Augustana College

Neuroscience

Courses required for the first year: None

Courses recommended for the first year: PSYC-200 Introduction to Neuroscience; CHEM-131, CHEM-132 and MATH-160 are also great for establishing a basic science foundation.

Contact:

Rupa Gordon (Program chair) - rupagordon@augustana.edu

The Major in Neuroscience

Required Courses

Course Name	Learning Perspective/ Suffix	Prerequisites	Usually offered: F, J, SP, SU*	Credits
Introduction to Neuroscience			Once or twice each year	4
Statistics	Q	*See below	F, SP	4
Research Methods		PSYC-100 or PSYC-200, AND PSYC-240 *See below	F, SP	4
Advanced Seminar in Neuroscience		PSYC-200 AND PSYC-246	Offered once per year, usually F	4
Methods in Neuroscience		PSYC-200 AND PSYC-246	J	4
Senior Inquiry		PSYC-246	F, SP	4
	Introduction to Neuroscience Statistics Research Methods Advanced Seminar in Neuroscience Methods in Neuroscience	Perspective/ SuffixIntroduction to NeuroscienceStatisticsQResearch MethodsAdvanced Seminar in NeuroscienceMethods in Neuroscience	Perspective/ SuffixIntroduction to NeuroscienceStatisticsQStatisticsQResearch MethodsPSYC-200, AND PSYC-240 *See belowAdvanced Seminar in NeurosciencePSYC-200 AND PSYC-246Methods in NeurosciencePSYC-200 AND PSYC-246PSYC-200 AND PSYC-246	Perspective/ SuffixF, J, SP, SU*Introduction to NeuroscienceOnce or twice each yearStatisticsQ*See belowF, SPResearch MethodsPSYC-100 or PSYC-200, AND PSYC-240 *See belowF, SPAdvanced Seminar in NeurosciencePSYC-200 AND PSYC-246F, SPMethods in NeurosciencePSYC-200 AND PSYC-246Offered once per year, usually FMethods in NeurosciencePSYC-200 AND PSYC-246J

Note: Enrollments in PSYC-240 and PSYC-246 are controlled by the department. Students interested in these courses should contact their NSCI advisor or, if not yet assigned to one, the department's administrative assistant, Kara Meyer (karameyer@augustana.edu), as soon as possible to secure a seat for a future term.

Additional Courses

Choose one neuroscience elective

- PSYC-342 Cognition (PSYC-246 prereq)
- PSYC-343 Sensation & Perception (PSYC-246 prereq)
- PSYC-347 Learning (PSYC-246 prereq)
- PSYC-418 Drugs & Addiction (PSYC-100 or PSYC-200 prereq & Junior status)

Choose two multidisciplinary electives (must be from different department codes)

- BIOL-130 Molecules to Cells (intended for BIOL majors)
 - BIOL-250 Genetics (BIOL-130 and BIOL-140 prereqs)
 - BIOL-358 Neuroanatomy (BIOL-351 prereq)
 - BIOL-360 Comparative Physiology (BIOL-130 and BIOL-140 prereqs)
- BIOL-362 Human Physiology (BIOL-130 prereq)
- CSC-320 Principles of Artificial Intelligence (PH; C or better in CSC-202 and MATH-250)
- CSD-205 Anatomy, Physiology, & Science of Speech
- CSD-210 Anatomy, Physiology, & Science of Hearing (CSD-110 prereq)
- CSD-410 Neural Bases of Human Communication
- PHIL-301 Decision & Game Theory (PS & Q)
- PHIL-310 Philosophy of Mind (PH)
- PHIL-314 Philosophy of Language (PH)
- RELG-355 Medical Ethics (PH)

Additional Recommended Courses

Some or all of the following are recommended for students planning to pursue graduate training in neuroscience and may be required by some graduate programs: CHEM-131, CHEM-132, CHEM-321, CHEM-322, CHEM-441, CHEM-442; MATH-160; PHYS-151, PHYS-152, or PHYS-211, PHYS-212, PHYS-213. Students should also participate in supervised research (PSYC-382, PSYC-385). Please consult with your advisor.

Major Overview

MAJOR IN NEUROSCIENCE 36 credits, including PSYC-200, PSYC-240, PSYC-246, PSYC-349, PSYC-352 one Neuroscience elective (choose from PSYC-342, PSYC-343, PSYC-347, PSYC-418); two multi-disciplinary electives from different course codes (choose from BIOL-130, BIOL-250, BIOL-358, BIOL-360, BIOL-362, CSC-320, CSD-205, CSD-210, CSD-410, PHIL-301, PHIL-310, PHIL-314, RELG-355); and one Senior Inquiry from PSYC-452, PSYC-458, or PSYC-466. Students who complete Senior Inquiry in another major must substitute an additional 4-credit elective at the 300 or 400 level. The major requires a minimum of 20 credits at the 300-400 level.

Students may not major or minor in both Psychology and Neuroscience.

Recommended supporting courses: some or all of the following are recommended for students planning to pursue graduate training in neuroscience and may be required by some graduate programs: CHEM-131, CHEM-132, CHEM-321, CHEM-322, CHEM-441, CHEM-442; MATH-160; PHYS-151, PHYS-152, or PHYS-211, PHYS-212, PHYS-213. Please consult with your advisor.

For course descriptions, see the catalog pages for Biology, Chemistry, Communication Sciences & Disorders, Computer Sciences, Math, Philosophy, Physics, Psychology, and Religion.

*Fall, J term, Spring, Summer; see Academic Calendar for specific dates

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