Date: April 2006

I. Course Name: Biological Psychology

Prefix and Number: PSY/SCI 215

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

Catalog description:

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. *Prerequisite:* PSY100. *Recommended:* high school biology or BIO 111. (Also listed as SCI 215.)

II. Course objectives and outcomes

Learning outcomes:

- Develop an understanding of the structure and function of the nervous system, including how the nervous system interacts with other systems of the body such as the endocrine and immune system, giving rise to behaviors, emotions and thoughts.
- Explore the relationship between the mind and the body, and nature and nurture. Consider the definition and purpose of consciousness.
- Address the means by which the nervous system continually adapts to one's changing environment.
- Consider the current technologies and scientific methodologies used to studying the workings of the nervous system.
- Other outcomes may include the development of skills in critical thinking, problem solving, ethics/values, citizenship, reading, and writing and oral communication.

Relationship to academic programs and curriculum:

This course fulfills a Social Science elective. (Taken as SCI 215, it fulfills a Natural Science elective.)

College competencies addressed by the course:

The course will address a subset of the following competencies:

- Writing
- Oral communication
- Reading
- Computer literacy
- Problem solving
- Ethics/values
- Information resources

III. Methods of instruction

Types of course materials:

The textbook and other course material will be selected by the instructor and listed on the course outline. Students may be required to obtain the assigned textbook and any relevant supplements, such as a student study guide and/or a text-based CD-ROM. In addition, students may be required to obtain a WebCT account, necessitating access to the Internet.

Methods of instruction:

The course may be taught in any of a number of formats suitable to the specific topic being presented. These formats may include (but are not limited to) lectures, discussions, collaborative teamwork, demonstrations, active-learning activities, and/or on-line activities.

Methods of evaluation:

Students may be evaluated via a number of different formats suitable to each specific topic. These formats may include (but are not limited to) multiple choice, short-answer, and/or essay tests and quizzes administered in class and/or via the Internet; homework assignments; research projects, term papers; and/or collaborative work.

Assessment measures:

The course will be evaluated via course-embedded measures. Assessment measures will consider students' mastery of the content of the course and/or their critical thinking ability.

IV. General outline of topics covered

- Mind-brain relationship
- Nature-nurture relationship
- Cells of the nervous system
- Neural potentials and impulses
- Synapses and chemical communication
- Anatomy of the nervous system
- Technologies and methodologies for studying the nervous system
- A subset of the following topics: the use of animas in research, development, vision, audition, the mechanical senses, the chemical senses, attention, movement, wakefulness and sleep, homeostatic processes, reproductive behaviors, emotion, stress and health, learning and memory, language, lateralization, and psychological disorders.