

BIOL 5824 - Behavioral Neuroscience

Fall 2026 Syllabus, Section 01, CRN 41242,

Credit hours: 4

Instructor

Jill Tall

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Public Instructor Information

Instructor Title: Associate Professor

Instructor Professional Qualifications:

Ph. D. (2001), Biomedical Sciences, Major Focus – Neurobiology, Minor Focus – Pharmacology, Kent State University in cooperation with Northeastern Ohio Universities College of Medicine

Bachelor's (1996), Zoology, Arizona State University

Instructor Office Location: Ward Beecher Hall #4026

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Course Description

5824. Behavioral Neuroscience. Explores the biological basis of human experience and behavior. Topics include basic neuroanatomy and neuropharmacology, emotions, learning and memory, sleep and biological rhythms, reproductive behavior, and communication. Three hours lecture, three hours lab. Prereq.: BIOL 3730. Coreq.: BIOL 5824L. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Introduction to Behavioral Neuroscience	Kirby et al.	978-1-961584-57-0

<https://openstax.org/details/books/introduction-behavioral-neuroscience>

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Proposed Topic	Due/To Prepare for Class
Mon	8/24	MODULE 1 – FOUNDATIONS IN NEUROSCIENCE How the Brain Builds Reality; Historical Perspectives in Neuroscience; Introduction to Nervous System Organization	
Wed	8/26	How the Brain Builds Reality; Historical Perspectives in Neuroscience; Introduction to Nervous System Organization	
Fri	8/28	How the Brain Builds Reality; Historical Perspectives in Neuroscience; Introduction to Nervous System Organization	
Mon	8/31	Cells of the Nervous System; Neurons and Glia; Organization of the Nervous System	



Wed	9/2	Cells of the Nervous System; Neurons and Glia; Organization of the Nervous System
Fri	9/4	Cells of the Nervous System; Neurons and Glia; Organization of the Nervous System
Mon	9/7	
Wed	9/9	Neuroanatomy – Organization, Structure, and Function
Fri	9/11	Neuroanatomy – Organization, Structure, and Function
Mon	9/14	Neuroanatomy and Neural Circuits; Introduction to Neural Communication
Wed	9/16	Neuroanatomy and Neural Circuits; Introduction to Neural Communication
Fri	9/18	Neuroanatomy and Neural Circuits; Introduction to Neural Communication
Mon	9/21	Bioelectricity; Resting Membrane Potential; Action Potentials
Wed	9/23	Bioelectricity; Resting Membrane Potential; Action Potentials
Fri	9/25	Bioelectricity; Resting Membrane Potential; Action Potentials
Mon	9/28	Synaptic Communication; Neurotransmitters and Neurochemistry
Wed	9/30	Synaptic Communication; Neurotransmitters and Neurochemistry
Fri	10/2	Synaptic Communication; Neurotransmitters and Neurochemistry
Mon	10/5	MODULE 1 INTEGRATED EXAMINATION
Wed	10/7	MODULE 2 – THE BRAIN BUILDS REALITY From Sensation to Perception
Fri	10/9	From Sensation to Perception
Mon	10/12	Sensation, Perception, and the Construction of Experience
Wed	10/14	Sensation, Perception, and the Construction of Experience
Fri	10/16	Sensation, Perception, and the Construction of Experience
Mon	10/19	Attention; Selective Processing; Executive Function
Wed	10/21	Attention; Selective Processing; Executive Function
Fri	10/23	Attention; Selective Processing; Executive Function
Mon	10/26	Learning; Memory Formation; Memory as Reconstruction
Wed	10/28	Learning; Memory Formation; Memory as Reconstruction
Fri	10/30	Learning; Memory Formation; Memory as Reconstruction
Mon	11/2	Memory, Cognition, and the Construction of Reality
Wed	11/4	Memory, Cognition, and the Construction of Reality

Fri	11/6	Memory, Cognition, and the Construction of Reality
Mon	11/9	MODULE 2 INTEGRATED EXAMINATION
Wed	11/11	
Fri	11/13	MODULE 3 – THE BRAIN IN CONTEXT Introduction to The Brain in Context
Mon	11/16	Stress, Adaptation & Vulnerability
Wed	11/18	Stress, Adaptation & Vulnerability
Fri	11/20	Stress, Adaptation & Vulnerability
Mon	11/23	Brain, Behavior, and Environment
Wed	11/25	
Fri	11/27	
Mon	11/30	Drugs, Reward & the Changing Brain
Wed	12/2	Drugs, Reward & the Changing Brain
Fri	12/4	MODULE 3 INTEGRATED EXAMINATION
Mon	12/7	
Wed	12/9	
Fri	12/11	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.