Course Syllabus
Gyanmanjari Institute of Arts
Semester-4(B.A)

Subject: Physiological Psychology - BATPY14314

Type of course: Major (Core)

Prerequisite:

Before studying this syllabus, student requires basic knowledge of Basic Biology and General Psychology ,Introduction to Neuropsychology.

Rationale:

Physiological Psychology is fundamental to understanding the biological foundations of behavior, as it bridges psychology and biology to explore how the brain, nervous system, hormones, and other physiological processes influence our thoughts, emotions, and actions. By examining these physiological underpinnings, this field helps clarify the complex interactions between body and mind, offering insights into mental health, cognitive functions, and behavioral responses. Understanding physiological psychology is essential for those in psychology, as it provides a comprehensive view of human behavior that incorporates both biological and psychological perspectives.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks			Total Marks
				SEE	CCE		
CI	T	P	C		MSE	ALA	
4	4	0	4	100	30	70	200

Legends: *CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE-End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA-Active Learning Activities.*

4 Credits * 25 Marks = 100 Marks (each credit carries 25 Marks)
SEE 100 Marks will be converted in to 50 Marks
CCE 100 Marks will be converted in to 50 Marks
It is compulsory to pass in each individual component

Course Content:

Unit	Course content	Hrs	% Weightage
1	**Introduction to Physiological Psychology** ➢ Definition of Physiological Psychology ➢ Forms of Physiological Psychology ➢ Physiology, Psychology, and Physiological Psychology ➢ Area of work of Physiological Psychology ➢ Approaches to study Physiological Psychology ➢ Importance of study Physiological Psychology	15	25
2	**Physiological Base of Emotion** ➢ Physiological Changes of Emotional Time ➢ Lie Detector ➢ Emotion and Central Nervous System ➢ Emotion and Autonomous Nervous System ➢ Endocrine Gland and Emotion ➢ Principles of Emotion	15	25
3	**Physiological Baseof Motivation** ➢ Homeostasis ➢ Motivation of Hunger ➢ Motivation of Thirst ➢ Sexual motivation ➢ Motivation of sleep and wakefulness ➢ Motivation of pleasure and pain	15	25
4	**Internal Environment** ➢ Metabolic Mechinary ➢ Enzymes ➢ Hormones ➢ Exocrine Glands ➢ Endocrine Glands ➢ Vitamins ➢ Genes	15	25

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	**Hunger and Thirst Experiment** Students have to explore the physiological drives behind hunger and thirst by tracking their hunger and thirst levels throughout the week. They will analyze the patterns using principles of homeostasis and upload a comparative psychological analysis submit a report on the GMIU web portal.	10
2	**Innovative Discussion on the Physiopsychological Aspects of Behavior** Students have to discuss the roles of the hypothalamus, hormones like ghrelin, and external cues that impact hunger and thirst motivation. They will then upload their conclusions to the GMIU web portal	10
3	**Gene-Hormone Case Study** Students have to explore the interaction between genes and hormones in physiological processes. They will present case studies where genetic factors and hormonal imbalances (e.g., thyroid issues, testosterone levels) impact behavior. Students will analyze these cases and suggest possible physiological interventions. Through this project, students will gain an understanding of how genetics and the internal environment affect emotional regulation and motivation. They will upload the results of this research work to the GMIU web portal	10
4	**Neurotransmitter Pathways Mapping Project** Students have to create detailed diagrams of key neurotransmitter pathways (e.g., dopamine, serotonin) and explain how they influence behaviors such as mood, motivation, and addiction. Students will enhance their understanding of the biological basis of psychological functions by linking neurotransmitter dysfunction to specific psychological disorders and therapeutic approaches. then upload their research conclusions to the GMIU web portal.	10
5	**Neuropsychology of Art and Creativity** Students have to explore the neuroscience behind creativity and visual perception. They will analyze famous cases (e.g., artist Chuck Close) and investigate how brain injuries influence artistic abilities. Students will create artwork inspired by neurological conditions, then discuss how specific brain regions affect creative processes. Finally, they will upload their research findings to the GMIU Portal.	10
6	**Brain Injury Recovery Research Review** Students will analyze a set of case studies on patients recovering from brain injuries. They will create recovery timelines, noting rehabilitation methods,	10

	neural adaptations, and factors influencing recovery rates. Through this activity, students will develop an understanding of brain plasticity and the rehabilitation process. Finally, they will upload their research conclusions to the GMIU Portal.	
7	**Attendance**	10
Total		70

Suggested Specification table with Marks (Theory): 100

Distribution of Theory Marks (**Revised Bloom's Taxonomy**)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage %	40%	40%	20%	-	-	-

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcome:

After learning the course the students should be able to:	
CO1	Applying Physiological Psychology Approaches
CO2	Critical Examination of Physiological Changes
CO3	Exploring Homeostasis
CO4	Analyzing and Evaluating Motivation & Emotion

Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

Reference Books:

[1] Wundt, W. (1948). Principles of physiological psychology, 1873. In W. Dennis (Ed.), Readings in the history of psychology (pp. 248–250). Appleton-Century-Crofts. https://doi.org/10.1037/11304-029

[2] Grossman, S. P. (1967). A textbook of physiological psychology. John Wiley.

[3] Morgan, C. T. (1943). Physiological psychology. McGraw-Hill.

[4] Freeman, G. L. (1934). Introduction to physiological psychology. Ronald Press.

[5] Ladd, G. T. (1890). Introduction: Nature of physiological psychology. In G. T. Ladd, Outlines of physiological psychology: A text-book of mental science for academies and colleges (7th ed., pp. 1–10). Charles Scribner's Sons. https://doi.org/10.1037/12984-001