

BIOL 3700

Neuroscience

Spring 2021

Dr. Gannon

Bailey Science Center 2.032, 229-333-5759

Office Hours: TR 11:00 – 12:00

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Syllabus

The objective of this course is to provide students with the knowledge of how the brain functions at the cellular level. We will examine how the nervous system operates while completing routine tasks such as maintaining posture or more sophisticated skills such as communicating with language. This course will also introduce students to some of the extremely sophisticated technology used by neuroscientists to explore the functions of the brain. Finally, this course will contrast the function of the nervous system in normal and pathological states in order to demystify the etiology of neurological diseases.

Topics will be divided into four general areas: neural signaling, sensory input, motor output, and modification of neural circuits in complex brain functions.

- 2) Know the sensory pathways for input to the CNS;
- 3) Know the motor pathways for output from the CNS;
- 4) Know the interactive processes in coordinating sensory input and motor output;
- 5) Know chemical transmission and potential modifications;
- 6) Know neuronal plasticity and potential uses/limitations of plasticity;
- 7) Know the basics of neurological and motor diseases.

These goals support the Department of Biology Educational Objectives.

Title IX Statement Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment.

Required Text: *Neuroscience*, by Purves et al., 6th Edition

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Tentative Lecture Schedule

Spring 2021

Neuroscience
Purves et al.,
6th Ed
Chapter
1,
App.

Date	Topic
1/12	Introduction – General Anatomy