Course Description Template

University Name: Warith Al-Anbiya.
Faculty/Institute: Collage of medicine
Scientific Department: medical education.
Academic or Professional Program Name: unit 9/ 3rd stage
Final Certificate Name: .....
Academic System: Integration System
Description Preparation Date: 27/8/2025
File Completion Date: 27/8/2025

Signature:

Head of Branch: Dr. Fatima M. Swadi

Date: 27/8/2025

Signature:

Vice Dean for Scientific Affairs: Dr, Laith M. Abbas

Date: 27/8/2025

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department: profmm Dr. Ali Al Mousawi

Date: 27.8.2025

Signature:

Dean's approval

Neurology Code : medu303

1. Anatomy

	ANATOMY	HISTOLOGY	EMBRYOLOGY	hr
WK1				
	Introduction and organization of nervous system			4
	cranial meninges& middle meningeal artery			
lab	**Anatomy (Cranial cavity & Foramina)**			2
WK2				
	Ventricular System	Histology of nervous tissue& BBB& blood – CSF barrier		4
lab	**Anatomy (Ventricular System)**			2
WK3				
	cerebral cortex	Histology of cerebral cortex		6
	blood supply of the brain			
lab	**Anatomy (Gross anatomy of cerebral cortex & Blood supply of brain**			2
WK4				
	Sub-cortical white mater & Internal Capsule – Structure, Orientation and Nerve Tracts		Embryology of nervous system& neural tube defect	2+2
	Gross anatomy of the spinal cord& its blood supply			2
lab	**Anatomy (Subcortical white matter & spinal cord)**			2
WK5/ No anatomical objectives				
WK6				
	anatomy of the cerebellum	Histology of the cerebellum		4+2
	anatomy of the basal nuclei			

lab	Anatomy (cerebellum& basal nuclei))			2
WK7				
	Gross & functional anatomy of limbic system			2
	thalamus & hypothalamus			2
lab	Anatomy(limbic system& diencephalon)			2
WK8/ No anatomical objectives				
WK9/ No anatomical objectives				
WK10				
	brain stem			2
	Cranial Nerve			2
lab	Anatomy (Internal & external Structures of brainstem & cranial nerves			2
WK11				
	orbit& eyeball			2
lab	Anatomy (eyeball &nerves supply eye			2
WK12				
	Anatomy of ear			2
نظري	30	6	2	38
عملي	16			16

2. Physiology

Week	Objectives/theory	hours	Objective/ practical	hours
1	-1 Motor pathway -2 Overall motor control by the cerebral cortex, brainstem, cerebellum -3 Motor Cerebral area -4 Pyramidal Correlate the anatomical and physiological basis of lesions of -5 sensory and motor control systems.	3		
2	-1 CSF -2 Blood brain barrier mechanisms	1		
3	• Mechanisms of sleep and wakefulness • Normal EEG	2	EEG	2
4	Motor pathway Extrapyramidal speech	1		
5	• Structure of the brainstem and cranial nerves • Functions of the reticular activating system and thalamus	2		

	• Mechanisms of sleep and wakefulness			
6	• Basal ganglia • Regulation of tone, posture and movements • The involuntary movements (tremors)	3		
7	Learning Memory Higher functions of the brain: Orientation, Learning and Memory	2		
8	.Frontal lobe, Para frontal Functions of the prefrontal lobe	1		
9	Physiological basis of motivation and emotional behavior Structure and functions of hypothalamus and limbic system	2		
10	• Sensory, motor and association functions of the cerebral cortex • including higher functions e.g. Speech • Correlate the pathophysiological changes to clinical manifestations of lesions of the internal capsule and brain stem	2		
TOTAL		19		2

