

PSYC 10 Course Outline as of Fall 2026**CATALOG INFORMATION**

Dept and Nbr: PSYC 10 Title: INTRO TO BIO PSYCHOLOGY

Full Title: Introduction to Biological Psychology

Last Reviewed: 10/27/2025

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: PSYCH 10

Catalog Description:

In this course, students will be introduced to the scientific study of the biological basis of behavior and its fundamental role in the neurosciences. Student will explore core concepts in the biological sciences through examination of the neuroanatomical, physiological, genetic, and evolutionary foundations of behavior and mental processes. Topics include the central nervous system function and its relation to sensory and perceptual processes, psychoactive drug effects, sleep and dreaming, learning, memory, communication, and abnormal behavior. The course also notes historical scientific contributions and biases, as well as current research practices in the scientific studying of brain-behavior relationships. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research.

Prerequisites/Corequisites:

Course Completion of PSYC C1000

Recommended Preparation:

Eligibility for ENGL C1000 or equivalent

Limits on Enrollment:**Schedule of Classes Information:**

Description: In this course, students will be introduced to the scientific study of the biological basis of behavior and its fundamental role in the neurosciences. Student will explore core concepts in the biological sciences through examination of the neuroanatomical, physiological, genetic, and evolutionary foundations of behavior and mental processes. Topics include the central nervous system function and its relation to sensory and perceptual processes, psychoactive drug effects, sleep and dreaming, learning, memory, communication, and abnormal behavior. The course also notes historical scientific contributions and biases, as well as current research practices in the scientific studying of brain-behavior relationships. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research. (Grade Only)

Prerequisites/Corequisites: Course Completion of PSYC C1000

Recommended: Eligibility for ENGL C1000 or equivalent

Limits on Enrollment:

Transfer Credit: CSU;UC.

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
	D	Social and Behavioral Sciences	Fall 2025
	L4	Social and Behavioral Sciences	
	L5	Physical and Biological Sciences	
CSU GE:	Transfer Area	Effective:	Inactive:
	D	Social and Behavioral Sciences	Fall 2018
	D	Social Science	Fall 2018
IGETC:	Transfer Area	Effective:	Inactive:
	4	Social and Behavioral Science	Fall 2018
	4I	Psychology	
CSU Transfer:	Transferable	Effective:	Fall 2018
		Inactive:	
UC Transfer:	Transferable	Effective:	Fall 2018
		Inactive:	

CID:

CID Descriptor: PSY 150 Introduction to Biological Psychology
 SRJC Equivalent Course(s): PSYC10 OR PSYC10 AND PSYC10L
 CID Descriptor: PSY 150 Introduction to Biological Psychology
 SRJC Equivalent Course(s): PSYC10 OR PSYC10 AND PSYC10L

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:

At the conclusion of this course, the student should be able to:

1. Apply principles and reasoning to the study of brain-behavior relationships.
2. Distinguish the structure and physiology of the nervous system at the anatomical, cellular, and molecular levels and relate this structure and physiology to behaviors and psychological disorders.

3. Critically evaluate the major issues in human evolution, genetics, and behavioral development that underlie the “biology of behavior.”

Objectives:

At the conclusion of this course, the student should be able to:

1. Explain the scientific method and evaluate its application in published biopsychological research.
2. Define and use biological, physiological, and psychological terminology of the neurosciences.
3. Analyze and critically evaluate scientific methodologies used in the study of biopsychological phenomena in humans and non-humans.
4. Explain the general anatomy and physiology of the nervous system and its relationship to behavior.
5. Describe neural conduction and synaptic transmission (electrochemical communication), including the major neurotransmitters and their impact on behavior.
6. Discuss the role of the neuroendocrine system as it relates to behavior.
7. Summarize the core concepts in human evolution, genetics, and behavioral development that underlie the biology of behavior.
8. Compare and contrast different sensory systems and their biological underpinnings.
9. Describe how different classes of psychoactive drugs affect brain function and behavior and discuss effective strategies for treating drug abuse.
10. Explain the neural systems involved in formation of memories and how brain plasticity may aid in recovery from brain injury.
11. Detail research investigating biological underpinnings of the biological clock, sleep, and sleep disorders and hypotheses related to consciousness.
12. Synthesize how the structure and function of the brain is related to cognition.
13. Summarize and critique current practices in categorizing psychological disorders and evidence-based approaches to treatment of neurological and psychiatric disorders.

