

**KING SAUD UNIVERSITY  
COLLEGE OF MEDICINE**

**WEEK 1 – NERVOUS SYSTEM BLOCK (Male-Group A)**

Week ( 1 ) Starting:

25/9/2010 (16/10/1431H)

**ANS, Spinal Cord & Peripheral Nerves**

CHAIR PERSON: Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 25 September 2010	Sunday 26 September 2010	Monday 27 September 2010	Tuesday 28 September 2010	Wednesday 29 September 2010
8:00 - 9:00 am Organization of the CNS <b>(Anatomy)</b> Dr.Khaleel Al-Yahiya	8:00-9:00am Pharmacology of the ANS <b>(Pharmacology)</b> Prof.Al-Haider	8:00 - 9:00 am Brachial plexus and radial nerve <b>(Anatomy)</b> Dr.Wahra	8:00 - 9:00am Median and ulnar nerves <b>(Anatomy)</b> Dr.Saeed Abul Makarem	8:00 - 9:00 am Sacral plexus, sciatic nerve and femoral nerve <b>(Anatomy)</b> Dr.Ahamed Fathalla
9:00 - 10:00 am Physiology of synapses and receptors <b>(Physiology)</b> Dr. Taha	9:00- 11:00am <b>Practical</b>  Dermatomes, myotomes and surface anatomy  <b>(Anatomy)</b>  All	9:00 - 10:00 am Anatomy and physiology of the parasympathetic NS <b>(Physiology)</b> Prof. Sultan	9:00 - 11:00am <b>Practical</b> Spinal cord <b>(Histology)</b> All	9:00 - 10:00 am Physiology of pain <b>(Physiology)</b> Prof. Ashraf
10:00 - 11:00am Anatomy of the spinal cord  <b>(Anatomy)</b> Dr.Essameldin Salama		10:00 - 11:00am Embryological development of the spinal cord and vertebral column <b>(Anatomy)</b> Dr.Essameldin Salama		10:00 - 12:00 pm Examination of sensory system <b>(Introduction to Clinical Medicine)</b> Dr.Ahamed Abuelnaja
11:00- 12:00 pm Anatomy and physiology of sympathetic nervous system <b>(Physiology)</b> Prof. Sultan	11:00- 12:00 pm Spinal cord Functions & reflexes <b>(Physiology)</b>  Dr. Taha	11:00 - 12:00 pm Physiology of motor tracts <b>(Physiology)</b> Dr. Taha	11:00 - 12:00 pm Stretch reflex & tendon jerks <b>(Physiology)</b> Dr. Taha	
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 - 2:00 pm <b>Self-Directed Learning</b>	1:00 -3:00pm Small Group Learning(PBL)  Case 1 Part 1	1:00 - 2:00 pm Sensory tracts <b>(Anatomy)</b> Dr.Saeed Abul Makarem	1:00 - 2:00 pm spinal cord <b>(Radiology)</b> Dr.Taja Al-Dean	1:00 -3:00pm Small Group Learning(PBL)  Case 1 Part 2
2:00 – 3:00pm <b>Self-Directed Learning</b>	3:00 – 4:00pm  <b>Self-Directed Learning</b>	2:00 – 3:00pm <b>Self-Directed Learning</b>		3:00 – 4:00pm  <b>Self-Directed Learning</b>

**LECTURE THEATER A**

**Room No.2141, Level 2**

**WEEK 2 – NERVOUS SYSTEM BLOCK (Male-Group A)**

Week (2) Starting:

2/10/2010 (23/10/1431H)