3. Pathology

weeks	Objectives/theory	Number of hours	Objectives/practical	Number of hours
Week 1	1. Reactions of neurons, Astrocytes and other glial cells to injury. 2. Types of trauma to CNS a. Skull fracture b. Parenchymal injury c. Traumatic vascular injury i. Epidural hematoma ii. Subdural hematoma Sequel of brain trauma & Spinal cord trauma.	**1**		
Week 2	1- Infectious injury to the CNS 2- Acute meningitis a. Acute pyogenic (bacterial) meningitis b. Acute aseptic (viral) meningitis 3- Acute focal suppurative infections	**1**		

	a. Brain abscess (definition, predisposing factors, morphology) 4- Chronic bacterial meningoencephalitis a. Tuberculosis 5- Viral meningoencephalitis Fungal meningoencephalitis and other CNS infections			
Week 3	• Definition, epidemiology, pathological types of cerebrovascular disease • Hypotension, Hypoperfusion and low flow states. • Infarction from local blood supply obstruction. • Hypertensive cerebrovascular accidents. o Lacunar infarcts o Slit hemorrhages o Hypertensive encephalopathy • Intracranial hemorrhage o Intracerebral hemorrhage o Subarachnoid hemorrhage Vascular malformations	**2**	**Gross and morphological changes in different forms of CNS vascular lesions**	**2 hours**
Week 4	1- Definition of demyelinating diseases 2- Multiple sclerosis (definition, pathogenesis, morphological features) 3- Acute disseminated encephalomyelitis Other diseases with demyelination n	**1**		
Week 5	**No pathology lectures**			
Week 6	1- . Degenerative diseases of the basal ganglia and brain stem. 2- Parkinsonism and Parkinson's disease. Huntington's discasc.	**1**		
Week 7	• Degenerative diseases affecting cerebral cortex. • Alzheimer disease (definition,morphology, pathogenesis) Other types of degenerative diseases of the cerebral cortex	**1**		
Week 8	**No pathology lectures**			
Week 9	**No pathology lectures**			
Week 10	• Epidemiology and pathological types of brain tumours • Gliomas (Astrocytoma, Oligodendroglioma, Ependymoma) • Neuronal tumours.	**2**	**Gross and morphological changes in CNS neoplasms**	**2 hours**

	• Poorly differentiated neoplasms (medulloblastoma) • Other parenchymal tumours ○ Primary CNS lymphoma ○ Germ cell tumours • Meningioma • Metastatic tumours • Para neoplastic syndromes • Peripheral nervous system tumours Schwanoma and Neurofibroma			
Week 11	**No pathology lectures**			
Week 12	**No pathology lectures**			
Total hours		**8**		**4**

4. Microbiology

Unit	Week	Subject	Topics	Duration
9	2	Microbiology	Infections of the CNS	1 hr.
		Microbiology	Infection of ear	1 hr.
	4	Immunology	Role of immune system multiple sclerosis and other autoimmune disease of the nervous system.	1 hr.

5. Pharmacology

Weeks	Objectives	Theory/hr
1	• **Pharmacology of disease modifying agents in MS** • **Pharmacotherapy of complications of MS**	1
2	• **Pharmacology of antibiotics used in the treatment of bacterial meningitis: choice of the drug, route of administration, antibiotic**	1

	combination, development of resistance to antibiotics • Treatment of fungal meningitis(Cryptococcal meningitis)	
3	• Pharmacology of antiepileptic agents: therapeutic strategies, drug selection, mechanism of action, pharmacokinetics, side effects, drug interaction.	2
4	• Role of thrombolytic agents, antiplatelets and anticoagulants in the treatment CVA • Role of drugs in the management of risk factors of CVA	1
5		
6	• Pharmacology of drugs used in Parkinson's disease : therapeutic strategies, drug selection, mechanism of action, pharmacokinetics, side effects, drug interaction.	1
7	• Pharmacology of anti-Alzheimer drugs: mechanism of action of different anti-Alzheimer drugs, response of treatment, efficacy of treatment,	1

Weeks	Objectives	Theory/hr
8	• Pharmacology of antidepressant drugs: , drug selection, mechanism of action, pharmacokinetics and dosing, side effects, drug interaction, other uses.	2
9	• Pharmacology of antipsychotic drugs: classification of antipsychotic drugs, indications, mechanism of action, pharmacokinetics and dosing, side effects, drug interaction, other uses of these agents. • Pharmacology of lithium, mood-stabilizing drugs, & other treatment for dipolar disorder	2