

# COURSE OUTLINE

## OXNARD COLLEGE

- I. Course Identification and Justification:
- A. Proposed course id: PSY R105  
Banner title: Intro to Physiological Psych  
Full title: Introduction to Physiological Psychology  
  
Previous course id: PSY R105  
Banner title: Intro to Physiological Psych  
Full title: Introduction to Physiological Psychology
  - B. Reason(s) course is offered:  
This is a core course in the AA-T in Psychology and an option in the required courses in the AA in Psychology. This course fulfills general education requirements in Life/Biological Science areas for Oxnard College's local GE pattern, CSU GE-Breadth and IGETC.
  - C. Reason(s) for current outline revision:  
5 year review, update textbooks
  - D. C-ID:
    - 1. C-ID Descriptor: PSY 150
    - 2. C-ID Status: Approved
  - E. Co-listed as:  
*Current:* None  
*Previous:*
- II. Catalog Information:
- A. Units:  
*Current:* 3.00  
*Previous:* 3.00
  - B. Course Hours:
    - 1. In-Class Contact Hours:  
Lecture: 52.5    Activity: 0    Lab: 0
    - 2. Total In-Class Contact Hours: 52.5
    - 3. Total Outside-of-Class Hours: 105
    - 4. Total Student Learning Hours: 157.5
  - C. Prerequisites, Corequisites, Advisories, and Limitations on Enrollment:
    - 1. Prerequisites  
*Current:*  
PSY R101: General Psychology  
  
*Previous:*  
PSY R101: General Psychology

2. Corequisites

*Current:*

*Previous:*

3. Advisories:

*Current:*

*Previous:*

4. Limitations on Enrollment:

*Current:*

*Previous:*

D. Catalog description:

*Current:*

The course provides exploration of physiological bases of behavior. Topics include: neural impulses and sensory processes, neural basis of reinforcement, electrical stimulation of the brain, memory, learning, emotion, biofeedback, split-brain studies, and research on right and left hemispheres. Emphasis is on current research findings as well as ethical standards and implications.

*Previous, if different:*

E.

Fees:

*Current:* \$ None

*Previous, if different:* \$

F.

Field trips:

*Current:*

Will be required: [ ]

May be required: [X]

Will not be required: [ ]

*Previous, if different:*

Will be required: [ ]

May be required: [ ]

Will not be required: [ ]

G.

Repeatability:

*Current:*

A - Not designed as repeatable

*Previous:*

A - Not designed as repeatable

H.

Credit basis:

*Current:*

Letter Graded Only [X]

Pass/No Pass [ ]

Student Option [ ]

*Previous, if different:*

Letter Graded Only [ ]

Pass/No Pass [ ]

Student Option [ ]

- I. Credit by exam:  
*Current:*  
Petitions may be granted: [ ]  
Petitions will not be granted: [X]

*Previous, if different:*  
Petitions may be granted: [ ]  
Petitions will not be granted: [ ]

III. Course Objectives:

Upon successful completion of this course, the student should be able to:

- A. Define basic biological, physiological and psychological terms.
- B. Summarize primary concepts related to human evolution, genetics, behavior, and the "biology of behavior"
- C. Explain nerve cells and nerve impulses
- D. Describe neural conduction and synaptic transmission.
- E. Explain general anatomy and its relation to the nervous system and behavior
- F. Describe scientific approaches and methods applied to the study of brain and behavior.
- G. Define plasticity of the brain
- H. Explain vision processes in psychology
  - I. Explain the other sensory systems
- J. Define reproductive behaviors
- K. Explain the brain-behavior relationship between learning and memory, motivation, stress, sleep, among other physiologically-influenced behavior/s
- L. Define lateralization of the brain
- M. Summarize psychological disorders such as affective disorders and schizophrenia
- N. Identify examples of invasive and non-invasive research methods and explain principles of ethics in the study of humans and animals

IV. Student Learning Outcomes:

- A. Students will be able to identify parts of the brain.
- B. Students will be able to identify parts of the nervous system.
- C. Students will be able to describe the functions of the frontal lobe.
- D. Students will be able to identify technology used to examine and record functions of the brain (functional magnetic resonance imaging, etc.)
- E. Students will identify mental illnesses as a result of irregularities in the brain.

V. Course Content:

Topics to be covered include, but are not limited to:

- A. Biological Psychology as a Course of Study
- B. Genes and Behavior and Human Evolution
- C. Research Methods and Ethical Considerations of Biological Psychology and Neuroscience
  - 1. Invasive vs Non-invasive
  - 2. Research Ethics Applied to Animals and Humans
- D. The Nervous System:
  - 1. Anatomy
  - 2. Development and Plasticity
  - 3. Communication within the Nervous System
- E. The Effects of Psychoactive Drugs

- F. Mechanisms of Perception, Conscious Awareness, and Attention, Wakefulness and Sleep
- G. Motivation
- H. Ingestive Behavior
- I. Hormones, Sexual Development, and Sexual Behavior
- J. Learning and Memory
- K. Emotion and Stress
- L. Biological Bases of Psychological Disorders, Including Affective Disorders and Schizophrenia

