

LS 538A Neural and Behavioural Biology 2 Credits Name of the Faculty : Prof. A.C. Mondal*		
Sr.No.	Topic	Faculty Name/ Contact Hours
1.	Vision: Optics, anatomy, transduction of light to electrical energy, Neurophysiology of vision, accommodation, errors, of vision color vision, visual acuity, visual perception	ACM/3
2.	Hearing: Anatomy, transduction of mechanical energy into electrical energy, and neurophysiology of hearing, Otoacoustic Emissions, The auditory nerve and its tonotopic organization, detection of binaural cues for sound location	ACM/3
3.	Neural regulation of body temperature, cardiovascular function, respiration, Neuroendocrine regulation, basis of neuroimmune control, interleukin, etc	ACM/5
4.	States of consciousness – sleep wakefulness behavior, identification, classification, of sleep wakefulness, EEG, EOG, EMG, Neural and neuro chemical regulation of sleep wakefulness, effects of sleep loss, functions of sleep, relation of sleep wakefulness with other functions, biorhythm, clock/per gene regulation	ACM/6
5.	Cognition: Learning and Memory, Emotion and attention	ACM/4
6.	Biorhythm: Circadian clock and its molecular regulation	ACM/1
7.	Ageing and Neural diseases: Factors affecting ageing, Depression, Schizophrenia, epilepsy, Parkinson's and Alzheimer	ACM/4

Further Reading:

1. Principles of Neural Science by Eric R. Kandel, James Harris Schwartz, Thomas M. Jessell
1. Fundamental Neuroscience by Larry R. Squire
2. The Central Nervous System: Structure and function by Per Brodal