**Brainstem & Related Cranial Nerves**

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 02 October 2010	Sunday 03 October 2010	Monday 04 October 2010	Tuesday 05 October 2010	Wednesday 06 October 2010
8:00 - 9:00 am Anatomy of brainstem (Anatomy) Dr.Ahamed Fathalla	8:00-9:00am Normal cells of the CNS (Histology) Dr.Ali Mohammad	8:00-9:00am Anatomy of CN 11 & 12 (Anatomy) Dr.Essameldin Salama	8:00 - 9:00am Pathology of brain tumors –II (Pathology) Dr.Hisham Al-Khalidi	8:00 - 9:00 am Pathology and pathogenesis of multiple sclerosis (Pathology) Dr.Hisham Al-Khalidi
9:00 - 10:00 am Internal structures of the brainstem (Anatomy) Dr.Whara	9:00 - 10:00 am Self-Directed Learning	9:00 - 10:00 am Pathology of brain tumors –I (Pathology) Dr.Hisham Al-Khalidi	9:00 - 10:00 am Radiology of brain tumors (Radiology) Dr.Hamdi Hussain	9:00 - 10:00 am Becoming a student in a PBL tutorial Prof.Azer
10:00 - 11:00am Anatomy of CN 9&10 (Anatomy) Dr.Saeed Abul Makarem	10:00 -12:00 pm <u>Practical</u> EMG/nerve conduction  (Physiology)	10:00 - 11:00am Self-Directed Learning	10:00 - 12:00pm <u>Practical</u> brachial plexus and lumbosacral Plexus (Anatomy) All	10:00 - 12:00 pm <u>Practical</u> neuropathology I (Pathology) Dr.Amer Shefi
11:00- 12:00 pm Physiology of the brainstem  (Physiology) Prof. Ashraf		11:00 - 12:00 pm Biochemistry of myelin (Biochemistry) Dr.Amr Moustafa		
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 - 3:00 pm <u>Practical</u> Brainstem & CNs (Anatomy) All	1:00 -3:00pm Small Group Learning(PBL)  Case 2 Part 1 3:00 – 4:00pm  Self-Directed Learning	1:00 - 3:00 pm  Salam	1:00 - 3:00 pm  Self-Directed Learning	1:00 -3:00pm Small Group Learning(PBL)  Case 2 Part 2 3:00 – 4:00pm  Self-Directed Learning

LECTURE THEATER A

Room No.2141, Level 2

WEEK 3 – NERVOUS SYSTEM BLOCK (Male-Group A)

Week (3) Starting:

9/10/2010 (1/11/1431H)

Hearing & Special Senses

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 09 October 2010	Sunday 10 October 2010	Monday 11 October 2010	Tuesday 12 October 2010	Wednesday 13 October 2010
8:00 - 9:00am Anatomy of the Ear  (Anatomy) Dr.Saeed Abul Makarem	8:00 - 9:00 am Physiology of the eye & refraction (Physiology)  Prof. Gader	8:00-9:00am Photo transduction in light and dark (Physiology) Prof. Gader	8:00 - 9:00 am Vitamin A (Biochemistry) Dr.Ussman	8:00 - 9:00 am Anatomy of the nose and olfactory nerve (Anatomy) Dr.Saeed Abul Makarem
9:00 - 10:00 am Physiology of hearing (Physiology) Prof. Gader	9:00 - 10:00 am Self Directed Learning	9:00 - 10:00am Physiology of color vision (Physiology) Prof. Gader	9:00 - 10:00am Vision, Accommodation & the light pathways and effects of lesions (Physiology) Prof. Gader	9:00 - 10:00 am Physiology of Smell (Physiology) Prof. Gader
10:00- 11:00am Microbiology of middle ear infection (Microbiology) Dr.Ali Somily	10:00 - 11:00pm Introduction to the course and overview about professionalism (Professionalism)	10:00 - 11:00 am Self Directed Learning	10:00- 12:00pm Practical Audiometry (Physiology)	10:00 - 11:00am Self Directed Learning
11:00 12:00pm Cranial nerve number 8 (Anatomy) Dr.Ahamed Fathalla	11:00 12:00pm Self Directed Learning	11:00- 12:00pm Cranial nerves: 2, 3, 4, 6 (Anatomy) Dr.Essameldin Salama		11:00- 12:00pm Nerve supply of the face (Cranial nerves 5 and 7)  (Anatomy) Dr.Ahamed Fathalla
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 - 3:00 pm Practical  Color vision, light and accommodation reflex	1:00 -3:00pm Small Group Learning (PBL)  Case 3 Part 1 3:00 - 4:00pm  Self-Directed Learning	1:00 -3:00 pm  Salam	1:00 - 3:00 pm  Clinical examination of cranial nerves (Introduction to clinical medicine)  Dr.Ahamed Abuelnaja	1:00 -3:00pm Small Group Learning (PBL)  Case 3 Part 2 3:00 - 4:00pm  Self-Directed Learning

LECTURE THEATER A

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WEEK 4 – NERVOUS SYSTEM BLOCK (Male-Group A)

Week (4) Starting:

16/10/2010 (8/11/1431H)

