Glendale College

Course Outline of Record Report

Revision - May 2023

PSYCH203 : Physiological Psychology Lab

General Information

Author:	• Elizabeth Kronbeck
Course Code (CB01) :	PSYCH203
Course Title (CB02) :	Physiological Psychology Lab
Department:	PSYCH
Proposal Start:	Fall 2023
TOP Code (CB03) :	(2001.00) Psychology, General
CIP Code:	(42.0101) Psychology, General.
SAM Code (CB09) :	Non-Occupational
Distance Education Approved:	Yes
Will this course be taught asynchronously?:	No
Course Control Number (CB00) :	CCC000532475
Curriculum Committee Approval Date:	05/10/2023
Board of Trustees Approval Date:	
Last Cyclical Review Date:	10/01/2018
Course Description and Course Note:	PSYCH 203 is an introductory science laboratory course that surveys structure and function of the nervous system, neurological correlates of behavior, psychophysiological research methodology, and scientific research investigation. Main topics include neuroanatomy, behavioral neuroscience, consciousness, emotion, stress, sensation and perception of vision, audition, touch, olfaction, and gustation.
Justification:	Coding/Category Change
Academic Career:	• Credit

Academic Senate Discipline

Primary Discipline:	• Psychology

Transferability & Gen. Ed. Options

General Education Status (CB25)

Not Applicable

Transferability

Transferable to both UC and CSU

Transferability Status

Approved

IGETC Area	Area	Status	Approval Date	Comparable Course
5C-Science Laboratory	Science Laboratory	Approved	09/04/2012	No Comparable Course defined.

CSU GE-Breadth Area	Area	Status	Approval Date	Comparable Course
B3-Laboratory Activity	Laboratory Activity	Approved	09/04/2012	No Comparable Course defined.

Units and Hours

Summary

Minimum Credit Units (CB07)	1
Maximum Credit Units (CB06)	1
Total Course In-Class (Contact) Hours	54
Total Course Out-of-Class Hours	0
Total Student Learning Hours	54

Credit / Non-Credit Options

Course Type (CB04)

Credit - Degree Applicable

Noncredit Course Category (CB22)

Credit Course.

Noncredit Special Characteristics

No Value

Course Classification Code (CB11)

Credit Course.

Funding Agency Category (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10)

☐ Variable Credit Course

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	0	0
Laboratory Hours	3	0
Studio Hours	0	0

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	0
Course In-Class (Contact) Hours	
Lecture	0
Laboratory	54
Studio	0
Total	54

Course Out-of-Class Hours

Lecture	0
Laboratory	0
Studio	0
Total	0

Time Commitment Notes for Students

No value

Pre-requisites, Co-requisites, Anti-requisites and Advisories

Co-Requisite

PSYCH103 - Physiological Psychology

(PSYCH 103 may be taken concurrently)

Objectives

- Define and use basic biological, physiological, and psychological terminology of the neurosciences.
- Differentiate among specialty areas within biological psychology and the related disciplines within the neurosciences and the types of research that characterize the biopsychological approach.
- Summarize the major issues in human evolution, genetics, and behavioral development that underlie the "biology of behavior."
- 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.
- Explain scientific approaches used in methodologies for the study of brain-behavior relationships.
- Explain the general anatomy and physiology of the nervous system and its relationship to behavior.
- Describe neural conduction and synaptic transmission.
- Discuss the role of the neuroendocrine system as it relates to behavior.
- Summarize examples of various brain-behavior relationships including ingestive behavior, motivation, sexual behavior, sleep, learning, memory, stress, drug dependence, and psychiatric disorders such as affective disorders and schizophrenia.

