

# NEUROSCIENCE MAJOR, B.S.

Neuroscience embodies the liberal arts experience as it draws on techniques and findings from several academic disciplines including biology, chemistry, computer science, mathematics, physics, and psychology. This program provides students with the fundamental knowledge and exposure needed to pursue careers and post-graduate studies in fields related to psychology, human development and aging, health and disease, rehabilitation, biomedical research, biotechnology, human-machine interactions, and other emerging disciplines.

The neuroscience major is open to all undergraduate students.

## Student Learning Outcomes

Upon completion of the neuroscience program, students should be able to:

- **Knowledge Base:** Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and trends in neuroscience including its links to other science disciplines
- **Scientific Inquiry and Critical Thinking Skills:** Apply basic research methods in neuroscience, including research design, data analysis, and interpretation. Demonstrate scientific reasoning, problem solving, and critical thinking
- **Ethics and Responsible Conduct of Research:** Demonstrate use of empirical evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinning of neuroscience as a science
- **Communication:** Demonstrate competence in writing and in oral communication skills. Be able to produce a research study or other neuroscience project, explain its scientific results, and present information
- **Individual and Professional Development:** Develop the ability to apply neuroscience content, skills, project management, and teamwork skills to career preparation. Awareness of career opportunities and paths toward career goals

## Requirements



In addition to the program requirements, students must

- earn a minimum final cumulative GPA of 2.000
- complete a minimum of 45 academic credit hours earned from UNC–Chapel Hill courses
- take at least half of their major core requirements (courses and credit hours) at UNC–Chapel Hill
- earn a minimum cumulative GPA of 2.000 in the major core requirements. Some programs may require higher standards for major or specific courses.

For more information, please consult the degree requirements section of the catalog (<https://catalog.unc.edu/undergraduate/degree-requirements/>).

Code	Title	Hours
<b>Core Requirements</b>		
NSCI 175	Introduction to Neuroscience (with a grade of C or better) <sup>F</sup>	3
Select one statistics course:		3-4
PSYC 210	Statistical Principles of Psychological Research <sup>H</sup>	

STOR 120	Foundations of Statistics and Data Science <sup>F</sup>	
STOR 155	Introduction to Data Models and Inference <sup>F</sup>	
Select one research methods course: <sup>1</sup>		3
NSCI 271	Cellular Mechanisms in Addiction Lab	
NSCI 273	Brainwaves: Human Electroencephalography Lab	
NSCI 274	Neurophysiology Data Science Lab	
NSCI 277	Addiction Neuroscience qPCR Laboratory	
NSCI 278	Molecular Brain Imaging Lab	
NSCI 279	Microglia Laboratory	
PSYC 270	Research Methods in Psychology	
Select two courses:		6
NSCI 221	Neuropsychopharmacology	
NSCI 222	Learning <sup>H</sup>	
NSCI 225	Sensation and Perception <sup>H</sup>	
Knowledge Electives (select at least six credit hours from list below)		6
Mathematics, Methods, Statistics Electives (select at least six credit hours from list below)		6
<b>Additional Requirements</b>		
BIOL 101 & 101L	Principles of Biology and Introductory Biology Laboratory <sup>H, F</sup>	4
BIOL 103	How Cells Function <sup>F</sup>	3
BIOL 220	Molecular Genetics <sup>H</sup>	3
CHEM 101 & 101L	General Descriptive Chemistry I and Quantitative Chemistry Laboratory I <sup>H, F</sup>	4
CHEM 102 & 102L	General Descriptive Chemistry II and Quantitative Chemistry Laboratory II <sup>H, F</sup>	4
CHEM 241	Modern Analytical Methods for Separation and Characterization <sup>H</sup>	3
CHEM 241L	Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds	1
CHEM 261	Introduction to Organic Chemistry I <sup>H</sup>	3
CHEM 262	Introduction to Organic Chemistry II <sup>H</sup>	3
CHEM 262L	Laboratory in Organic Chemistry	1
COMP 110	Introduction to Programming and Data Science <sup>H</sup>	3
or COMP 116	Introduction to Scientific Programming	
MATH 231	Calculus of Functions of One Variable I <sup>H, F</sup>	4
MATH 232	Calculus of Functions of One Variable II <sup>H, F</sup>	4
Select one course:		4
PHYS 114	General Physics I: For Students of the Life Sciences <sup>F</sup>	
PHYS 118	Introductory Calculus-based Mechanics and Relativity <sup>H, F</sup>	
Select one course:		4
PHYS 115	General Physics II: For Students of the Life Sciences <sup>F</sup>	





