**Topics of Module NRS 1st semester - 2nd year (2024- 2025)**

* **Lectures: 32 L= 64 hrs**

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| **Lectures** | **Departments** | **NO** | **Hours** |
| **Introduction of nervous system** | | | |
| 1. **Histological structure of Neurons & their types.** | **Histology** | **1** | **2 hrs** |
| 1. **Nerve fibres, their covering, PNS & Degeneration & regeneration of nervous tissue.** | **Histology** | **1** | **2 hrs** |
| 1. **Ganglia & Neuroglia.** | **Histology** | **1** | **2 hrs** |
| 1. **Synapse.** | **Physiology** | **1** | **2 hrs** |
| 1. **Organization of Neurons in Neuronal pool.** | **Physiology** | **1** | **2 hrs** |
| 1. **Skin & Nerve ending.** | **Histology** | **2** | **4 hrs** |
| 1. **Sensory receptors & Sensory code.** | **Physiology** | **1** | **2 hrs** |
| 1. **Somatic sensations.** | **Physiology** | **1** | **2 hrs** |
| 1. **Cranial nerves.** | **Anatomy** | **3** | **6 hrs** |
| 1. **Embryological Preview.** | **Anatomy** | **1** | **2 hrs** |
| **Central nervous system** | | | |
| 1. **Anatomy of spinal cord & Lamination.** | **Anatomy** | **1** | **2 hrs** |
| 1. **Brain stem (Types of fibres).** | **Anatomy** | **1** | **2 hrs** |
| 1. **Cerebrum (Functional areas & Internal capsule).** | **Anatomy** | **2** | **4 hrs** |
| 1. **The reflexes.** | **Physiology** | **1** | **2 hrs** |
| 1. **Cortical ascending tracts from body.** | **Histology** | **1** | **2 hrs** |
| 1. **Sub-cortical ascending tracts from body, short tracts & pathways from face & head.** | **Histology** | **1** | **2 hrs** |
| 1. **Lesions of sensory system.** | **Physiology** | **1** | **2 hrs** |
| 1. **Pain & pain control.** | **Physiology** | **1** | **2 hrs** |
| 1. **Headache, EEG & RAS.** | **Physiology** | **2** | **4 hrs** |
| 1. **Descending tracts (Motor).** | **Histology** | **1** | **2 hrs** |
| 1. **Motor cortex.** | **Physiology** | **1** | **2 hrs** |
| 1. **Spinal cord lesions.** | **Physiology** | **1** | **2 hrs** |
| 1. **Basal ganglia.** | **Physiology** | **1** | **2 hrs** |
| 1. **Cerebellum & Brain barriers.** | **Histology** | **1** | **2 hrs** |
| **Physiology** |
| 1. **Ataxia.** | **Physiology** | **1** | **2 hrs** |
| 1. **Anatomy of meninges, Dural folds, Ventricular system & CSF.** | **Anatomy** | **1** | **2 hrs** |
| 1. **Arterial blood supply & Venous drainage of CNS.** | **Anatomy** | **1** | **2 hrs** |
| 1. **Revisions** |  | **4** | **8** |
| **Total** |  | **36** | **72** |

* **Sections**

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| ***Number of sections:*** | |
| * **Histology** | **6** |
| * **Physiology** | **6** |
| * **ECE** | **4** |
| * **Sectra** | **6** |
| * **Cases** | **2** |

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| **Topics** | **Type** | **Hours** |
| **Histology** |
| **A-Nervous tissue** |
| 1. **Nerve cells** | **P** | 1. **hrs** |
| 1. **Nerve trunk & Ganglia** | **P** | 1. **hrs** |
| 1. **Skin & Nerve Ending** | **P** | **2 hrs** |
| **B-Central nervous system** |
| 1. **Difference between Spinal cord levels (Cervical, Thoracic & Lumbar)** | **P** | **2 hrs** |
| 1. **Ascending & Descending tracts** | **P** | **2 hrs** |
| 1. **Difference between open & closed medulla and between cerebrum & cerebellum** | **P** | **2 hrs** |
| **Physiology** |
| 1. **Polysynaptic & monosynaptic reflexes.** | **P** | **2 hrs** |
| 1. **Tactile localization, discrimination, stereognosis & Texture** | **P** | **2 hrs** |
| 1. **Pathways for sensations & lesions** | **P** | **2 hrs** |
| 1. **Thermal sensation & pain sensory code** | **P** | **2 hrs** |
| 1. **EEG** | **P** | **2 hrs** |
| 1. **Parkinson & Ataxia** | **P** | **2 hrs** |
| **Total** | **12** | **24** |

* **Sectra ) Anatomy only):**

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| **Topics** | **Hours** |
| 1. **N. Basalis externa** | **2 hrs** |
| 1. **N. Basalis interna** | **2 hrs** |
| 1. **Cranial nerves** | **2 hrs** |
| 1. **Spinal cord + T.S.** | **2 hrs** |
| 1. **Brain stem + cerebellum** | **2 hrs** |
| 1. **Cerebrum** | **2 hrs** |
| **Total hours** | **12 hrs** |

* **Early clinical exposure**

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| **Topics** | **Departments** | **Hours** |
| 1. **Neuroimaging Basics** | **Neurosurgery** | **2 hrs** |
| 1. **Bell’s Palsy** | **Neurology** | **2 hrs** |
| 1. **Spastic hemiplegia** | **Neurology** | **2 hrs** |
| 1. **Cerebellar Ataxia.** | **Neurology** | **2 hrs** |
| **Total hours** |  | **8 hrs** |

* **Cases**

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| **Topics** | **Hours** |
| 1. **Subdural hematoma.** | **4 hrs** |
| 1. **Incomplete transection of spinal cord** | **4 hrs** |
| **Total hours** | **8 hrs** |

* **Tasks of portfolio**

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| **Anatomy** | * **Interpretation of a neurological Case.** |
| **Physiology** | * **Assignment clinical condition in …...** * **Parkinsons disease (Sensory & motor ataxia).** * **Stroke.** |
| **Histology** | * **Drawing of nerve trunk stained with osmic acid with labelling** |