INTEGRATIVE NEUROSCIENCE MAJOR

Requirements

The course requirements for the integrative neuroscience major consist of four components: nine foundation courses required of all integrative neuroscience majors; three required, concentration-connected neuroscience courses that emphasize the different concentrations within the major; three concentration courses that allow the student to enhance their study within their chosen concentration; and a research experience lasting a minimum of two semesters, beginning as early as is reasonable for the student and project, but no later than the summer/fall after the junior year.

All majors must also enroll in a capstone research seminar course for students in all concentrations to share and discuss the results of their research with other integrative neuroscience majors.

A minimum grade of C- is required for courses to count towards the major.

Course | Title | Credits
--- | --- | ---
**Required Courses**

Select one of the following biology options: 8 to 10

Option 1:
- BISC 1403 & BISC 1413
  Introductory Biology I and Introductory Biology Lab I
- BISC 1404 & BISC 1414
  Introductory Biology II and Introductory Biology Lab II

Option 2:
- NSCI 1403 & NSCI 1413
  General Biology Lecture I and General Biology Lab I
- NSCI 1404 & NSCI 1414
  General Biology Lecture II and General Biology Lab II

Option 3:
- NSCI 1423 & NSCI 1433
  Concepts in Biology Lecture I and Concepts in Biology Lab I
- NSCI 1424 & NSCI 1434
  Concepts in Biology Lecture II and Concepts in Biology Lab II

Option 4:
- HPLC 1603 & HPLC 1604
  Honors: Natural Science I and Honors: Natural Science II

Select one of the following chemistry options: 12

Option 1:
- CHEM 1321 & CHEM 1331
  General Chemistry I and General Chemistry Lab I
- CHEM 1322 & CHEM 1332
  General Chemistry II and General Chemistry Lab II

Option 2:
- NSCI 1321 & NSCI 1331
  General Chemistry Lecture I and General Chemistry Lab I
- NSCI 1322 & NSCI 1332
  General Chemistry Lecture II and General Chemistry Lab II

Select one of the following Mathematics courses: 3 to 4
- MATH 1203
  Applied Calculus I
- MATH 1206
  Calculus I
- MATH 1700
  Mathematical Modelling

Select one of the following CISC programming courses: 4
- CISC 1600 & CISC 1610
  Computer Science I and Computer Science I Lab
- CISC 1800 & CISC 1810
  Introduction to Computer Programming and Introduction to Computer Programming Lab
- CISC 2500
  Information and Data Management
- CISC 4020
  Bioinformatics
- CISC 4631
  Data Mining

PSYC 1200
  Foundations of Psychology 3

BISC 4532
  Neuroscience

or NSCI 4630
  Neuroscience

PSYC 3110
  Cognitive Neuroscience

CISC 3250
  Systems Neuroscience

Three electives in one of these concentrations: 9 to 12

- Cell and Molecular Neuroscience
- Cognitive Neuroscience
- Systems/Computational Neuroscience

NEUR 4999
  Neuroscience Research

NEUR 4900
  Neuroscience Capstone Seminar

Availability

The integrative neuroscience major is available to students at Fordham College at Rose Hill and Fordham College at Lincoln Center, subject to fulfillment of major admissions requirements. Students in Fordham’s School of Professional and Continuing Studies may major in integrative neuroscience only if they fulfill the major’s admissions requirements and receive the approval of their advising dean and/or department, and their schedules are sufficiently flexible to permit them to take day courses at the Rose Hill or Lincoln Center campuses.

Fordham College at Rose Hill students: The requirements above are in addition to those of the Core Curriculum.

Fordham College at Lincoln Center students: The requirements above are in addition to those of the Core Curriculum.

Professional and Continuing Studies students: The requirements above are in addition to those of the PCS Core Curriculum and any additional electives that may be required to earn a minimum of 124 credits.

CIP Code

26.1501 - Neuroscience.
You can use the CIP code to learn more about career paths associated with this field of study and, for international students, possible post-graduation visa extensions. Learn more about CIP codes and other information resources.