The Balance System

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 16 October 2010	Sunday 17 October 2010	Monday 18 October 2010	Tuesday 19 October 2010	Wednesday 20 October 2010
8:00 – 9:00 am Introduction to the balance system (Neurology) Prof.Abdulrahman Al- Tahan	8:00 - 9:00am Introduction to the cerebellum and 8 <sup>th</sup> cranial nerve (Physiology) Prof. Sultan	8:00-9:00am Physiology of the cerebellum (Physiology) Prof. Sultan	8:00 - 9:00am Drugs related to balance system (Pharmacology) Dr.Osama	8:00 - 9:00 am Physiology of postural reflexes (Physiology) Prof. Ashraf
9:00 - 10:00 am Physiology of the proprioceptors in Balance (Physiology) Prof. Ashraf	9:00 – 10:00 am Anatomy of the cerebellum and the relevant connections (Anatomy) Dr.Ahamed Fathalla	9:00 – 10:00am  Self Directed Learning	9:00 – 10:00am  Self Directed Learning	9:00 - 10:00 am Epilepsy (Neurology) Prof.Saad Al- Rajeh
10:00 - 11:00am Self Directed Learning	10:00 - 11:00am Physiology of the inner ear (Physiology) Prof. Gader	10:00 - 12:00pm Self Directed Learning	10:00 - 11:00 am  Self Directed Learning	10:00 - 11:00am Physiology of sleep (Physiology)  Dr. Taha
11:00- 12:00pm Pathways of proprioception (Physiology)  Prof. Ashraf	11:00- 12:00pm  Self Directed Learning		11:00- 12:00pm  Self Directed Learning	11:00- 12:00pm Self Directed Learning
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 - 3:00 pm Definition and key elements of professionalism. General concepts of professionalism  (Professionalism)	1:00 - 3:00 pm <u>Practical</u> of cerebellum and 5-12 cranial nerve3 (Anatomy) All	1:00 - 3:00 pm  Salam	1:00 - 3:00 pm Ataxia and examination of the balance system (Introduction to clinical medicine)  Dr.Ahamed Abuelnaja	1:00 - 3:00 pm  Self Directed Learning

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**WEEK 5 – NERVOUS SYSTEM BLOCK (Male-Group A)**

Week (5) Starting:

23/10/2010 (15/11/1431H)

Cerebral Hemisphere & Blood Circulation

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 23 October 2010	Sunday 24 October 2010	Monday 25 October 2010	Tuesday 26 October 2010	Wednesday 27 October 2010
8:00 – 9:00 am Anatomy of the cerebral hemispheres (Anatomy) <b>Dr.Essameldin Salama</b>	8:00 - 9:00am Physiology of speech (Physiology) <b>Dr. Shahid</b>	8:00-9:00am Pathogenesis and risk factors of cerebrovascular accidents (Pathology) <b>Dr.Hisham Al-Khalidi</b>	8:00 - 9:00am Upper and lower neuron lesions (Physiology) <b>Prof. Ashraf</b>	8:00 - 9:00 am Radiology of cerebral hemisphere (Radiology) <b>Prof.Ibrahim Al-Orini</b>
9:00 – 10:00 am Cerebral blood circulation {arteries and veins} (Anatomy) <b>Dr.Ahamed Fathalla</b>	9:00 – 10:00 am Understanding the physiological basis of speech disorders (Neurology) <b>Dr.Fawaz Al-Hussain</b>	9:00 – 10:00am  <b>Self Directed Learning</b>	9:00 – 10:00am Embryology of cerebral hemisphere and cerebellum (Lecture, Anatomy) <b>Dr.Saeed Abul Makarem</b>	9:00 - 10:00 am Physiology of consciousness (Physiology) <b>Dr. Taha</b>
10:00 - 11:00am Functions of cerebral hemisphere (Physiology) <b>Prof. Ashraf</b>	10:00- 11:00 am Pathogenesis of cerebral infarction at cellular and molecular levels ((Biochemistry) <b>Dr.Amr Moustafa</b>	10:00 - 12:00pm <b>Practical</b>  Examination of the motor system and reflexes (Physiology)	10:00 - 11:00 am <b>Self Directed Learning</b>	10:00 - 11:00am Drugs used in headache and migraine (Pharmacology) <b>Dr. Mahesar</b>
11:00 - 12:00 pm Physiology of brain transmitters (Physiology) <b>Dr. Taha</b>	11:00- 12:00 pm Autoregulation of cerebral blood flow (Physiology)  <b>Prof. Sultan</b>		11:00-12:00 pm Spasticity and increased muscle tone (Physiology)  <b>Dr. Taha</b>	11:00- 12:00 pm  <b>Self Directed Learning</b>
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 - 3:00 pm <b>Practical</b> Cerebral hemisphere (Anatomy) <b>All</b>	1:00 -3:00pm Small Group Learning(PBL) Case 4 Part 1	1:00 - 3:00 pm  <b>Salam</b>	1:00 - 3:00 pm Localization of the lesions of the nervous system (Introduction to clinical medicine) <b>Dr.Ahamed Abuelnaja</b>	1:00 -3:00pm Small Group Learning(PBL) Case 4 Part 2
	3:00 – 4:00pm <b>Self-Directed Learning</b>			3:00 – 4:00pm <b>Self-Directed Learning</b>