PHYS 119	 Introductory Calculus-based Electromagnetism and Quanta <sup>H, F</sup>	
PSYC 101	 General Psychology <sup>F</sup>	3
<b>Total Hours</b>		<b>78-79</b>

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

<sup>1</sup> Neuroscience research method courses NSCI 27\* should be prioritized over PSYC 270.

### Knowledge Electives (6 Credit Hours)

Code	Title	Hours
BIOL 205	Cellular and Developmental Biology <sup>1, H</sup>	4
BIOL 240	Cell Biology <sup>H</sup>	3
BIOL 425	Human Genetics	3
BIOL 431	Biological Physics	3
BIOL 440	Stem Cell Biology <sup>1</sup>	3
BIOL 450	Neurobiology <sup>1</sup>	3
BIOL 453	Molecular Control of Metabolism and Metabolic Disease <sup>1</sup>	3
BIOL 455	Behavioral Neuroscience <sup>1</sup>	3
BIOL 458	Sensory Neurobiology and Behavior <sup>1</sup>	3
BIOL 523	Sex Differences in Human Disease <sup>1</sup>	3
BIOL 542	 Light Microscopy for the Biological Sciences <sup>1</sup>	3
BIOL 544L	 Laboratory in Diseases of the Cytoskeleton <sup>1</sup>	3
BIOL 545	Exploring Brain, Gut, and Immunity <sup>1, H</sup>	3
BIOL 547	Synaptic Plasticity: Analysis of Primary Literature	3
BIOL 552	Behavioral Endocrinology <sup>1</sup>	3
BIOL 635	Careers in Biotechnology	1
CHEM 430	Introduction to Biological Chemistry <sup>H</sup>	3
COMP 210	Data Structures and Analysis	3
COMP 211	Systems Fundamentals <sup>1</sup>	3
COMP 301	Foundations of Programming <sup>1</sup>	3
COMP 311	Computer Organization	3
COMP 555	Bioalgorithms <sup>1</sup>	3
COMP 560	Artificial Intelligence <sup>1</sup>	3
COMP 562	Introduction to Machine Learning <sup>1, H</sup>	3
COMP 576	Mathematics for Image Computing <sup>1</sup>	3
COMP 581	Introduction to Robotics <sup>1, H</sup>	3
COMP 631	Networked and Distributed Systems <sup>1</sup>	3
COMP 633	Parallel and Distributed Computing <sup>1</sup>	3
COMP 651	Computational Geometry <sup>1</sup>	3
COMP 665	Images, Graphics, and Vision <sup>1</sup>	3
EXSS 155	 Human Anatomy and Physiology I <sup>H, F</sup>	3
EXSS 175	 Human Anatomy <sup>F</sup>	3

EXSS 256	Human Anatomy and Physiology II <sup>1</sup>	3
EXSS 275L	Human Anatomy Laboratory	1
EXSS 276	Human Physiology <sup>1</sup>	3
EXSS 380	Neuromuscular Control and Learning <sup>1, H</sup>	3
EXSS 580	Neuromechanics of Human Movement <sup>1</sup>	3
Any course between NSCI 300 - 699, with some exceptions (see footnote) <sup>2</sup>		
PHYS 405	Biological Physics	3
PHYS 461	Introduction to Medical Physics	3
PSYC 245	Psychopathology <sup>H</sup>	3
PSYC 404	Clinical Psychopharmacology	3
PSYC 469	Evolution and Development of Biobehavioral Systems	3
PSYC 517	Addiction	3
PSYC 559	Applied Machine Learning in Psychology <sup>1</sup>	3
PSYC 602	Evolutionary Psychology	3


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<sup>1</sup> Course requires a prerequisite(s) not otherwise counting in the major. Please review prerequisite information carefully when planning your course selection.

