

Neuroscience, Minor

The Minor in Neuroscience

Overview

The curriculum within the Neuroscience minor will allow students from various disciplines to gain fundamental knowledge of neuroscience concepts. The interdisciplinary nature of the coursework echoes the nature of the field itself; students will select courses from the natural, social, and computer sciences. Neuroscientists not only require foundational knowledge of molecular, cellular, and systems neuroscience, but they should also understand the behavioral significance and appreciate how computational work and imaging techniques can aid in clarifying normal and abnormal functioning of these fundamental processes.

Students pursuing the minor in Neuroscience will:

- Acquire foundational knowledge of the basic biological foundations of the nervous system, from the cellular through systems levels.
- Understand the effects of basic neurological function on behavior, including cognition.
- Gain an appreciation of the interdisciplinary nature of the field of neuroscience.

All university students are eligible to pursue a minor in neuroscience in conjunction with a major in any other department in the university. A minimum of seven courses must be completed to fulfill the minor in neuroscience. The curriculum includes four required courses and three elective courses as specified below. Units awarded for undergraduate research are not applicable to elective courses. Courses taken in other departments or colleges will be considered on an individual basis by the Director of Undergraduate Studies, Dr. Amanda Willard (%20awillard@cmu.edu). Because the curriculum within this minor may overlap with some degree requirements, no more than 2 courses fulfilling Neuroscience Minor requirements may count towards the requirements of a student's major or other minor.

Course Requirements

Minimum units required for the Minor in Neuroscience:

63 units

Required Coursework (4 courses) 36 units

	Units
03-121 Modern Biology	9
or 03-151 Honors Modern Biology	
03-362 Cellular Neuroscience	9
03-363 Systems Neuroscience	9
85-170 Foundations of Brain and Behavior	9
or 03-161 Molecules to Mind	

Neurobiology Electives 27 units

27 units of electives required, including at least one (1) course 300-level or higher

Neurobiology Electives	Units
03-119 Biology for Life Special Topics Micro (requires approval from minor advisor - offered only in Doha)	3
03-133 Neurobiology of Disease	9
03-351 Computation and Biology Integrated Research Lab	9
03-360/02-319 Genomics and Epigenetics of the Brain	9
03-365 Neural Correlates of Learning and Memory	9
03-366 Neuropharmacology: Drugs, Brain and Behavior	9
85-110 Cognitive Psychology ¹	9
85-190 Psychopathology	9
85-310 Research Methods in Cognitive Psychology	9
85-370 Cognitive Neuropsychology Research Methods	9
85-406 Autism: Psychological and Neuroscience Perspectives offered only in Doha	9

85-413	Perception (requires approval from minor advisor - offered only in Doha)	9
85-414	Cognition in the Age of AI	9
85-420	Biologically Intelligent Exploration	9
85-472	Cognitive Neuropsychology	9

¹ 85-213 may be used instead of 85-110 when offered