WEEK 6 – NERVOUS SYSTEM BLOCK (Male-Group A)

Week (6) Starting:

30/10/2010 (22/11/1431H)

Neuropsychiatric Disorders and Basal Ganglia

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 30 October 2010	Sunday 31 October 2010	Monday 01 November 2010	Tuesday 02 November 2010	Wednesday 03 November 2010
<b>Mid Exam</b>	8:00 ~ 9:00am Anatomy of the limbic system and thalamus <b>(Anatomy)</b> Dr.Ahamed Fathalla	8:00 ~ 9:00am Introduction to neuropsychiatric disorders <b>(Psychiatry)</b> Dr.Bazaid	8:00 ~ 9:00am Schizophrenia <b>(Psychiatry)</b> Dr.Al-Osaimi	8:00 ~ 9:00 am Drugs used in chronic pain <b>(Pharmacology)</b> Dr.Osama
	9:00 – 10:00 am Pathogenesis and pathology of parkinsonism <b>(Pathology)</b> Dr.Hisham Al-Khalidi	9:00 – 10:00am Drugs used in epilepsy <b>(Pharmacology)</b> Prof.Al-Humayyd	9:00 – 10:00am Pain modulation <b>(Physiology)</b> Prof. Ashraf	9:00 ~ 10:00 am Drugs used in depression- old groups <b>(Pharmacology)</b> Prof.Al-Haider
10:00 - 11:00am Anatomy of the basal ganglia and connections <b>(Anatomy)</b> Dr.Khaleel Al-Yahiya	10:00- 12:00 pm Accountability and professional responsibilities <b>(Professionalism)</b>	10:00 ~ 11:00am <b>Self Directed Learning</b>	10:00 ~ 11:00 am Drugs used in epilepsy <b>(Pharmacology)</b> Prof.Al-Humayyd	10:00 ~ 11:00am <b>Self Directed Learning</b>
11:00 ~ 12:00 pm Physiology of basal ganglia and regulatory mechanisms <b>(Physiology)</b> Dr. Shahid		11:00- 12:00pm Depression <b>(Psychiatry)</b> Dr.Al-Jarad	11:00 ~ 12:00 pm Drugs used in anxiety and panic disorders <b>(Pharmacology)</b> Dr.Osama	11:00- 12:00pm <b>Self Directed Learning</b>
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 ~ 2:00 pm Drugs used in parkinsonism <b>(Pharmacology)</b> Prof.Al-Haider	1:00 ~3:00pm Small Group Learning(PBL) Case 5 Part 1	1:00 ~ 2:00 pm <b>Salam</b>	1:00 ~ 2:00 pm Drugs used in schizophrenia <b>(Pharmacology)</b> Prof.Al-Motrefi	1:00 ~3:00pm Small Group Learning(PBL) Case 5 Part 2
	3:00 – 4:00pm <b>Self-Directed Learning</b>			3:00 – 4:00pm <b>Self-Directed Learning</b>

**WEEK 7 – NERVOUS SYSTEM BLOCK (Male-Group A)**

Week (7) Starting:

6/11/2010 (29/11/1431H)