<sup>2</sup> Any course between NSCI 300 - 699 except NSCI 395, NSCI 405, NSCI 418, NSCI 419, NSCI 423, NSCI 439, NSCI 440, NSCI 493, and NSCI 693H/NSCI 694H

### Mathematics, Methods, and Statistics Electives (6 Credit Hours)

Code	Title	Hours
APPL 101	 Exploring Engineering	3
APPL 240	Electronics from Sensors to Indicators: Circuits that Interact with the Physical World	4
APPL 350	Data Science for Applied Science and Engineering	3
APPL 430	Optoelectronics from Materials to Devices	3
APPL 435	Nanophotonics <sup>1</sup>	3
BIOL 224H	The Mathematics of Life	3
BIOL 224L	The Mathematics of Life Laboratory	1
BIOL 226	Mathematical Methods for Quantitative Biology	3
BIOL 226L	Mathematical Methods for Quantitative Biology Laboratory	1
BIOL 553	Mathematical and Computational Models in Biology <sup>1</sup>	3
BIOL 554	Introduction to Computational Neuroscience <sup>1</sup>	3
BMME 207	Biomedical Electronics <sup>1</sup>	4
BMME 301	Human Physiology: Electrical Analysis <sup>1</sup>	3
BMME 545	Systems Neuroscience <sup>1</sup>	3

BMME 550	Medical Imaging I: Ultrasonic, Optical, and Magnetic Resonance Systems <sup>1</sup>	3
COMP 283	 Discrete Structures <sup>2, H</sup>	3
MATH 210	 Mathematical Tools for Data Science <sup>1</sup>	3
MATH 233	 Calculus of Functions of Several Variables <sup>H, F</sup>	4
MATH/STOR 235	 Mathematics for Data Science	4
MATH 347	Linear Algebra for Applications	3
MATH 381	Discrete Mathematics <sup>2, H</sup>	3
MATH 383	First Course in Differential Equations <sup>1, H</sup>	3
MATH 383L	First Course in Differential Equations Laboratory <sup>1</sup>	1
MATH 523	Functions of a Complex Variable with Applications <sup>1</sup>	3
MATH 528	Mathematical Methods for the Physical Sciences I <sup>1</sup>	3
MATH 528L	Laboratory for Mathematical Methods for the Physical Sciences I <sup>1</sup>	1
MATH 529	Mathematical Methods for the Physical Sciences II <sup>1</sup>	3
MATH 529L	Laboratory for Mathematical Methods for the Physical Sciences II <sup>1</sup>	1
MATH 535	Introduction to Probability <sup>1</sup>	3
MATH 555	Introduction to Dynamics <sup>1</sup>	3
MATH 560	Optimization with Applications in Machine Learning <sup>1</sup>	3
MATH 564	Mathematical Modeling in the Life Sciences <sup>1</sup>	3
MATH 566	Introduction to Numerical Analysis <sup>1</sup>	3
MATH 577	Linear Algebra <sup>1</sup>	3
MATH 594	Nonlinear Dynamics <sup>1</sup>	3
MATH 661	Scientific Computation I <sup>1</sup>	3
MATH 662	Scientific Computation II <sup>1</sup>	3
MATH 668	Methods of Applied Mathematics I <sup>1</sup>	3
MATH 669	Methods of Applied Mathematics II <sup>1</sup>	3
NSCI 395	 Independent Research <sup>3</sup>	3
NSCI 405	 Advanced Molecular Neuropharmacology	3
NSCI 418	Glial Neuroscience	3
NSCI 419	 Behavioral Endocrinology	3
NSCI 423	Cellular and Molecular Neurotechnology	3
NSCI 439	Neuroimmunology	3
NSCI 440	Behavioral Neuroscience and Experimental Methods in Rodents	3
NSCI 493	 Internship in Neuroscience	3
NSCI 693H	 Honors in Neuroscience I	3
NSCI 694H	 Honors in Neuroscience II	3
PSYC 533	The General Linear Model in Psychology <sup>H</sup>	3
STOR 215	 Foundations of Decision Sciences <sup>2</sup>	3
STOR 320	 Introduction to Data Science <sup>1</sup>	4
STOR 415	Introduction to Optimization <sup>1</sup>	3
STOR 435	Introduction to Probability <sup>1</sup>	3
STOR 445	Stochastic Modeling <sup>1</sup>	3
STOR 455	Methods of Data Analysis <sup>1</sup>	3
STOR 535	Probability for Data Science <sup>1</sup>	3

STOR 555	Mathematical Statistics <sup>1</sup>	3
STOR 556	Time Series Data Analysis <sup>1</sup>	3
STOR 565	Machine Learning <sup>1</sup>	3

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

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<sup>1</sup> Course requires a prerequisite(s) not otherwise counting in the major. Please review prerequisite information carefully when planning your course selection.

