Number: PSYC G250  TITLE: Psychobiology

ORIGINATOR: Steven Isonio  EFF TERM: Fall 2013
FORMERLY KNOWN AS:  DATE OF OUTLINE/REVIEW: 11-20-2012
CROSS LISTED COURSE: TOP NO: 2001.00

CID: PSY 150

SEMESTER UNITS: 3.0  HRS LEC: 54.0  HRS LAB: 0.0  HRS OTHER: 0.0
CONTACT HRS TOTAL: 54.0  STUDY NON-CONTACT HRS RECOMMENDED: 108.0

CATALOG DESCRIPTION:
Recommended for transfer students to develop an appreciation of the psychological, biochemical and genetic factors that affect behavior. This course can give a foundation for further studies in developmental, learning, personality and motivational psychology. C-ID PSY 150

JUSTIFICATION FOR COURSE:

PREREQUISITES:
- PSYC G100: Introduction To Psychology with a minimum grade of C or better

COREQUISITES:

ADVISORIES:

ASSIGNED DISCIPLINES:
- Psychology

MATERIAL FEE: Yes [ ] No [X] Amount: $0.00

CREDIT STATUS: Noncredit [ ] Credit - Degree Applicable [X] Credit - Not Degree Applicable [ ]

GRADING POLICY: Pass/No Pass [X] Standard Letter [X] Not Graded [ ] Satisfactory Progress [ ]

OPEN ENTRY/OPEN EXIT: Yes [ ] No [X]

TRANSFER STATUS: CSU Transferable[ ] UC/CSU Transferable [X] Not Transferable[ ]

BASIC SKILLS STATUS: Yes [ ] No [X]  LEVELS BELOW TRANSFER: Not Applicable

CALIFORNIA CLASSIFICATION CODES: Y - Not Applicable

NON CREDIT COURSE CATEGORY: Y - Not applicable, Credit Course

OCCUPATIONAL (SAM) CODE: E

REPEATABLE ACCORDING TO STATE GUIDELINES: No [X] Yes [ ] NUMBER REPEATS:

REQUIRED FOR DEGREE OR CERTIFICATE: No [ ] Yes [X]
Associate in Arts: Liberal Arts: Emphasis in Social Behavior and Self-Development(Associate in Arts)
Associate of Arts: Liberal Arts: Emphasis in Social and Behavioral Sciences(Associate in Arts)
Liberal Arts: Emphasis in Science(Associate in Arts)
Psychology(Associate in Arts for Transfer)
Psychology(Associate in Arts)

GE AND TRANSFER REQUIREMENTS MET:
IGETC Area 4: Social and Behavioral Sciences
- 4I: Psychology
IGETC Area 5: Physical and Biological Sciences
- 5B: Biological Science
COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:

1. describe the major subdivisions of the nervous system, peripheral nervous system, and the autonomic nervous system and the general function of each system subdivision.
2. describe the major structural features and functions of neurons.
3. explain key characteristics of action potentials: ionic movements, changes in membrane potential, absolute and relative refractory periods, and the All-or-None Law.
4. distinguish the major classifications and groups of neurotransmitters.
5. contrast agonist and antagonist drugs and describe how various drugs act as agonists and antagonists at various neurotransmitter receptors.
6. describe techniques used to image the brain and the type of information provided by each technique.
7. describe experimental designs that are important for allowing investigators to draw meaningful conclusion from experimental studies of the brain.
8. describe several biological explanations for major depressive disorder anxiety disorders, and schizophrenia and evidence to support each hypothesis.

COURSE OBJECTIVES:

1. Define and use basic terminology of the neurosciences.
2. Differentiate among specialty areas within Biological Psychology and the related disciplines in the neurosciences, as well as the types of research that characterize the biopsychological approach.
3. Summarize major issues related to human evolution, genetics, an development that underlie the biology of behavior.
4. Describe major research methods used by biological psychologists and related ethical considerations.
5. Explain the overall structure and function of the nervous system and its relationship to behavior.
6. Describe the processes of neural conduction and synaptic transmission.
7. Discuss the role of the neuroendocrine system as it relates to behavior.
8. Describe and give examples of the biopsychological factors related to ingestive behavior, learning and memory, motivation, sleep, sexual behavior, drug dependence, and psychiatric disorders such as anxiety disorders, affective disorders, and schizophrenia.

COURSE CONTENT:

LECTURE CONTENT:

A. The Nature of Biological Psychology
   1. Origins; philosophical roots
   2. Nature and Nurture; Genes and behavior
B. Methods and Ethics of Research
   1. Research and Theory
   2. Ethical considerations
C. Neural Foundations
   1. Structure and function of nerve cells
   2. Organization of the nervous system
   3. Development and change in the nervous system; plasticity
D. Motivation and Emotion
   1. Drugs, addiction and reward
Regulation of internal states
3. Ingestion
4. Biology of sex and gender
5. Emotion, stress and health

E. Interacting with the world
1. Hearing and language
2. Vision
3. Body senses and movement

F. Complex behavior
1. Learning and memory
2. Intelligence and cognition
3. Sleep and consciousness

G. Psychological disorders
1. Affective disorders, schizophrenia, anxiety disorders
2. Biomedical interventions

METHODS OF INSTRUCTION:

A. Lecture:
B. Online:

INSTRUCTIONAL TECHNIQUES:

COURSE ASSIGNMENTS:

Reading Assignments
Readings and assignments from primary text.

Read and critically summarize research articles related to biological psychology.

Out-of-class Assignments
Internet-based assignments.

Discussion forum posts on class website in response to prompts on controversial topics related to biological psychology.

Writing Assignments
Essay questions on key concepts in each chapter.

Papers critically analyzing published research reports and articles related to biological psychology.

Written summaries of related web sites

METHODS OF STUDENT EVALUATION:
Midterm Exam
Final Exam
Short Quizzes
Written Assignments
Essay Examinations
Objective Examinations
Report
Projects (ind/group)
Problem Solving Exercises
Oral Presentations
Demonstration of Critical Thinking:
1. Critique of scientific articles
2. Critical thinking essay questions
3. Analysis of controversial issues related to ethics and applications of research in biological psychology

Required Writing, Problem Solving, Skills Demonstration:
1. Essay questions on key concepts in each chapter
2. Research papers which explain the hands-on experiments from the textbook.
3. Written critiques of related web sites

TEXTS, READINGS, AND RESOURCES:

TextBooks:

LIBRARY:
Adequate library resources include: Print Materials

Comments:

Attachments:
Attached Files