COURSE TITLE: The Biological Basis of Behavior

COURSE NUMBER: PSY 334

I. RATIONALE:

Biopsychology is one of the five core areas of formal knowledge (biopsychology, developmental psychology, social psychology, personality & abnormal psychology, cognitive psychology) that are essential to the field of modern psychology.

Biopsychology is a technical area within psychology and as such may be challenging for some students. Students are encouraged to take this course before taking other upper level psychology courses.

This course provides the background and information essential to understanding many problems and issues common to the rest of psychology. This is the course where the facts have direct application to understanding, preventing, remediating, or mitigating many of the problems common to human beings. Sophisticated research in this area will continue to have profound impact on the way we manage problems of behavior.

As Psychology professionals, we recognize that reactions to trauma come in many forms. The content of this course, and discussions about human biology and trauma from different perspectives, may bring about unexpected and unsettling reactions. Responses to trauma are often strategies that survivors have developed to keep themselves safe, and therefore really reflect strength and resiliency. Recognizing how trauma impacts anyone is an important part of skill building for creating trauma-informed services and systems. Please do not hesitate to contact the instructor at any time during the course if you would like to discuss, privately, your reactions to the content we are reviewing and/or the discussions we are having.

II. MAJOR INSTRUCTIONAL GOALS:

GOAL A:
The student will demonstrate an understanding of the bio-psychological systems that effect behavior.

Learning Outcomes: The student will:

A-1 Identify structure and parts of the brain.
A-2 Identify parts of the neuron.
A-3 Elaborate upon the steps in the process of sensation.
A-4 Describe the impact on defects of sensory process.
A-5 Describe the implications of pleasure seeking behavior.
A-6 Describe the implications of new technologies that extend human capabilities.
A-7 Elaborate upon the steps involved in coordination and movement and the implications for work and sports performance.
A-8 Elaborate upon the steps in ingestion-satiation behaviors (eating & drinking).

GOAL B:
The student will identify the function, purpose, effect and limitations of neurological systems.

Learning Outcomes: The student will:

B-1 Elaborate upon the role of neurotransmitters in behavior and illness.
B-2 Discuss the function and impact of hormones on behavior.
B-3 Elaborate the effects of drugs, chemicals, herbs, and nutrients on behavior and psychological phenomena.
B-4 Discuss the implications for addiction, deficiencies, defects, and illness.

GOAL C:
The student will understand the link between research and new treatment or application.

Learning Outcomes: The student will:

C-1 The student will be familiar with common research methods common to biology and psychology.
C-2 The student will be able to discuss the role of evolutionary mechanisms and their impact on human psychology.
C-3 The student will be able to elaborate upon the research cycle of observation, theory, experimentation, new theory and application.

GOAL D:
The student will develop a familiarity with the impact the biological sciences has upon understanding of psychological phenomena.

Learning Outcomes: The student will

D-1 Discuss addiction, major illnesses, adaptation, maladaptation, abnormality, defect, and compensation.
D-2 Discuss application to learning, cognition, and consciousness.
D-3 Discuss application to sexuality, emotion, aggression, and communication.

GOAL E:
The student will develop an awareness of implications of scientific knowledge on policy.

Learning Outcomes: The student will

E-1 The student will be able to discuss the implications of scientific knowledge on the different levels of human organization including the individual, the family, organizations and businesses, community and society.

E-2 The student will be able to discuss the impact or lack of impact of scientific knowledge on state, national, global government and organizational policy.

Goal F:
Understand the neurobiology of trauma and the implication it has for understanding the thoughts, feelings, and behaviors of children and adults.

Learning Outcomes: The student will:

F-1 Describe how the brain mediates threats with predictable neurobiological, neuroendocrinological and neuropsychological responses and how this impacts the developing brain.

F-2 Discuss how trauma is important in understanding the etiology of brain disorders including mental illness.

F-3 Explain how trauma-informed strategies can support learning and cognition to support resilience against and recovery from the most serious responses to trauma, and why trauma-informed and safe environments during the critical periods of early childhood are so important.

GOAL G:
Use of appropriate written and oral communication skills.

Learning Outcomes: The student will

G-1 Communicate information orally in a logical and grammatical manner.

G-2 Present written information using standard APA style.