Neurophysiology (507) (2 credits)

Prof. B.N. Mallick & Prof. Deepak Sharma*

Sl. No.	Topic	Faculty	No. of lectures
1	Neuron, glia, structure and function, Neurotransmitter synthesis and its regulation - General	B.N. Mallick	1
2	Ionic distribution, transmembrane potential, Membrane, lipids, Myelination, channels, receptor, Action potential generation, propagation, Synapse, neurotransmitter release, Axoplasmic transport	B.N. Mallick	3
3	Receptor type, properties, second messenger, sympathetic & parasympathetic nervous system	B.N. Mallick	4
4	Ascending and descending tracts, Spinal cord, Vertebral column, Reflex, properties, types: Myotatic reflex, conditioned and unconditioned reflex, learning, Motor control and decerebrate rigidity injury to brain	B.N. Mallick	6
5	Gross to cellular study - stimulation, lesion, unit studies, anatomical, histological, biochemical, microdialysis, microiontophoresis, molecular studies, in vivo and in vitro cell culture studies	B.N. Mallick	2
6	Development and evolution of brain, Organization of Nervous system - anatomy, cytoarchitecture, brainstem, cerebrum, Cerebellum, reticular formation, cortex, CSF, Blood-brain-barrier,	Deepak Sharma	8
7	Coding of information, Sensation, Touch, Pain, Heat, Itch, etc. Adaptation, Denervation, hypersensitivity, Sensitization,	Deepak Sharma	3

27 $\pm$ 2 lectures

Plus 2 quizzes, one midterm and final exams