VI. Lab Content:  
None

VII. Methods of Instruction:

Methods may include, but are not limited to:

- A. Lecture about the biological explanations of behavior
- B. PowerPoint about the communication at synapses
- C. Film about the use of animals in research
- D. Guest lecture about the genetics of behavior
- E. Small group discussion about the development and plasticity of the brain
- F. Use of models of the eye
- G. Discussion of the Diagnostic and Statistical Manual of the American Psychiatric Association

VIII. Methods of Evaluation and Assignments:

- A. Methods of evaluation for degree-applicable courses:  
Essays    
Problem-Solving Assignments (Examples: Math-like problems, diagnosis & repair) [  ]   
Physical Skills Demonstrations (Examples: Performing arts, equipment operation) [  ]

For any course, if "Essays" above is not checked, explain why.

- B. Typical graded assignments (methods of evaluation):
  1. Research paper about physiological determinants of behavior, for example a research paper about the effects of split brain surgery on a person's behavior and mental processes graded on a 100 point scale.
  2. Midterms (essay) about physiological determinants of behavior, for example about synapses and their effects on the brain and/or behavior graded on a 100 point scale
  3. Class presentation of research paper about physiological determinants of behavior; students graded on research and presentation, for example, concerning gene behavior and human evolution for ten minutes, graded on content and ten minutes.
  4. Final exam (essay) about physiological determinants of behavior, including research methods and ethical considerations of biological psychology and neuroscience graded on a 100 point scale
- C. Typical outside of classroom assignments:
  1. Reading

- a. Chapters from the designated textbook on topics related to physiological determinants of psychology, such as "Anatomy and Physiology of the Nervous System and its Relation to Behavior"
  - b. Selected periodicals about physiological psychology, e.g., Journal of Orthopsychiatry, for examples, about synapses in the brain; Journal of Neuropsychology on, for example, "Scientific Methodologies Applied to Brain-Behavior Relationships"
  - c. Selections from the Diagnostic and Statistical Manual of the American Psychiatric Association on such concrete behaviors as: ingestive behavior; sexual behavior; drug dependence; etc.
2. Writing
- a. Research paper about physiological determinants of behavior, such as "The relation of Vision to other Sensory Systems" (in APA format)
  - b. Midterm essay , for example, on "Research Ethics and Safeguards Related to the Study of Humans and Animals"
  - c. Narrative/self-reporting/observation on: sleep, memory, motivation, etc.
  - d. Write a short essay defining and using basic biological, physiological, and psychological terminology of the neurosciences.
  - e. Create a chart differentiating among specialty areas within Biological Psychology and the related disciplines within the Neurosciences and the types of research that characterize the biopsychological approach.
  - f. In an essay, summarize the major issues in human evolution, genetics, and behavioral development that underlie the "biology of behavior."
  - g. Develop a class presentation to 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.
  - h. Create a poster to explain scientific approaches used in methodologies for the study of brain-behavior relationships.
  - i. Make a model to explain the general anatomy and physiology of the nervous system and its relationship to behavior.
  - j. Create a lesson for other students to describe neural conduction and synaptic transmission.
  - k. Develop a discussion the role of the neuroendocrine system as it relates to behavior.
  - l. Prepare to teach other students to exemplify with concrete examples 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.
3. Other
- a. Internet research, such as, a publisher site and/or research institution page on the functions of the brain and their association/s with behavior

IX. Textbooks and Instructional Materials:

- A. Textbooks/Resources:
  - 1. Kalat, J.W (2015). *Biological Psychology* United States Thompson.
  - 2. Pinel, J.P (2017). *Biopsychology* Pearson .
  - 3. American Psychiatric Association, (latest edition) Diagnostic and Statistical Manual, Washington, DC, American Psychiatric Association
  - 4. Journal of Orthopsychiatry
- B. Other instructional materials:

- X. Minimum Qualifications and Additional Certifications:
  - A. Minimum qualifications:
    - 1. Psychology (Masters Required)
  - B. Additional certifications:
    - 1. Description of certification requirement:
    - 2. Name of statute, regulation, or licensing/certification organization requiring this certification:

- XI. Approval Dates
  - Curriculum Committee Approval Date: 10/24/2018
  - Board of Trustees Approval Date: 10/24/2018
  - State Approval Date:
  - Catalog Start Date: Fall 2019

- XII. Distance Learning Appendix
  - A. Methods of Instruction
    - Methods may include, but are not limited to:
      - 1. District approved LMS would be used to achieve regularly scheduled contact hours, orientation, testing sessions, and to monitor and moderate discussion sessions. The required attendance of specifically scheduled participation in asynchronous discussion, objective exams and/or completion of online writing assignments would be comparable to the traditional classroom contact.
  - B. Information Transfer
    - Methods may include, but are not limited to:
      - 1. Collaborative projects: group blogs, wikis
      - 2. Course announcements
      - 3. Discussion boards
      - 4. E-Mail
      - 5. Instructor-provided online materials
      - 6. Lectures (recorded/streaming)
      - 7. Messaging via the LMS
      - 8. Modules on the LMS
      - 9. Personalized feedback
      - 10. Phone/voicemail