A. Course Description

Credits: 3

Prerequisites:
- MATH 098 Introduction to Mathematical Thinking
- OR
- MATH 110 Math for Liberal Arts
- OR
- MATH 102 Mathematics of Sustainability or placement at or above College Algebra on the university’s assessment tests.

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: Goal 03 - Natural Science

This course surveys the general principles of the organization, structure, and function of the nervous system. In short, it serves to give you insights into the basics of how your brain works. Topics include neuroanatomy, action potentials, synaptic transmission, development of the nervous system, sensory transduction, sensory and motor systems, and learning. Students will gain an understanding of how cells signal to one another within the nervous system. They will understand the basic role each brain region plays in behavior. Students will examine how the structure of our nervous system results in the ability of illusions to trick our sensory system into perceiving something else. Students will also learn about different ways to study the brain. This course introduces students to the interdisciplinary nature of neuroscience by exposing them to psychology, biology, and even some chemistry concepts.

B. Course Effective Dates: 01/09/2017 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Describe how signals are created within a neuron and relayed to other neurons and apply this information to different situations such as learning and reflexes.
2. Demonstrate critical thinking skills and scientific creativity.
3. Discover the interrelation between form and function of the nervous system.
4. Relate scientific concepts covered in the course to themselves to better understand how they see, move, and behave within the world.
5. Identify, interpret, and explain learned scientific concepts and problems with peers.
6. Will be able to explain, at a basic level, how their brain works.

E. Learning Outcomes (MN Transfer Curriculum)

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
3. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.
G. Special Information

Note: First day attendance required except by instructor permission.