

The New Neuroscience Major at Dickinson College

PSYCHOLOGY COURSES (2 courses)

PSYCHOLOGY 125 Brain and Behavior (with lab)

1 of the following:

PSYCHOLOGY 310	Research Methods in Animal Learning
PSYCHOLOGY 315	Research Methods in Drugs and Behavior
PSYCHOLOGY 325	Research Methods in Biological Psychology
PSYCHOLOGY 330	Research Methods in Cognitive Psychology
PSYCHOLOGY 380	Research Methods Topics Class Related to Neuroscience

BIOLOGY COURSES (2 courses)

BIOLOGY 124 Biology of Behavior

1 of the following:

BIOLOGY 313	Cell Biology
BIOLOGY 327	Developmental Neurobiology
BIOLOGY 330	Neurobiology
BIOLOGY 333	Physiology

200 LEVEL NEUROSCIENCE COURSE (1 Course)

NEUROSCIENCE 200 Perspectives in Neuroscience

400 LEVEL NEUROSCIENCE COURSE (1 course)

PSYCHOLOGY 425	Human Neuropsychology
PSYCHOLOGY 430	Seminar in Cognitive Psychology
PSYCHOLOGY 480	(if neuroscience related)
BIOLOGY 401	(if neuroscience related)
BIOLOGY 412	(if neuroscience related)
NEUROSCIENCE 400	Neuroscience Seminar

CHEMISTRY (2 courses*)

CHEMISTRY 131 General Chemistry I with Lab

CHEMISTRY 132 General Chemistry II with Lab

*Chemistry 141 Accelerated General Chemistry with Lab will count for both courses.

PHYSICS (2 courses)

*PHYSICS 131 (or 141) Introductory Physics (or Physics for the Life Sciences)

*PHYSICS 132 (or 142) Introductory Physics (or Physics for the Life Sciences)

*Physics 141 and 142, if completing the pre-health curriculum, Physics 131 and 132, if not completing the pre-health curriculum.

NOTE: Mathematics 151 or 170 is a prerequisite/co-requisite for Physics 131 and 132.

ELECTIVES (2 courses)

Science Elective: One elective from either 300-level Psychology or Biology courses listed above that the student has not already taken or another upper-level science course related to Neuroscience (200-level or higher).

For more Information, See: <http://www.dickinson.edu/homepage/41/neuroscience>

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Current Dickinson courses that satisfy the Science Elective

Bio 216 Genetics

Bio 314 Ecology

Bio 315 Pop Gen & Evolution

Bio 318 Animal Development

Bio 321 Invertebrate Zoology

Bio 326 Microbiology

Bio 334 Vertebrate Biology

Bio 417 Molecular Genetics

Bio 418 Dev Genomic

Bio/Chem 342 Struct & Funct Biomolecules

Chem 490 (Med Chem, Bioorganic, Case Studies in Biochem)

ES 390 Modeling

Psych 355 Res Mthds in Child Dev

Psych 380 Res Mthds Topics (if relevant)

Psych 455 (Seminar in Developmental Psychopathology)

Non-Science Elective: The second elective must be outside of Division III (200 level or higher), and the case must be made (by the student to the advisor and/or program chair) that this course engages the major in philosophical, environmental, or socio-cultural discussions of science.

Current Dickinson courses that satisfy Elective 2

Amst 200 Health, Illness and Culture

Amst 301 Race, Gender and Body

Anth 216 Medical Anthropology

Anth 218 Biosocial Aspect of Female Sexuality

Anth 225 Human Osteology

Anth 229 Principles of Human Variation and Adaption

Anth 245 Medicine, Science & Society

Anth 245 Health & Healing in Africa

Anth 310 Nutritional Anthropology

Anth 331 Principles of Human Evol

Anth 375 Beauty

Engl 313 Linguistics, Scientific Study of Natural Human Language

Jdst 216 Jewish Medical Ethics

History 350 American Sci, Tech & Med

LAWP 400 Biomed Tech, Policy & Law

Phil 220 Biomedical Ethics

Phil 254 Philosophy of Science

Phil 256 Philosophy of Mind

Phil 391 Morality and Mind

Phil 391 Free Will and Science

Soc 228 Sociology of Sexuality

Soc 230 Soc of Health and Illness

Span 239 Span for Health Profession

Relgn 241 Care of the Soul

Relgn 260 Spiritual Dimen of Healing

Other courses, not included on this list, may satisfy the elective as determined by the Neuroscience Program Director.

EXPERIENCE IN NEUROSCIENCE

The Experience in Neuroscience requirement may be met by a variety of experiences. This requirement may be met satisfied by the successful completion of one of the following:

- 1) A neuroscience-related independent study (i.e., NRSC 500)
- 2) An independent research project (NRSC 550) OR student/faculty collaborative research project (NRSC 560)
- 3) A summer research project or internship with a faculty member
- 4) An off-campus research experience or internship
- 5) A research experience or internship not covered by the above but deemed equivalent by the contributing faculty

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* Two semesters of mathematical sciences (calculus and/or statistics), and two semesters of Organic Chemistry (CHEM 241 and 242) are strongly recommended for students intending graduate study toward an advanced degree in neuroscience or the health professions.

** Students may declare the major once they have successfully completed Psychology 125 or Biology 124.

STUDY ABROAD

Students who study abroad at the Dickinson Science Program in Australia, the Dickinson Science Program at the University of East Anglia (Norwich) or the Dickinson Program at the Danish Institute for Study Abroad (Copenhagen, Denmark) will find many course equivalents to required courses in the neuroscience major. For more information, see your Advisor, or contact a member of the Neuroscience Faculty.

NEUROSCIENCE CLUB

The mission of the Neuroscience Club at Dickinson College is to spread awareness of brain-related issues on campus, while providing a science community for Neuroscience, Psychology, Biochemistry & Molecular Biology, Chemistry, and Biology majors. All Neuroscience majors are encouraged to join and actively participate.

Neuroscience Faculty Contact Information

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