

DISCIPLINE SPECIFIC ELECTIVE COURSE - 17: FOUNDATIONS OF NEUROPSYCHOLOGY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE 17 Foundations of Neuropsychology	4	3	1	0	Passed Class 12 th	Nil

Learning Objectives

- Develop an understanding of basic concepts of neuropsychology, including its historical developments and theories.
- Comprehensive knowledge of functions and dysfunctions of major brain regions and its impact on behaviour.
- Know basic principles of neuropsychological tests and assessments.
- Learn the principles and goals of neuropsychological rehabilitation to address cognitive impairments.

Learning Outcomes

After completing the course, the student will be able to:

- Articulate key concepts and historical milestones in neuropsychology, including the brain hypothesis and lateralization theories.
- Recognize and describe clinical symptoms associated with brain lesions, disease and their role in behaviour and cognition.
- Know the basic applications of neuropsychological assessments for cognitive and neurological evaluations.
- Conceptualise neuropsychological rehabilitation, addressing specific deficits and patient needs.

SYLLABUS OF DSE-17

UNIT 1

(8 Hours)

Understanding Neuropsychology

Neuropsychology – definition; historical antecedents of neuropsychology – the brain hypothesis, localization, Broca's and Wernicke's discovery, Disconnection syndrome hypothesis; Lateralization – right and left hemisphere.

UNIT 2

(14 Hours)

Frontal lobe and Temporal lobe: functions and dysfunctions

Frontal lobe – anatomy, symptoms of frontal lobe lesions – disturbances of motor functions, loss of divergent thinking, and language; diseases affecting frontal lobe – schizophrenia, Parkinson's disease, and Korsakoff's syndrome, and drug addiction.

Temporal lobe – anatomy; symptoms of temporal lobe lesions – disorders of memory, emotion, and speech; diseases affecting frontal lobe – aphasia, amnesia, and amusia.

UNIT 3

(14 Hours)

Parietal lobe and Occipital lobe: functions and dysfunction

Parietal lobe – anatomy; symptoms of parietal lobe lesions – somatosensory, deficits in arithmetic and writing, spatial cognition; diseases affecting parietal lobe – apraxia, acalculia, and contralateral neglect.

Occipital lobe - anatomy; symptoms of occipital lobe lesions – deficits in visual functions, diseases affecting occipital lobe – agnosia and its types.

UNIT 4

(9 Hours)

Neuropsychological Assessment and Rehabilitation

Introduction, principles, and rationale of neuropsychological assessment; Neuropsychological test – Mini-mental state examination (MMSE), Luria-Nebraska Neuropsychological Battery (LNNB), AIIMS Neuropsychological Battery/NIMHANS Neuropsychological Battery; Neuropsychological Rehabilitation – goals, indicators, and need.

Practical Component: Nil

Tutorial Component:

(15 Hours)

List of Suggested Tutorial Activities:

- Administration of neuropsychological tests (MMSE/AIIMS Neuropsychological Battery/NIMHANS Neuropsychological Battery)
- Interpreting neuropsychological profiles of various brain dysfunctions.
- Analysis of case studies in neuropsychological rehabilitation (e.g., memory disorders, language impairment, visuospatial problems, disorders of reading etc.)
- Movie/Documentary analysis of individuals living with neurological impairment.
- Documenting life stories of individuals and families living with neurological impairment (e.g., Alzheimer, Dementia, Parkinson's, Traumatic Brain Injury, etc.)
- Visit to rehabilitation centres/clinics/hospitals

Essential Readings:

Golden, C. J., Purisch A.D., & Hammeke, T.A. (1991). Luria-Nebraska Neuropsychological Battery: Form I and II. Western Psychological Services.

Johnstone, B., & Stonnington, H. H. (2009). *Rehabilitation of neuropsychological disorders: A practical guide for rehabilitation professionals*. Psychology Press.

Joseph, R. (1990). *Neuropsychology, neuropsychiatry, and behavioral neurology*. Springer Science & Business Media.

Kolb, B. & Whishaw, I.Q. (2007). *Fundamentals of human neuropsychology* (6th ed). New York: Worth Publishers.

Lezak, M.D. (1995). *Neuropsychological assessment*. New York: Oxford University Press.

Rains, G. D. (2001). *Principles of human neuropsychology*. McGraw Hill Higher Education.

Rao, S. L., Subbakrishna, D.K., & Gopkumar, K. (2004). *NIMHANS neuropsychology battery*. National Institute of Mental Health and Neurosciences.

Zillmer, E. A., Spiers, M.V & Culbertson, W.C. (2008). *Principles of neuropsychology*. Thompson Wadsworth USA.

Suggestive Readings:

Halligan, P.W., Kischka, U., & Marshall, J. C. (2003). *Handbook of clinical neuropsychology*. Oxford University Press.

Morgan.J.E., Joseph H.R. (2017). *Textbook of clinical neuropsychology*. Taylor & Francis.

Rajeswaran, J. (2012). *Neuropsychological rehabilitation: principles and applications*. (First Edition), Elsevier.

Walsh, K. (2003). *Neuropsychology- A clinical approach* (4th ed.). Edinburgh: Churchill Livingstone.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC ELECTIVE COURSE - 18: BASIC PSYCHOTHERAPEUTIC SKILLS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre- requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
DSE 18 Basic Psychotherapeutic Skills	4	3	0	1	Passed Class 12 th	Nil

Learning Objectives

The Learning Objectives of this course are as follows:

- To be able to understand various psychotherapeutic modalities & techniques
- To be aware of ethical and legal frameworks to work as a professional therapist
- To develop clinical skills through experiential learning
- To learn how to do assessment & psychotherapy of complex disorders
- To integrate knowledge of theory with practice

Learning Outcomes

After completing this course, the students will be able to:

- Develop an understanding of various therapeutic modalities & psychotherapeutic techniques
- Learn to avoid malpractice as a psychotherapist by abiding by ethical and legal requirements
- Enhance the ability to assess and treat complex psychological issues
- Acquire skills to practice different therapeutic approaches

Syllabus of DSE 18

Unit 1: Introduction to Psychotherapy

(10 hours)

Definition, process, need and scope of Psychotherapy, Verbal response modes and intentions, Case conceptualization in various settings and Case record

Unit 2: Psychotherapeutic Techniques

(15 Hours)

Psychoanalytic psychotherapy (Nancy McWilliams), Logotherapy, Acceptance and commitment therapy, Interpersonal therapy, Narrative therapy

Unit 3: Psychotherapy in diverse settings

(12 Hours)

Group psychotherapy, Psychotherapy in multicultural settings, Expressive therapy (Play therapy/Art therapy/dance therapy)