OR

Prerequisite

PSYCH103 - Physiological Psychology

Objectives

- Define and use basic biological, physiological, and psychological terminology of the neurosciences.
- Differentiate among specialty areas within biological psychology and the related disciplines within the neurosciences and the types of research that characterize the biopsychological approach.
- Summarize the major issues in human evolution, genetics, and behavioral development that underlie the "biology of behavior."
- 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.
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Entry Standards

Entry Standards

No value

Specifications

Methods of Instruction

Methods of Instruction	Lecture
Methods of Instruction	Laboratory
Methods of Instruction	Discussion
Methods of Instruction	Multimedia
Methods of Instruction	Collaborative Learning
Methods of Instruction	Demonstrations
Methods of Instruction	Field Activites (Trips)
Methods of Instruction	Guest Speakers
Methods of Instruction	Presentations

Out of Class Assignments

- Homework assignment (e.g. diagram and label facial muscles recorded for electromyography)
- Short papers or essays demonstrating application of concepts and critical thinking skills (e.g. written critique of a journal article's conclusions)

- Research paper (e.g. final project report regarding student's experimental hypothesis, rationale, methods, results, and interpretation)
- Individual projects (e.g. design experiment to compare levels of stress hormone)
- Group project (e.g. present results on experiment regarding electrodermal activation)

Methods of Evaluation	Rationale
Activity (answering journal prompt, group activity)	Class participation in individual and group activities
Exam/Quiz/Test	Practical examination
Presentation (group or individual)	Oral presentation
Exam/Quiz/Test	Examinations requiring demonstration of course exit standards
Other	Peer review or critique of student work
Evaluation	Instructor evaluation of in-class assignments
Presentation (group or individual)	Instructor evaluation of in-class presentations
Evaluation	Evaluation of technical skills

Textbooks

Author	Title	Publisher	Date	ISBN
Pinel, John	Biopsychology	Pearson	2018	978-0134203690

Other Instructional Materials (i.e. OER, handouts)

No Value

Learning Outcomes and Objectives

Course Objectives

Apply procedures of psychophysiological research methods.

Test hypotheses regarding psychophysiological mechanisms that underlie behavior by designing experiments and evaluating the results.

Analyze the neurological correlates of behavior.

SLOs

Explain the structure and function of the nervous system. Expected Outcome Performance: 70.0

SOC S Social Sciences	Demonstrate critical thinking skills and a basic understanding of the complex interrelationships between human kind and the biophysical environment

Assess and critically analyze procedures of psychophysiological research methods. Expected Outcome Performance: 70.0

Additional SLO Information

Does this proposal include revisions that might improve student attainment of course learning outcomes?

No Value

Is this proposal submitted in response to learning outcomes assessment data?

No Value

If yes was selected in either of the above questions for learning outcomes, explain and attach evidence of discussions about learning outcomes.

No Value

SLO Evidence

No Value

Course Content

Lecture Content

No value

Laboratory/Studio Content

The Research Process (3)
- Research articles and scientific journals
- Databases and literature searches
- Scientific writing and manuscript fundamentals

Scientific Method (3)
- Research methods: descriptive vs. experimental studies
- Independent, dependent, and confounding variables
- Hypotheses testing
- Statistical inference

Anatomy and Physiology of the Nervous System (8)
- Structure, function, and neurotransmitters of the nervous system
- Neural communication
- Neuropsychological assessment

Psychophysiological Techniques (10)
- Electroencephalogram
- Event-related potentials
- Electro-oculogram
- Electromyogram and startle response
- Skin response
- Heart rate

Consciousness (6)
- Sleep and wakefulness
- Psychophysiological correlates of states of consciousness

Emotion and Stress (6)
- The hormone system

- Autonomic nervous system

Sensation and Perception: Vision and Audition (2)

Sensation and Perception: Touch, Olfaction, and Gustation (2)

Learning and Memory (5)
- Brain structures and memory
- Biochemical mechanisms in memory
- Memory consolidation

Psychiatric Disorders (5)
- Mood disorders
- Schizophrenia
- Anxiety disorders

Current Topics in Behavioral Neuroscience (4)
- Neuroscience of decision-making
- Regeneration of neurons
- Infections as a cause of Alzheimers

Total Hours = 54