Topics and Scope:

I. Science and the Scientific Method

- A. Science and the scientific process
- B. Scientific Literacy: Science versus pseudoscience
- C. Assessment of the quality of scientific research
- D. The scientific method
 1. Experimental design
 2. Non-experiments
 3. Hypothesis testing
 4. Biopsychological Phenomena

II. The Biological Foundations of Behavior

- A. Perspectives on Brain and Behavior
- B. Biological Psychology: An Integrative Field of Study
- C. Evolution of Brain and Behavior

III. Research Methods

- A. Measuring and Manipulating Brain and Behavior
- B. Chemical and Genetic Measures of Brain and Behavior
- C. Ethical Considerations
- D. Current and Historical Contributions, Limitations, and Biases of Research in Neuroscience

IV. The Nervous System's Functional Anatomy

- A. Nervous System Structure
- B. Evolution of the Nervous System

- C. Brain Structures and Functions
- V. Functional Units of Nervous System
 - A. Cells of Nervous System
 - B. Structure of Neurons
 - C. Neural Electrochemical Communication
 - D. Structure of Synapses
 - E. Excitatory and Inhibitory Messages
 - F. Neurotransmitter Systems and Behavior
 - G. Adaptation of Synapses
- VI. Neuroendocrine System
 - A. Homeostasis
 - B. Stress Response
 - C. Temperature
 - D. Ingestive Behaviors
- VII. Genetics, Development, and Plasticity
 - A. Genetics and the Evolution of Behavior
 - B. Development of the Brain
 - C. Epigenetics
- VIII. Sensation and Perception
 - A. The Visual System
 - B. The Physical Senses
 - C. The Chemical Senses
- IX. Influence of Drugs on the Brain and Behavior
 - A. Principles of Psychopharmacology
 - B. Psychoactive Drugs
 - C. Responses to Drugs and Treating Drug Abuse
- X. Learning and Memory
 - A. Neural Systems Underlying Explicit and Implicit Memories
 - B. Structural Basis of Brain Plasticity
 - C. Recovery from Brain Injury
- XI. Sleep and the Brain
 - A. Neural Basis of the Biological Clock
 - B. Biological Bases of Sleep and Sleep Disorders
 - C. Sleep and Consciousness
- XII. The Nature of Thought and the Brain
 - A. Cognition and Association Cortices
 - B. Lateralization and Thought
 - C. Intelligence and Consciousness
- XIII. Biological Bases of Psychological Disorders
 - A. Classifying and Treating Brain and Behavioral Disorders
 - B. Understanding and Treating Neurological Disorders
 - C. Understanding and Treating Psychiatric Disorders

Assignment:

1. Read approximately 35-60 pages per week and discuss assigned material in the textbook and supplements
2. Complete writing assignments (minimum of 1250 words, total) such as:
 - a. Response
 - s
 - b. Research papers

c. Summaries

3. Quiz(zes), exams (2-3) and one final exam or project

4. Oral presentations and/or group projects may be assigned

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Writing assignments

Writing
10 - 25%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None

Problem solving
0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations
0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Quizzes, exams and one final exam or project

Exams
65 - 90%

Other: Includes any assessment tools that do not logically fit into the above categories.

Oral presentations and/or group projects (if assigned)

Other Category
0 - 10%

Representative Textbooks and Materials:

Biological Psychology. 14th ed. Kalat, James. Cengage Learning. 2024.

Physiology of Behavior. 13th ed. Carlson, Neil and Birkett, Melissa. Pearson. 2021.

An Introduction to Brain and Behavior. 7th ed. Kolb, Bryan and Whishaw, Ian and Teskey, G. Worth Publishers. 2023.

Biopsychology. 11th ed. Pinel, John. Pearson. 2021.