Course Syllabus

Department: Social Science

Date: February 25, 2013

I. Course Prefix and Number: PSY 215

   Course Name: Biological Psychology

   Credit Hours and Contact Hours: 3 credit hours / 3 contact hours

   Catalog Description including pre- and co-requisites: Supporting data required for grade prerequisite of 'C' or higher. This course is an introduction to the interaction between our biology and everything we do, think and feel. More specifically, it is a survey of the theories and research pertaining to the scientific study of anatomy, physiology, and pharmacology of behavior and mental processes. It will focus primarily on the structures and functions of the nervous system and explore how the nervous system affects such phenomena as development, sensation, perception, movement, sleeping, eating, sexual behavior, learning, memory, language, thoughts, emotions, and psychological disorders. It will also consider the relationship between the body and mind, and how and why brain activity gives rise to your unique conscious experience. High school biology or BIO 115 recommended. Prerequisites: PSY 100. (Also listed as SCI 215)

   Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable: This course fulfills the requirement for a Social Science elective.

II. Course Student Learning Outcomes: State the student learning outcome(s) for the course (e.g. Student will be able to identify...)

   Students will demonstrate understanding of the structure and function of the nervous system on anatomical, cellular, and molecular levels.

   Students will relate the structure and function of the nervous system to many of the behaviors and mental processes covered in the Introduction to Psychology course (PSY-100).

   Students will analyze the relationship between the mind and the body and, in doing so, will consider the purpose of consciousness.

   Students will identify the relationship between nature (biology, including genetics) and nurture (the environment; epigenetic) and demonstrate an understanding that they are synergistically dependent. They will further identify the means by which the nervous system adapts itself to the environment throughout an organism’s life.

   Students will demonstrate knowledge of the more common techniques and methods used to study the structure and function of the nervous system as they relate to behaviors and mental processes.

   Students will perform the basic operations of personal computer use.
Students will effectively and accurately communicate the terminology of biological psychology and, in doing so, demonstrate critical thinking of the terms.

**College Learning Outcomes Addressed by the Course:** *(check each College Learning Outcome addressed by the Student Learning Outcomes)*

- [ ] writing
- [ ] oral communications
- [x] reading
- [ ] mathematics
- [x] critical thinking
- [ ] computer literacy
- [ ] ethics/values
- [ ] citizenship
- [ ] global concerns
- [ ] information resources

**III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed):** *For each identified outcome checked, please provide the specific assessment measure.*

<table>
<thead>
<tr>
<th>List identified College Learning Outcomes(s)</th>
<th>Specific assessment measure(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Students will complete objective tests and/or exercises (which may include multiple-choice, short-answer, or essay questions) and/or subjective assignments that demonstrate that they have read and understood the assigned reading. These measures may be incorporated into the measures listed below.</td>
</tr>
</tbody>
</table>
| Critical thinking                           | Students will complete objective tests and/or exercises (which may include multiple-choice, short-answer, or essay questions) and/or subjective assignments that demonstrate that they understand the structure and function of the nervous system on anatomical, cellular, and molecular levels.  
- are able to relate the structure and function of the nervous system to many of the behaviors and mental processes covered in the Introduction to Psychology course (PSY-100)  
- are able to analyze the relationship between the mind and the body and, in doing so, consider the purpose of consciousness.  
- are able to identify the relationship between nature (biology, including genetics) and nurture (the environment; epigenetic) and understand their synergistic dependence.  
- able to identify the means by which the nervous system adapts itself to the environment throughout an organism’s life.  
- have knowledge of the more common techniques and methods used to study the structure and function of the nervous system as they relate to behaviors and mental processes. |
processes

These tests, exercises, and assignments will contain analytical and application questions or scenarios that require conceptual knowledge of the material.

<table>
<thead>
<tr>
<th>Computer literacy</th>
<th>Students will complete a computer-written paper and/or online tests, quizzes, and/or exercises that may include simulations, film clips, interactive websites, or other electronic sources.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information resources</td>
<td>Students will complete a computer-written paper and/or online tests, quizzes, and/or exercises that require them to locate valid sources such as simulations, film clips, interactive websites, other electronic sources, and/or published materials.</td>
</tr>
</tbody>
</table>

IV. Instructional Materials and Methods

Types of Course Materials:
At a minimum, student will be required to access a college-level textbook or other college-level reading materials as well as any supportive materials selected by the instructor such as a study guide and/or access to relevant websites or software. In addition, students may be expected to have access to a computer (including word processing software) and the Internet as well as to navigate the College’s learning management system.

Methods of Instruction (e.g. Lecture, Lab, Seminar …):
The course may be taught in any number of formats suitable to each specific topic presented. Methods of instruction may include (but are not limited to) lecture, discussion, videos, reading and writing assignments, collaborative teamwork, demonstrations, case studies, active-learning activities, computer simulations, and/or on-line activities

V. General Outline of Topics Covered:
The course will cover the following topics:
- The mind-brain relationship
- The genetics of behavior and the nature-nurture relationship
- The use of animals in research
- The structure of neurons
- Glia
- Nerve impulses
- Synapses and neurotransmission
- Hormones and the brain
- Drugs and addiction
- The anatomy of the nervous system
- Research methods in biological psychology
- Development and plasticity of the brain
- Wakefulness and sleep
- Reproductive behaviors
- Emotions
- Stress and health
- The biology of learning and memory
- Lateralization of function
- Language
- Consciousness and attention
- Mood disorders
- Schizophrenia