<sup>2</sup> Students may take one of COMP 283, MATH 381, or STOR 215.








<sup>3</sup> Students may only count NSCI 395 for three (3) hours of credit in the MMS elective.

## Sample Plan of Study

Sample plans can be used as a guide to identify the courses required to complete the major and other requirements needed for degree completion within the expected eight semesters. The actual degree plan may differ depending on the course of study selected (second major, minor, etc.). Students should meet with their academic advisor to create a degree plan that is specific and unique to their interests. The sample plans represented in this catalog are intended for first-year students entering UNC–Chapel Hill in the fall term. Some courses may not be offered every term.

### Sample I

#### First Year

Fall Semester	Hours
<b>First-Year Foundation Courses</b>	
IDST 101  College Thriving	1
ENGL 105  English Composition and Rhetoric or ENGL 105I  English Composition and Rhetoric (Interdisciplinary)	3
First-Year Seminar or First-Year Launch ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/first-year-seminars-launches/">https://catalog.unc.edu/undergraduate/ideas-in-action/first-year-seminars-launches/</a> ) <sup>1, F</sup>	3
Global Language through level 3 ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/">https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/</a> )	varies
<b>Major Courses</b>	
CHEM 101  General Descriptive Chemistry I & 101L  and  Quantitative Chemistry Laboratory I <sup>H, F</sup>	4
MATH 231  Calculus of Functions of One Variable I <sup>H, F</sup>	4

**Hours** 15

#### Spring Semester

<b>First-Year Foundation Courses</b>	
Triple-I and Data Literacy ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/triple-i/">https://catalog.unc.edu/undergraduate/ideas-in-action/triple-i/</a> )	4
<b>Major Courses</b>	

CHEM 102 & 102L	General Descriptive Chemistry II and Quantitative Chemistry Laboratory II <sup>H, F</sup>	4
MATH 232	Calculus of Functions of One Variable II <sup>H, F</sup>	4
NSCI 175	Introduction to Neuroscience <sup>F</sup>	3
<b>Hours</b>		<b>15</b>
<b>Sophomore Year</b>		
<b>Fall Semester</b>		
BIOL 101 & 101L	Principles of Biology and Introductory Biology Laboratory <sup>H, F</sup>	4
PSYC 101	General Psychology <sup>F</sup>	3
COMP 116	Introduction to Scientific Programming	3
CHEM 261	Introduction to Organic Chemistry I <sup>H</sup>	3
Additional Gen Ed or elective course <sup>2</sup>		3
<b>Hours</b>		<b>16</b>
<b>Spring Semester</b>		
Select one of the following		3
NSCI 221	Neuropsychopharmacology	
NSCI 222	Learning <sup>H</sup>	
NSCI 225	Sensation and Perception <sup>H</sup>	
BIOL 103	How Cells Function <sup>F</sup>	3
CHEM 262	Introduction to Organic Chemistry II <sup>H</sup>	3
Additional Gen Ed and elective courses <sup>2</sup>		6
<b>Hours</b>		<b>15</b>
<b>Junior Year</b>		
<b>Fall Semester</b>		
PHYS 114	General Physics I: For Students of the Life Sciences <sup>F</sup>	4
PSYC 210	Statistical Principles of Psychological Research <sup>H</sup>	3
CHEM 241	Modern Analytical Methods for Separation and Characterization <sup>H</sup>	3
CHEM 241L	Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds	1
Lifetime Fitness ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/">https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/</a> )		1
Additional Gen Ed or elective course <sup>2</sup>		3
<b>Hours</b>		<b>15</b>
<b>Spring Semester</b>		
PHYS 115	General Physics II: For Students of the Life Sciences <sup>F</sup>	4
Select one of the following research methods options: <sup>4</sup>		3
NSCI 274	Neurophysiology Data Science Lab	
NSCI 276		
NSCI 277	Addiction Neuroscience qPCR Laboratory	
NSCI 278	Molecular Brain Imaging Lab	
NSCI 279	Microglia Laboratory	
CHEM 262L	Laboratory in Organic Chemistry	1
BIOL 220	Molecular Genetics <sup>H</sup>	3