**Cerebrospinal Circulation and CNS Infections**

**CHAIR PERSON : Prof. Sultan Ayoub Meo**

**CO-CHAIR: Dr. Omar Al-Habib**

Saturday 06 November 2010	Sunday 07 November 2010	Monday 08 November 2010	Tuesday 09 November 2010	Wednesday 10 November 2010
8:00 – 9:00 am Anatomy of the meninges, CNS cavities, and CSF circulation <b>(Anatomy)</b> <i>Dr.Saeed Abul Makarem</i>	8:00 - 9:00am Microbiology of acute pyogenic meningitis <b>(Microbiology)</b> <i>Dr.Ali Somily</i>	8:00-10:00am <b>Practical</b> neuopathology II <b>(Pathology)</b> <i>Dr.Amer Shefi</i>	8:00 - 9:00am Pathology of meningitis and its complications <b>(Pathology)</b> <i>Dr.Hisham Al-Khalidi</i>	8:00 - 9:00 am Cerebral TB and other chronic cerebral infections <b>(Microbiology)</b> <i>Prof.Kambal</i>
9:00 - 10:00 am Drugs used in depression- new groups <b>(Pharmacology)</b> <i>Prof.Al-Haider</i>	9:00 – 10:00 am Congenital malformations and Hydrocephalus <b>(Pathology)</b> <i>Dr.Hisham Al-Khalidi</i>		9:00 – 10:00am Biochemical aspects of CSF <b>(Biochemistry)</b> <i>Dr.Chishti</i>	9:00 - 10:00 am Cerebral malaria <b>(Microbiology)</b> <i>Prof.Adeel</i>
10:00 ~ 11:00am Self Directed Learning	10:00~ 11:00 am Self Directed Learning	10:00 - 11:00am Self Directed Learning	10:00 ~ 11:00 am Drugs used in meningitis <b>(Pharmacology)</b> <i>Prof.Al-Humayyd</i>	10:00 - 12:00pm <b>Practical</b> Biochemical aspects of CSF <b>(Biochemistry)</b> <i>Dr.Amr Moustafa</i>
11:00 ~ 12:00 pm Self Directed Learning	11:00 ~ 12:00 pm Viral infections of the CNS <b>(Microbiology)</b> <i>Dr.Ali Somily</i>	11:00- 12:00pm Fungal infections of the CNS <b>(Microbiology)</b> <i>Dr.Al-Barrag</i>	11:00 ~ 12:00 pm Self Directed Learning	
Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
1:00 ~ 3:00 pm Initiative, integrity and trustworthiness <b>(Professionalism)</b>	1:00 ~3:00pm Small Group Learning(PBL)  Case 6 Part 1 3:00 – 4:00pm  Self-Directed Learning	1:00 ~ 3:00 pm  Salam	1:00 ~ 3:00 pm Self Directed Learning	1:00 ~3:00pm Small Group Learning(PBL)  Case 6 Part 2 3:00 – 4:00pm  Self-Directed Learning

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WEEK 8 – NERVOUS SYSTEM BLOCK (Male-Group A)

Week (8) Starting:

20/11/2010 (14/12/1431H)

Ageing and Trauma of the Nervous system

CHAIR PERSON : Prof. Sultan Ayoub Meo

CO-CHAIR: Dr. Omar Al-Habib

Saturday 20 November 2010	Sunday 21 November 2010	Monday 22 November 2010	Tuesday 23 November 2010	Wednesday 24 November 2010
<b>Vacation</b>	<b>Vacation</b>	8:00 - 9:00am Ageing and changes in the brain <b>(Physiology)</b> Dr. Shahid	8:00 - 9:00am Biochemical aspects of Alzheimer <b>(Biochemistry)</b> Dr. Chishti	8:00 - 9:00 am Pathological aspects of trauma and cellular aspects of injury <b>(Pathology)</b> Dr. Hisham Al-Khalidi
		9:00 – 10:00am Causes and pathology of dementia <b>(Pathology)</b> Dr. Hisham Al-Khalidi	9:00 – 10:00am Vitamin B 12 <b>(Biochemistry)</b> Dr. Ussman	9:00 - 10:00 am Self Directed Learning
		10:00 - 11:00am Self awareness and self care <b>(Professionalism)</b>	10:00 - 11:00 am Drugs used in dementia <b>(Pharmacology)</b> Dr. Saeed	10:00 - 11:00am Delirium vs dementia <b>(Neurology)</b> Dr. Mansor Al- Moalim
		11:00- 12:00pm Vitamin B1, B6 <b>(Biochemistry)</b> Dr. Ussman	11:00 - 12:00 pm Radiological aspects of nervous system trauma <b>(Radiology)</b> Dr. Fahad Al-Bader	11:00- 12:00pm Head injuries in Saudi Arabia: incidence, mechanisms, and causes <b>(Neurosurgery)</b> Dr. Amro Al-Habib
		Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm	Lunch 12:00- 1:00 pm
		1:00 - 3:00 pm  Salam	1:00 - 2:00 pm Alcohol and the brain <b>(Pharmacology)</b> Prof. Al-Haider	1:00 - 3:00 pm  Self Directed Learning

