting with neurological symptoms, considering both common and rare conditions.

6 - Formulating Management Plans: Medical students should develop the ability to formulate management plans for patients with neurological disorders.

Intended Learning Outcomes

Knowledge and Understanding	* Understanding the structure and function of the nervous system, including neuroanatomy and neurophysiology. * Knowledge of common neurological disorders, their etiology, pathophysiology, and clinical presentations. * Understanding the principles of neuroimaging techniques and their interpretation in diagnosing neurological conditions. * Familiarity with the basic principles of neuropharmacology and the use of medications in neurological treatment. * Knowledge of the different diagnostic tests used in neurology, such as electroencephalography (EEG), electromyography (EMG), and lumbar puncture, and their indications and interpretation. * Understanding the principles of neurological examination, including assessment of cranial nerves, motor and sensory functions, and reflexes * Knowledge of the common neurological emergencies and appropriate management strategies. * Knowledge of the major neurodegenerative diseases, such as Alzheimers disease and Parkinsons disease, and their management.
Intellectual Skills	* Clinical Reasoning: Develop the ability to critically analyze patient information, including medical history, examination findings, and diagnostic tests, to arrive at accurate diagnoses and formulate appropriate management plans * Problem Solving: Apply knowledge of neurology principles and concepts to identify and solve clinical problems related to neurological disorders. * Data Interpretation: Analyze and interpret clinical and investigative data, such as neuroimaging studies, EEG recordings, or laboratory results, to understand the underlying pathophysiology and make informed clinical decisions. * Decision Making: Make evidence-based decisions in the management of neurological conditions, weighing the risks and benefits of different treatment options and considering individual patient factors. * Clinical Judgment: Develop the ability to make sound judgments and decisions based on clinical experience and knowledge of neurology, considering patient preferences, ethical considerations, and the overall context of care.
Professional Skills	* Clinical Assessment: Demonstrate proficiency in conducting comprehensive neurological assessments, including history-taking, physical examination, and interpretation of relevant findings * Diagnostic Skills: Develop the ability to accurately diagnose and classify various neurological disorders based on clinical presentations, examination findings, and diagnostic test results. * Treatment Planning: Formulate evidence-based management plans for patients with neurological conditions, considering the available treatment options, potential risks and benefits, and individual patient factors.

Course Contents

1 - Introduction to Neurology
2 - Neuroanatomy
3 - Neurological Examination
4 - Common Neurological Disorders
5 - Neurological Diagnostics
6 - Neurological Emergencies
7 - Neuropharmacology

Teaching and Learning Methods

1 - Lectures
2 - Small Group Discussions
3 - Case-Based Learning
4 - Bedside Teaching
5 - Clinical Skills Simulation

Students Assessment

Assessment Method	TIME	MARKS
Final examination	1 hr	100