

SEMESTER-V

CPSY-311

Neurological Basis of Behavior-II

Credit Hour: 3 (2 + 1)

Type: Foundation

Course Objectives

The Course will enlighten the Students of the link between psychological processes and the brain. It will develop the understanding of the Students regarding brain functioning, anatomy and physiology of the nervous system and its relationship with human behavior.

Course Contents

- **Neurological disorders**

 - Vascular disorders

 - Brain Damage: Trauma from Head Injury, Tumor Epilepsy

 - Psychiatric disorders with organic/biochemical etiology

Practical

Lab Experiments for the practical application of knowledge

- Neuro anatomical terms and plane of reference
- Drug Administration, Its Routes
- Open field observation of Animals
- Dissection of Ruminant (Buffalo's Brain)
- Open field observation of Chick's Behaviors
- Box observation of Chick's Behaviors
- Effect of Isolation and Social Interaction on Chick's Behavior
- T Maze Learning
- Effect of Darkness on Chick's Behavior
- Effect of Drug on Chick's T Maze Performance
- Extinction of T Maze Learning
- Occlusion Experiences and Spatial Memory of Chick
- Spatial cues enhancing memory recall (Spatial Memory Recall in Chick)

Course Outcomes

This Course will develop anatomical, pharmacological, synaptic, neurochemical basis of human behavior such as sensation, sleep, memory, emotions, regulation of eating and drinking. The Students will learn about the neurological disorders and organic causes of psychiatric disorders.

Recommended Books:

Beatty, J. (2006). The human brain essential of behavioral neuroscience. California: Sage Publications, Inc.

Beaumont, J. G. (2008). Introduction to neuroPsychology. (2nd ed.). New York: Guilford. Carlson, N. R. (2005). Foundations of physiological Psychology. USA: Pearson Education, Inc.

Kolb, B., & Whishaw, I. Q. (2003). Fundamentals of human neuroPsychology. (5th ed.). USA: Worth Publishers.

Pinel, J. P. (2010). BioPsychology. (8th ed.). NewYork: Allyn and Bacon.

Sbordone, R. J., Saul, R.E., & Purisch, A.D. (2007). NeuroPsychology for psychologists, health care professionals, and attorneys. (3rd ed.). London: CommUnity Rehabilitation Company.

Stirling, J., & Elliott, R. (2008). Introduction to neuroPsychology. (2nd ed.). New York: Psychology Press.

- **Relevant published articles should be included in the list of reading material**