

2023-24 Molecular Neurobiology Concentration Worksheet

Major in Biological Sciences

**Molecular Neurobiology Concentration is not available if a student is also doing a Neurobiology Major.*

To complete this concentration, Biological Sciences Majors may choose any 3 of the following:

- BIOL_SCI 302-0** **Fundamentals of Neurobiology** - Cellular and biochemical approaches to the nervous system, focusing on neuron structure and function. May not receive credit for both BIOL_SCI 302-0 and NEUROSCI 202-0. *Prereqs: BIOL_SCI 201-0, BIOL_SCI 202-0, BIOL_SCI 301-0, and BIOL_SCI 310-0.*
- BIOL_SCI 303-0** **Molecular Neurobiology** - Exploration of the overlap between neurobiology and molecular biology. *Prereq: BIOL_SCI 302-0 or NEUROSCI 311-0.*
- BIOL_SCI 305-0** **Neurobiology Laboratory** - Hands-on experience in the performance of experiments in cellular neurophysiology. *Prereqs: BIOL_SCI 234-0, and BIOL_SCI 302-0 OR NEUROSCI 311-0.*
- BIOL_SCI 307-0** **Brain Structure, Function, and Evolution** - An overview of the evolution of the nervous system and cognition, from the origin of neurons to the structure and function of the human brain. *Prereq: BIOL_SCI 302-0, BIOL_SCI 325-0, BIOL_SCI 344-0, OR NEURO 206-0.*
- BIOL_SCI 325-0** **Animal Physiology** - Physiological principles and mechanisms responsible for the ability of animals to regulate variables in the steady state. *Prereq: BIOL_SCI 310-0.*
- BIOL_SCI 360-0** **Principles of Cell Signaling** - Emphasis on principles, components, and logic that are common to different cell signaling systems. Modern experimental strategies for studying cellular signaling as well as the implications of disrupting cell communication pathways in disease will be described. *Prereqs: BIOL_SCI 202-0 and BIOL_SCI 203-0.*
- BIOL_SCI 391-0** **Developmental Biology** - Molecular mechanisms underlying early embryonic development, including establishment of the body and organogenesis. *Prereqs: BIOL_SCI 202-0, BIOL_SCI 203-0, and BIOL_SCI 301-0.*
- BIOL_SCI 392-0** **Developmental Genetics Laboratory** - Development of independent projects alongside classic readings and experiments exploring key concepts in developmental biology. *Prereqs: BIOL_SCI 202-0, BIOL_SCI 203-0, BIOL_SCI 234-0, and BIOL_SCI 301-0.*