LECTURE THEATER A

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## NERVOUS SYSTEM BLOCK

### Anatomy

- Organization of the CNS
- Anatomy of the spinal cord
- Brachial plexus and radial nerve
- Embryological development of the spinal cord and vertebral column
- Median and ulnar nerves
- Sacral plexus, sciatic nerve and femoral nerve
- Anatomy of brainstem
- Internal structure of the brainstem
- Anatomy of CN 9 &10
- Normal cells of the CNS
- Anatomy of CN 11 &12
- Anatomy of the ear
- Cranial nerve 8
- Cranial nerves 2,3,4,6
- Anatomy of the nose and olfactory nerve
- Nerve supply of the face (cranial nerves 5 and 7)
- Anatomy of the cerebellum and the relevant and the relevant connections
- Anatomy of the cerebral hemispheres
- Cerebral blood circulation
- Embryology of cerebral hemisphere and cerebellum
- Anatomy of the basal ganglia and connections
- Anatomy of the limbic system and thalamus
- Anatomy of the meninges, CNS cavities, and CSF circulation

### Physiology

- Physiology of synapses and receptors
- Anatomy and physiology of sympathetic nervous system
- Spinal cord functions and reflexes
- Anatomy and physiology of parasympathetic nervous system
- Stretch reflex and tendon jerks
- Physiology of pain
- Physiology of the brainstem
- Physiology of hearing
- Physiology of the eye & refraction
- Photo transduction in light and dark
- Physiology of color vision
- Vision, accommodation and light pathways and effects of lesions
- Physiology of smell
- Physiology of the proprioceptors in balance
- Pathways of proprioceptions
- Introduction to the cerebellum and 8<sup>th</sup> cranial nerve
- Physiology of the inner ear
- Physiology of the cerebellum

- Physiology of postural reflexes
- Physiology of sleep
- Functions of cerebral hemisphere
- Physiology of brain transmitters
- Physiology of speech
- Autoregulation of cerebral blood flow
- Upper and lower neuron lesions
- Spasticity and increased muscle tone
- Physiology of consciousness
- Physiology of basal ganglia and regulatory mechanisms
- Physiology of pain control system
- Ageing and changes in the brain

### **Pathology**

- Pathology of brain tumors-I
- Pathology of brain tumors-II
- Pathology and pathogenesis of multiple sclerosis
- Pathogenesis and risk factors of cerebral vascular accidents
- Pathogenesis and pathology of parkinsonism
- Congenital malformations and hydrocephalus
- Pathology of meningitis and its complications
- Pathological aspects of trauma and cellular aspects of injury

### **Microbiology**

- Microbiology of ear infection
- Microbiology of acute pyogenic meningitis
- Viral infections of the CNS
- Fungal infections of the CNS
- Cerebral TB and other chronic cerebral infections
- Cerebral malaria

### **Biochemistry**

- Biochemistry of myelin
- Vitamin A
- Pathogenesis of cerebral infarction at cellular levels
- Biochemical aspects of CSF
- Biochemical aspects of Alzheimer
- Vitamin B1 and B6
- Vitamin B12

### **Pharmacology**

- Pharmacology of the ANS
- Drugs affecting the balance system
- Drugs used in epilepsy
- Drugs used in anxiety and panic disorders
- Drugs used in headache and migraine
- Drugs used in chronic pain
- Drugs used in depression- old groups

- Drugs used in depression- new groups
- Drugs used in meningitis
- Alcohol and the brain
- Drugs used in dementia

### **Neurology**

- Sensory tracts
- Introduction to the balance system
- Epilepsy
- Delirium vs dementia

### **Neurosurgery**

- Head injuries in Saudi Arabia: incidence, mechanisms and causes

### **Psychiatry**

- Introduction to neuropsychiatric disorders
- Depression
- Schizophrenia

### **Radiology**

- Radiology of brain tumors
- Radiology of cerebral hemisphere
- Radiological aspects of nervous system trauma

### **Introduction to Clinical Medicine**

- Examination of sensory system
- Examination of the motor system and reflexes
- Localization of the lesions of the nervous system
- Color vision, light and accommodation reflex
- Clinical examination of cranial nerves
- Ataxia and examination of the balance system
- Becoming a student in a PBL tutorial
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### **Professionalism**

- Introduction to the course and overview about professionalism
- Definitions and key elements of professionalism. General concepts of professionalism
- Accountability and professional responsibilities
- Initiative, integrity and trustworthiness
- Self awareness and self care