



# C-ID Descriptor

## Introduction to Biological Psychology

### Descriptor Details

- **Descriptor Title:** Introduction to Biological Psychology
- **C-ID Number:** 150
- **Units:** 3.0
- **Date of Last Revision:** 10/12/2017 11:44:10 PM GMT+0000

### General Description

This course introduces the scientific study of the biological bases of behavior and its fundamental role in the neurosciences. Physiological, hormonal, and neurochemical mechanisms, and brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, learning, memory, and psychological disorders will be addressed. The course also notes historical scientific contributions and current research principles for studying brain-behavior relationships and mental processes. Ethical standards for human and animal research are discussed in the context of both invasive and non-invasive experimental research.

### Prerequisites

Introductory Psychology (C-ID PSY 110)

### Corequisites

No information provided

### Advisories

English, one level below transfer (i.e., eligibility for English composition (C-ID ENGL 100)) and reading (a course with an exiting skill of ability to read a college level text)

## **Content**

Biological Psychology as a Course of Study

Genes and Behavior and Human Evolution

Research Methods and Ethical Considerations of Biological Psychology and Neuroscience

- Invasive vs Non-invasive
- Research Ethics Applied to Animals and Humans

The Nervous System:

- Anatomy
- Development and Plasticity
- Communication within the Nervous System

The Effects of Psychoactive Drugs

Mechanisms of Perception, Conscious Awareness, and Attention

Wakefulness and Sleep

Ingestive Behavior

Hormones, Sexual Development, and Sexual Behavior

Learning and Memory

Emotion and Stress

Biological Bases of Psychological Disorders, Including Affective Disorders and Schizophrenia

## **Lab Activities**

No information provided

## **Objectives**

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

1. Define and use basic biological, physiological, and psychological terminology of the neurosciences .
2. Differentiate among specialty areas within Biological Psychology and the related disciplines within the Neurosciences and the types of research that characterize the biopsychological approach.
3. Summarize the major issues in human evolution, genetics, and behavioral development that underlie the “biology of behavior.”
4. Generate and explicate concrete examples of invasive vs. noninvasive research methods and the general principles of research ethics for the study of animals and human beings, including the research safeguards and the peer-review process in science.
5. Explain scientific approaches used in methodologies for the study of brain-behavior relationships.
6. Explain the general anatomy and physiology of the nervous system and its relationship to behavior.
7. Describe neural conduction and synaptic transmission.
8. Discuss the role of the neuroendocrine system as it relates to behavior.
9. Exemplify with concrete examples various brain-behavior relationships including ingestive behavior, sexual behavior, sleep, learning, memory, stress, drug dependence, and psychiatric disorders such as affective disorders and schizophrenia.

### **Evaluation Methods**

May include:

Exams

Quizzes

Written Assignments

Projects

### **Textbooks**

Carlson, N, Foundations of Behavioral Neuroscience (Pearson)

Kalat, J.W. *Biological Psychology* (Wadsworth)

Pinel, J.P.J. *Biopsychology* (Pearson)