Additional Gen Ed and elective courses <sup>2</sup>		6
<b>Hours</b>		<b>17</b>
<b>Senior Year</b>		
<b>Fall Semester</b>		
CHEM 430	Introduction to Biological Chemistry (knowledge elective #1) <sup>H</sup>	3
Knowledge elective #2		3
MMS elective #1		3
Select one of the following		3
NSCI 221	Neuropsychopharmacology	
NSCI 222	Learning <sup>H</sup>	
NSCI 225	Sensation and Perception <sup>H</sup>	
Additional Gen Ed or elective course <sup>2</sup>		3
<b>Hours</b>		<b>15</b>
<b>Spring Semester</b>		
MMS elective #2		3
Additional Gen Ed and elective courses <sup>2</sup>		9
<b>Hours</b>		<b>12</b>
<b>Total Hours</b>		<b>120</b>

<sup>H</sup> Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

<sup>F</sup> FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

<sup>1</sup> Students are strongly encouraged to fulfill the FY-Seminar or FY-Launch First-Year Foundation requirement with a FY-Launch course in the major. Several FY-Launch course options are available. If done, then students can take an additional Gen Ed course in the fall semester.

<sup>2</sup> Students planning to apply to medical schools are advised to include BIOL 252 and BIOL 252L as a general elective in their course plan.

<sup>3</sup> Students planning to apply to medical schools are advised to include CHEM 430 as a knowledge elective in their course plan.

<sup>4</sup> Students are strongly encouraged to prioritize NSCI 27\* neuroscience research methods labs. However, PSYC 270 will still fulfill the research methods requirement.

## Sample II (for students with MATH 231 and CHEM 101/L credit)

<b>First Year</b>		
<b>Fall Semester</b>		
<b>First-Year Foundation Courses</b>		
IDST 101	College Thriving	1
ENGL 105	English Composition and Rhetoric	3
or ENGL 105I	or English Composition and Rhetoric (Interdisciplinary)	
First-Year Seminar or First-Year Launch ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/first-year-seminars-launches/">https://catalog.unc.edu/undergraduate/ideas-in-action/first-year-seminars-launches/</a> ) <sup>1, F</sup>		3
Global Language through level 3 ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/">https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/</a> )		varies

<b>Major Courses</b>		
MATH 232	Calculus of Functions of One Variable II <sup>H, F</sup>	4
CHEM 102	General Descriptive Chemistry II <sup>H, F</sup>	3
CHEM 102L	Quantitative Chemistry Laboratory II	1

**Hours** 15

### Spring Semester

#### First-Year Foundation Courses

Triple-I and Data Literacy ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/triple-i/">https://catalog.unc.edu/undergraduate/ideas-in-action/triple-i/</a> )	4
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#### Major Courses

NSCI 175	Introduction to Neuroscience <sup>F</sup>	3
PSYC 101	General Psychology <sup>F</sup>	3
CHEM 241L	Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds	1
CHEM 241	Modern Analytical Methods for Separation and Characterization <sup>H</sup>	3

**Hours** 14

### Sophomore Year

#### Fall Semester

PSYC 210	Statistical Principles of Psychological Research <sup>H</sup>	3
COMP 116	Introduction to Scientific Programming	3
CHEM 261	Introduction to Organic Chemistry I <sup>H</sup>	3
Additional Gen Ed and elective courses <sup>2</sup>		7

**Hours** 16

### Spring Semester

Select one of the following research methods options: <sup>4</sup> 3

NSCI 274	Neurophysiology Data Science Lab	
NSCI 276		
NSCI 277	Addiction Neuroscience qPCR Laboratory	
NSCI 278	Molecular Brain Imaging Lab	
NSCI 279	Microglia Laboratory	
BIOL 101	Principles of Biology <sup>H, F</sup>	3
BIOL 101L	Introductory Biology Laboratory	1
CHEM 262	Introduction to Organic Chemistry II <sup>H</sup>	3
CHEM 262L	Laboratory in Organic Chemistry	1
Lifetime Fitness ( <a href="https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/">https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/</a> )		1
Additional Gen Ed course		3

