

## نموذج وصف المقرر الدراسي

اسم الجامعة: جامعة وارث الانبياء عليه السلام

الكلية/المعهد: كلية الطب


القسم العلمي: التعليم لطبيب


اسم المقرر: الوحدة التاسعة / المرحلة الثالثة


النظام الدراسي: النظام الكفائي


تاريخ اعداد الوصف: ٢٠٢٥ / ٨ / ٢٧

تاريخ ملء الملف: ٢٠٢٥ / ٨ / ٢٧

التوقيع:   
معاون العميد للشؤون العلمية: أ.م. د. وليد محمد  
التاريخ: ٢٠٢٥ / ٨ / ٢٧

التوقيع:   
رئيس الفروع او الوحدة: د. فاطمة محمد  
التاريخ: ٢٠٢٥ / ٨ / ٢٧

تم تدقيق الملف من قبل  
شعبة ضمان الجودة والأداء الجامعي  
اسم مدير شعبة ضمان الجودة والأداء الجامعي: د. فاطمة محمد  
التاريخ: ٢٠٢٥ / ٨ / ٢٧  
التوقيع: 

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الاستاذ المساعد  
عميد كلية الطب  
عميد كلية الطب



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			
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		



	<ul style="list-style-type: none"> <li>• Mechanisms of sleep and wakefulness</li> </ul>			
6	<ul style="list-style-type: none"> <li>• Basal ganglia</li> <li>• Regulation of tone, posture and movements</li> <li>• The involuntary movements (tremors)</li> </ul>	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	<ul style="list-style-type: none"> <li>• Sensory, motor and association functions of the cerebral cortex</li> <li>• including higher functions e.g. Speech</li> <li>• Correlate the pathophysiological changes to clinical manifestations of lesions of the internal capsule and brain stem</li> </ul>	2		
TOTAL		19		2

### 3. Pathology

week s	Objectives/theory	Numbe r of hours	Objectives/practic al	Numbe r of hours
<b>Week 1</b>	1. Reactions of neurons, Astrocytes and other glial cells to injury. 2. Types of trauma to CNS <ol style="list-style-type: none"> <li>Skull fracture</li> <li>Parenchymal injury</li> <li>Traumatic vascular injury               <ol style="list-style-type: none"> <li>Epidural hematoma</li> <li>Subdural hematoma</li> </ol> </li> </ol> Sequel of brain trauma & Spinal cord trauma.	<b>1</b>		
<b>Week 2</b>	1- Infectious injury to the CNS 2- Acute meningitis <ol style="list-style-type: none"> <li>Acute pyogenic (bacterial) meningitis</li> <li>Acute aseptic (viral) meningitis</li> </ol> 3- Acute focal suppurative infections	<b>1</b>		



	a. Brain abscess (definition, predisposing factors, morphology) 4- Chronic bacterial meningoencephalitis a. Tuberculosis 5- Viral meningoencephalitis Fungal meningoencephalitis and other CNS infections			
<b>Week 3</b>	<ul style="list-style-type: none"> <li>• Definition, epidemiology, pathological types of cerebrovascular disease</li> <li>• Hypotension, Hypoperfusion and low flow states.</li> <li>• Infarction from local blood supply obstruction.</li> <li>• Hypertensive cerebrovascular accidents.               <ul style="list-style-type: none"> <li>○ Lacunar infarcts</li> <li>○ Slit hemorrhages</li> <li>○ Hypertensive encephalopathy</li> </ul> </li> <li>• Intracranial hemorrhage               <ul style="list-style-type: none"> <li>○ Intracerebral hemorrhage</li> <li>○ Subarachnoid hemorrhage</li> </ul> </li> </ul> Vascular malformations	<b>2</b>	<b>Gross and morphological changes in different forms of CNS vascular lesions</b>	<b>2 hours</b>
<b>Week 4</b>	1- Definition of demyelinating diseases 2- Multiple sclerosis (definition, pathogenesis, morphological features) 3- Acute disseminated encephalomyelitis Other diseases with demyelination	<b>1</b>		
<b>Week 5</b>	<b>No pathology lectures</b>			
<b>Week 6</b>	1- . Degenerative diseases of the basal ganglia and brain stem. 2- Parkinsonism and Parkinson's disease. Huntington's disease.	<b>1</b>		
<b>Week 7</b>	<ul style="list-style-type: none"> <li>• Degenerative diseases affecting cerebral cortex.</li> <li>• Alzheimer disease (definition, morphology, pathogenesis)</li> </ul> Other types of degenerative diseases of the cerebral cortex	<b>1</b>		
<b>Week 8</b>	<b>No pathology lectures</b>			
<b>Week 9</b>	<b>No pathology lectures</b>			
<b>Week 10</b>	<ul style="list-style-type: none"> <li>• Epidemiology and pathological types of brain tumours</li> <li>• Gliomas (Astrocytoma, Oligodendroglioma, Ependymoma)</li> <li>• Neuronal tumours.</li> </ul>	<b>2</b>	<b>Gross and morphological changes in CNS neoplasms</b>	<b>2 hours</b>



	<ul style="list-style-type: none"> <li>• Poorly differentiated neoplasms (medulloblastoma)</li> <li>• Other parenchymal tumours <ul style="list-style-type: none"> <li>○ Primary CNS lymphoma</li> <li>○ Germ cell tumours</li> </ul> </li> <li>• Meningioma</li> <li>• Metastatic tumours</li> <li>• Para neoplastic syndromes</li> <li>• Peripheral nervous system tumours</li> </ul> Schwanoma and Neurofibroma			
<b>Week 11</b>	<b>No pathology lectures</b>			
<b>Week 12</b>	<b>No pathology lectures</b>			
<b>Total hours</b>		<b>8</b>		<b>4</b>

#### 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	<ul style="list-style-type: none"> <li>• Pharmacology of disease modifying agents in MS</li> <li>• Pharmacotherapy of complications of MS</li> </ul>	1
2	<ul style="list-style-type: none"> <li>• Pharmacology of antibiotics used in the treatment of bacterial meningitis: choice of the drug, route of administration, antibiotic</li> </ul>	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 bipolar disorder	2