



## NEUROSURGERY DEPARTMENT



# Neurosurgical Anatomy Curriculum

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### **i. GROSS ANATOMY OF THE BRAIN**

- Divisions Of The Brain

### **ii. CEREBRAL CORTEX**

- Neocortex
- Functional Areas Of The Cerebral Cortex
- Cerebral Dominance

### **iii. MENINGES AND CEREBROSPINAL FLUID**

- Meninges
- Ventricles
- Cerebrospinal Fluid
- Circumventricular Organs

### **iv. BLOOD SUPPLY OF THE CENTRAL NERVOUS SYSTEM**

- Arteries Of The Spinal Cord
- Venous Drainage Of The Spinal Cord
- Arteries Of The Brain
- Cerebral Arterial Circle Of Willis
- Meningeal Arteries
- Veins Of The Brain



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- Venous Dural Sinuses

### v. SPINAL CORD

- External Morphology
- Internal Morphology

### vi. TRACTS OF THE SPINAL CORD

- Ascending Tracts
- Descending Tracts
- Clinical Correlation

### vii. BRAINSTEM

- Myelencephalon
- Pons
- Mesencephalon
- Corticobulbar Fibers

### viii. CRANIAL NERVES

- Olfactory Nerve (CN I)
- Optic Nerve (CN II)
- Oculomotor Nerve (CN III)
- Trochlear Nerve (CN IV)
- Trigeminal Nerve (CN V)
- Abducent Nerve (CN VI)
- Facial Nerve (CN VII)



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- Vestibulocochlear Nerve (CN VIII)
- Glossopharyngeal Nerve (CN IX)
- Vagal Nerve (CN X)
- Accessory Nerve (CN XI)
- Hypoglossal Nerve (CN XII)

### ix. AUDITORY SYSTEM

- Auditory Pathway

### x. VESTIBULAR SYSTEM

- Labyrinth
- Vestibular Pathways
- Efferent Vestibular Connections
- Medial Longitudinal Fasciculus

### xi. VISUAL SYSTEM

- Visual Pathway
- Pupillary Light Reflexes And Pathways
- Pupillary Dilatation Pathway
- The Convergence-Accommodation Reaction
- Centers For Ocular Motility

### xii. OLFACTORY AND LIMBIC SYSTEM

- Olfactory System
- Limbic System



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### **xiii. BASAL NUCLEI AND EXTRAPYRAMIDAL MOTOR SYSTEM**

- Basal Nuclei
- Extrapyrarnidal Motor System

### **xiv. DIENCEPHALON: THALAMUS AND HYPOTHALAMUS**

- Boundaries Of The Thalamus
- Primary Thalamic Nuclei And Their Major Connections
- Blood Supply Of The Thalamus
- Internal Capsule
- Blood Supply Of The Internal Capsule
- Hypothalamic Regions And Nuclei
- Major Hypothalamic Connections

### **xv. CEREBELLUM**

- Major Divisions Of Cerebellum
- Cerebellar Cortex
- Major Cerebellar Pathways

### **xvi. SKULL AND SKULL BASE**

- External Morphology Of The Skull
- Skull Foramina And Contents
- Anterior And Middle Cranial Fossae
- Sellar Region
- Cavernous Sinus



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### xvii. SCALP

- Layers Of The Scalp
- Arterial Supply Of The Scalp
- Nerve Supply Of The Scalp

### xviii. ANTERIOR AND POSTERIOR TRIANGLES OF THE NECK

- Anterior Triangles Of The Neck And Their Contents
- Posterior Triangle Of The Neck And Its Content

### xix. Vertebral column

- Bony Anatomy Of The Cervical, Thoracic And Lumbar Vertebrae
- Ligaments And Muscles Of The Back
- Bony And Ligamentous Anatomy Of The Craniocervical Junction

### Head of The Department

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