**Hours** 15

### Junior Year

#### Fall Semester

Select one of the following		3
NSCI 221	Neuropsychopharmacology	
NSCI 222	Learning <sup>H</sup>	
NSCI 225	Sensation and Perception <sup>H</sup>	
PHYS 114	General Physics I: For Students of the Life Sciences <sup>F</sup>	4

CHEM 430	Introduction to Biological Chemistry (knowledge elective #1) <sup>H</sup>	3
BIOL 103	How Cells Function <sup>F</sup>	3
Additional Gen Ed course		3

**Hours** 16

### Spring Semester

Select one of the following		3
NSCI 221	Neuropsychopharmacology	
NSCI 222	Learning <sup>H</sup>	
NSCI 225	Sensation and Perception <sup>H</sup>	
PHYS 115	General Physics II: For Students of the Life Sciences <sup>F</sup>	4
BIOL 220	Molecular Genetics <sup>H</sup>	3
Additional Gen Ed and elective courses <sup>2</sup>		6

**Hours** 16

### Senior Year

#### Fall Semester

Knowledge elective #2		3
MMS elective #1		3
Additional Gen Ed and elective courses <sup>2</sup>		9

**Hours** 15

### Spring Semester

MMS elective #2		3
Additional Gen Ed and elective courses <sup>2</sup>		10

**Hours** 13

**Total Hours** 120

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<sup>F</sup> FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

<sup>1</sup> Students are strongly encouraged to fulfill the FY-Seminar or FY-Launch First-Year Foundation requirement with a FY-Launch course in the major. Several FY-Launch course options are available. If done, then students can take an additional Gen Ed course in the fall semester.

<sup>2</sup> Students planning to apply to medical schools are advised to include BIOL 252 and BIOL 252L as a general elective in their course plan.

<sup>3</sup> Students planning to apply to medical schools are advised to include CHEM 430 as a knowledge elective in their course plan.

<sup>4</sup> Students are strongly encouraged to prioritize NSCI 27\* neuroscience research methods labs. However, PSYC 270 will still fulfill the research methods requirement.

## Special Opportunities in Psychology and Neuroscience

### Honors in Psychology and Neuroscience

Any major in the program with an overall grade point average of 3.3 or higher and prior research experience in a faculty lab (e.g., PSYC 395 or

NSCI 395) is eligible for enrollment in the departmental senior honors thesis program. Each candidate for honors participates in a two-semester course sequence (PSYC 693H and PSYC 694H or NSCI 693H and NSCI 694H) and carries out independent research in an area of the student's choice under the guidance of a psychology and neuroscience faculty member. Please see the department website for the application form (<https://psychology.unc.edu/honors-program/>) and additional information.

## Departmental Involvement

The Carolina Psychology and Neuroscience Ambassadors Program (<https://tarheels.live/psychologyandneuroscienceambassadors/>) is a peer mentoring program which connects relative new or inexperienced psychology and/or neuroscience majors with more advanced and experienced students, in order to create stronger networking and provide greater access to support and resources.

The Carolina Neuroscience Club (<http://carolinaneuroscience.web.unc.edu>) brings together students who have an interest in the brain and nervous system. Club members meet regularly to discuss courses, research articles, and post-college neuroscience opportunities. Membership is open to anyone interested in neuroscience.

Psi Chi (<https://hellife.unc.edu/organization/psi-chi-psychology-national-honor-society-uncch/>) is the National Honor Society for psychology. UNC's chapter strives to increase awareness of career options as well as the role of psychology in the community, among exemplary psychology students.

Nu Rho Psi (<https://nurhopsi.org/>) is the National Honor Society for neuroscience. The Nu Rho Psi chapter at Carolina aims to build connections among neuroscience students on campus, celebrate brain awareness week in our community, provide mentorship to underclassmen interested in the field, and much more.

