

# DISCIPLINE SPECIFIC CORE COURSE

## SEMESTER- I

### DSC 101: HUMAN COGNITION: THEORY AND RESEARCH

#### CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITE OF THE COURSE

Course Title & Code	Total Credits	Credit distribution of the course			Eligibility Criteria/ Prerequisite
		Lecture	Tutorial	Practical	
DSC 101 Human Cognition: Theory and Research	4	3	0	1	Graduation from any stream

**Marks:100**

**Hours: 60**

**Credit: 4 (Lectures + Internal Assessment + Practical)**

#### Course Objectives:

1. To provide the knowledge and understanding of various cognitive processes through classical theoretical frameworks, conceptual models and applications.
2. To understand how the higher cognitive functions form the basis of human functioning.
3. To enable students to think scientifically about behavior, mental processes and underlying cognitive mechanisms.
4. To enhance understanding of the research methods relevant to designing and analyzing research questions in human cognition.

#### Learning Outcomes:

Students will be able to:

1. Expand regarding various functions of human cognition.
2. Understand the basic and higher cognitive processes applied in daily lives.
3. Gain an in-depth understanding of the processes and types of memory.
4. Understand and analyze thinking, problem-solving and decision-making processes.
5. Identify observable behaviours that are used to understand cognitive processes.

#### Course Contents:

**Unit 1: Attention and Executive Processes:** Historical and Philosophical antecedent; Current Paradigms; Types and Mechanisms of Attention; Attention and the Brain; Executive Processing; Emerging issues in applied attention: Control and Switching of attention; Attention and Aging; Attention and Driving; Training of Attention

**(10 Hours)**

**Unit 2: Memory Processes:** Why do we need memory; Current Models and Directions; Organization of Long-Term Memory; Eyewitness Memory; Everyday Memory; False Memories; Aging and Memory; Incidental and Motivated Forgetting; Prospective Memory: Introduction and types; Enhancing Memory

**(10 Hours)**

**Unit 3: Language Processes:** Science of Language; Brain and Language; Development of language across lifespan; Language, culture and thought; Language and Technology; Multilingualism & Bilingualism: Myths and Benefits **(10 Hours)**

**Unit 4: Problem Solving and Decision Making:** Problem Solving: Strategies and Heuristics; Factors influencing Problem Solving; Decision Making: Heuristics, Risky Decision Making; Group Decision Making; Applications of Decision-Making Research: Overconfidence about Decisions; Reasons for Overconfidence. **(10 Hours)**

**Practicum:** At least 2 (Two) practicum based on the above units **(20 Hours)**

**Essential Readings:**

1. Baddley, A. (1997). *Human memory: Theory and Practice*. New York: Psychology Press. Harley.
2. Farmer, T. A., & Matlin, M. W. (2019). *Cognition*. John Wiley & Sons.
3. Kramer, A. F., Wiegmann, D. A., & Kirlik, A. (2006). *Attention From Theory to Practice*. New York: Oxford University Press.
4. Ludden, D. (2015). *The Psychology of Language: An Integrated Approach*. United States: Sage Publications.
5. Minda, J.P. (2015). *The Psychology of Thinking*. Thousand Oaks: Sage Publications.
6. Ranganath, C. (2024). *Why we remember: the science of memory and how it shapes us*. Faber & Faber: London.
7. Tulving, E. & Craik, F. I. M (2023). *The Oxford Handbook of Memory*. London: Oxford University Press.