Program	BS (4 Years)	Course Code	APSY-473	Credit Hours	2
Course Title	**Experimental Psychology**				

Course Introduction

This course is designed to provide students with knowledge and conceptual understanding of experimental psychology. The course will equip students with understanding of historical developments in the field of experimental psychology, psychophysical methods, and important areas including sensation and perception, learning and memory, cognitive processes and motivation.

Learning Outcomes

On the completion of the course, the students will be able to:

1. Upon completion of the course the student will be able to understand and implement principles of psychophysics, and different human processes including sensation, perception, learning etc for understanding of human behavior
2. To design research to test the laws and relationships through experiments

Course Contents

Introduction to Experimental Psychology
An overview of experimental psychology; Key elements in Experimental report writing

Psychophysics
Importance of psychophysics; Psychophysical methods; Theory of signal detection

Sensation
The five senses: vision, hearing and other senses; Psychophysics: Absolute threshold, signal detection theory, just noticeable differences and sensory adaptation; Methods of measurement

Perception
Definition of perception, relationship of perception and sensation, learning and socio cultural factors in perception; Perceptual organization, the Gestalt Laws of organization; Depth perception; perception of movement; Perceptual illusions. Perception of time

Cognitive processes/ Thinking
Reasoning & decision-making; Problem solving & creative thinking; Information processing, executive functioning, multi-tasking

Learning and Conditioning
Definition of learning, Difference between learning, instinctive behavior, habituation and sensitization; Classical conditioning: Important explanation in Pavlovian or Classical Conditioning; Factors in classical conditioning; theories of conditioning; Secondary conditioning, generalization, Operant conditioning: Thorndike's law of effect, the basis of operant conditioning: acquisition, nature and schedules of reinforcement, generalization and discrimination, extinction; Factors, theories; application of classical and operant conditioning

Memory
Defining memory, Sensory memory, short-term memory, long-term memory, measurement of memory and forgetting; Current Research on memory; Reconstruction of memory

Motivation
Leading Theories of motivation

Designing an Experiment

Textbooks and Reading Material

2.1 Books

- Boring, E. (2007). *History of experimental psychology.* India: Cosmo Publications
- Broadbent, D. E (1998). *Perception and communication*. (2nd ed.). London: Pergamon press.
- Carter, P. & Russell, K. (2012).*Ultimate IQ tests* (2nd ed.).USA: Viva Books
- *Chance*, *P*. (2003). *Learning and behavior* (5th ed.). Belmont, CA: Thomson Wadsworth.
- Goldstein, F. (1995). *Sensation and perception.* NY: McGraw Hill..
- Kimble, G. (1994). A new formula for behaviorism. *Psychological Review*, 1994, 101, 254-258.
- Leahay, J. (1998). *Learning and cognition*. New York: Willey series in psychology.
- Matlin, P. (1998). *Cognition*.UK: Routledge and Kagan Paul.
- Osgood, C. F. (1995). *Methods and theory in experimental psychology*. New York: Oxford. University Press.
- Postman, L. & Egan, J.P. (2007). *Experimental psychology: An introduction.* India: CBS Publishers & Distributors.
- Stevens, S. S. (1998). *Handbook of experimental psychology*. London: John Wiley.
- Watson, J. B. (1994). Reprint of psychology as behaviorist views it. *Psychological Review*, 101, 248-253.

2.2 Journal Articles/ Reports

- De Gelder, B., Kätsyri, J., & de Borst, A. W. (2018). Virtual reality and the new psychophysics. *British Journal of Psychology*, *109*(3), 421-426.
- Feest, U. (2021). Gestalt psychology, frontloading phenomenology, and psychophysics. *Synthese*, *198*(9), 2153-2173.
- Flach, J. M., & Warren, R. (2018). Active psychophysics: The relation between mind and what matters. In *Global perspectives on the ecology of human-machine systems* (pp. 189-209). CRC Press.
- Gaschler, R., Katsarava, M., & Kubik, V. (2020). Sensation and perception. *International Handbook of Psychology Learning and Teaching*, 1-26.
- Sartori, R., & Costantini, A. (2020). From sensation to cognition: a perception-based training intervention for the development of relational competences in young Italian apprentices. *European Journal of Training and Development*.
- Shiffrin, R. M. (2018). Short-term store: The basis for a memory system. In *Cognitive theory* (pp. 193-218). Psychology Press.
- Wang, Q. (2021). The cultural foundation of human memory. *Annual review of Psychology*, *72*, 151-179.

Note:- It is preferable to use latest available editions of books.

Teaching Learning Strategies

1. Lectures/Tutorials
2. Semester work
3. Class participation /Presentation
4. Assignments/Class Projects
5. Quizzes

Assessment

Sr. No.	Elements	Weightage	Details
1	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.

2	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.