Helping Give Away Psychological Science (<https://www.hgaps.org/>) is a student-based nonprofit organization to improve information about psychology on Wikipedia, on other online sites, and in the community.

## High-Impact/Experiential Education

Several opportunities for experiential education are available. The Karen M. Gil Internship Program (<http://psychology.unc.edu/undergraduate-studies/gil-internship/>) offers both course credit and a monthly stipend to selected psychology and neuroscience majors who are placed in approved internship sites in the community. Interns are selected through a competitive process (minimum grade point average is 3.4). Other experiential education opportunities include PSYC 395; NSCI 395; PSYC 693H; PSYC 694H; NSCI 693H; NSCI 694H; coursed-based research courses (such as NSCI 27\* lab-based research courses); or courses where service learning is a central focus, such as a psychology or neuroscience course with an APPLES (<https://ccps.unc.edu/apples/>) program component.

## Undergraduate Awards

The Department of Psychology and Neuroscience administers several undergraduate awards: the Dashiell-Thurstone Prize; the David Bray Peele Undergraduate Award; the Donald T. Lysle Service Award; the Lindquist Undergraduate Research Award; the J. Steven Reznick Award for Diversity Enhancement in Psychological Research; the J. Steven Reznick Diversity and Psychological Research Grant; and the Susan M. McHale Award for Outstanding Psychological Research by a Student Who Enhances Diversity, as well as several fellowships and grants administered through the UNC Office for Undergraduate Research

(<https://our.unc.edu/>) or the UNC Honors Carolina Office (<https://honorscarolina.unc.edu/>). Additional honors include election to Psi Chi, the national honor society for psychology undergraduates, and/or election to Nu Rho Psi, the national honor society for neuroscience undergraduates. Each year, the Lindquist Undergraduate Research Award is given to several undergraduate students to support their research; the Dashiell-Thurstone Prize is awarded to one student for the best undergraduate research project; the David Bray Peel Undergraduate Award is given for the best honors project; and the Donald T. Lysle Service Award is given to a psychology or neuroscience major who has made exemplary service contributions. The Donald T. Lysle Service Award is presented at the Chancellor's Award Ceremony, the only campus-wide recognition at Carolina. The department also supports awards that support diversity. The J. Steven Reznick Award for Outstanding Research That Enhances Diversity is for a graduating senior who has conducted excellent research that contributes to psychological knowledge about diversity and the J. Steven Reznick Diversity and Psychological Research Grant as well as the Susan M. McHale Award for Outstanding Research by a Student Who Enhances Diversity are awarded to student researchers who identify as being from an underrepresented population. For each of these awards, diversity is broadly defined, including but not limited to diversity based on race, ethnicity, sexual orientation, gender, disability, religious affiliation, and socioeconomic status. For additional details on these awards, please visit the Psychology and Neuroscience page on undergraduate awards (<https://psychology.unc.edu/departmental-awards/#undergraduateawards>).

## Undergraduate Research

Qualified students interested in doing independent research under the direction of a faculty member may enroll for independent research credit (PSYC 395 or NSCI 395). Students interested in this option should speak directly with psychology faculty members regarding opportunities in their laboratories. Additional information is available on the department's website (<http://psychology.unc.edu/undergraduate-studies/undergraduate-research/>). Many other psychology and neuroscience courses also include heavy research components and/or meet the general education research and discovery requirement (NSCI 27\* labs). See the research methods, research intensive, and research exposure courses at the Office for Undergraduate Research (<https://our.unc.edu/find-research-courses/>).

## Department Programs

### Majors

- Neuroscience Major, B.S. (p. 1)
- Psychology Major, B.A. (<https://catalog.unc.edu/undergraduate/programs-study/psychology-major-ba/>)
- Psychology Major, B.S. (<https://catalog.unc.edu/undergraduate/programs-study/psychology-major-bs/>)

### Minors

- Neuroscience Minor (<https://catalog.unc.edu/undergraduate/programs-study/neuroscience-minor/>)

### Graduate Programs

- M.A. in Psychology (<https://catalog.unc.edu/graduate/schools-departments/psychology-neuroscience/>)
- Ph.D. in Psychology (<https://catalog.unc.edu/graduate/schools-departments/psychology-neuroscience/>)

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