

Multidisciplinary Studies - Neuroscience Minor Check Sheet (min 24 SH)

The neuroscience minor is designed to provide students with an introduction to the study of neuroscience at the various structural and functional levels of analysis, including molecular, cellular, integrative, and behavioral. (Students interested in a neuroscience major should see multidisciplinary studies and contact Dr. Tuan Tran (trant@ecu.edu), the neuroscience program director.) The minor requires completion of core courses (20 SH), laboratory research courses (2-3 SH), and an elective course (2-5 SH). Some courses require prerequisites to be met before being allowed to register; see the current undergraduate course catalog for prerequisite information. The curriculum is as follows:

Core Courses (20 SH)	Course Number	SH	Grade(s)
Principles of Biology and Laboratory I	<input type="checkbox"/> BIOL 1100 , <input type="checkbox"/> BIOL 1101	3 , 1	, ,
General Chemistry and Laboratory II	<input type="checkbox"/> CHEM 1160 , <input type="checkbox"/> CHEM 1161	3 , 1	, ,
Introductory Psychology or Honors Intro Psychology	<input type="checkbox"/> PSYC 1000 or <input type="checkbox"/> PSYC 1060	3	
Introduction to Neuroscience	PSYC 3310 (cross-listed as NEUR 3310)	3	
Cellular and Molecular Neuroscience	NEUR 4900 ^{*†}	3	
Behavioral and Integrative Neuroscience	NEUR 4901 [†]	3	
Total SH			

Neuroscience Laboratory Course (2-3 SH): Choose one from the following

Neuroscience Research	NEUR 2201 ^{††}	2	
Laboratory Methods in Behavioral Neuroscience	PSYC 4312 ^{†††}	3	
Neuroscience: Literature and Laboratory Experience	PSYC 4315 (may repeat 1 time) ^{†††}	3	
Total SH			

Structured Neuroscience Electives (2-5 SH)

Survey of Human Physiology and Anatomy , Lab	<input type="checkbox"/> BIOL 2130 , <input type="checkbox"/> BIOL 2131	4 , 1	, ,
Principles of Genetics	BIOL 2300	3	
Cellular Physiology	<input type="checkbox"/> BIOL 3310 , <input type="checkbox"/> BIOL 3311	4 , 0	, ,
Principles of Animal Physiology	BIOL 3320	3	
Transmission Electron Microscopy	<input type="checkbox"/> BIOL 5510 , <input type="checkbox"/> BIOL 5511	4 , 0	, ,
Scanning Electron Microscopy and X-Ray Analysis	<input type="checkbox"/> BIOL 5520 , <input type="checkbox"/> BIOL 5521	2 , 0	, ,
Organic Chemistry I , Lab	<input type="checkbox"/> CHEM 2750 , <input type="checkbox"/> CHEM 2753	3 , 1	, ,
Organic Chemistry II , Lab	<input type="checkbox"/> CHEM 2760 , <input type="checkbox"/> CHEM 2763	3 , 1	, ,
Biological Chemistry , Lab	<input type="checkbox"/> CHEM 2770 , <input type="checkbox"/> CHEM 2771	3 , 1	, ,
Electricity/Electronics Fundamentals	<input type="checkbox"/> ITEC 2054 , ITEC <input type="checkbox"/> 2055	3 , 0	, ,
Calculus for the Life Sciences I	MATH 2121	3	
Calculus for the Life Sciences II	MATH 2122	3	
Literature in Neuroscience	NEUR 4200	1	
Introduction to Philosophical Issues in Biology	PHIL 1262	3	
Introduction to Philosophy of Science	PHIL 2261	3	
Research Methods in Psychology (WI)	PSYC 2210	4	
Psychology of Learning	PSYC 3225	3	
Cognitive Psychology	PSYC 3226	3	
Neuropsychology	PSYC 3311	3	
Neuropsychopharmacology	PSYC 4340	3	
Total SH			

* If not offered, then the suitable substitute is **PSYC 4250 Adv Topics Seminar: Neurobiology of Learning and Memory (Dr. Tran's section only)**.

[†] Requires special permission from Dr. Tran and senior standing.

^{††} Requires a faculty research mentor to supervise work AND an Independent Study form submitted by the mentor. Although only one is required, faculty mentors normally prefer students to have a longer history in the lab (thus commit to more than one semester of coursework). See FAQ on neuroscience website.

^{†††} Requires a faculty research mentor to supervise work AND an Independent Study form submitted by the mentor. May be used to substitute for NEUR 2201.