

Neuroscience, PHD

The Interdisciplinary Program in Neuroscience (IPN) (<https://neuroscience.georgetown.edu/>) focuses on research training and the completion of independent dissertation research. Doctoral students frequently forge new collaborations within the close-knit IPN community, allowing them to pursue multiple approaches during their research training and launching them to the forefront of their area of research.

The program aims to ensure Ph.D. candidates obtain a comprehensive and well-rounded background in the neurosciences covering cellular, molecular, systems, and cognitive approaches. Students complete required courses in neuroscience as well as advanced electives and laboratory rotations.

- Modality: On Campus
- Academic Policies and Procedures: IPN Student Handbook (<https://docs.google.com/document/d/1Q0711st-FqvmefwB6m3w2IL51Fvg6gSg/>), IPN Bylaws (<https://georgetown.app.box.com/s/qwmy1aecd4qg3n4hetbjk11fqdh76z5l>), BGE Handbook (https://docs.google.com/document/d/1rkaOm8U_1eVwabvkl_HFvpfSWrMGnrc6Ex41erxP7g/edit?usp=sharing)
- Contact the Program (<https://neuroscience.georgetown.edu/contact/>)

This program is offered through Biomedical Graduate Education (BGE) (<https://biomedicalprograms.georgetown.edu/>) at Georgetown University School of Medicine.

Requirements

Students must complete 34 credits of coursework, which includes 23 credits of required courses and 11 credits of electives to tailor the training towards their interests.

The comprehensive exam includes two components: a written exam and an oral exam. Students take the written exam in the spring of Year 1, and the oral exam by the end of Year 2. Students must pass both exams before advancing to doctoral candidacy and beginning full-time thesis research. The ascension to candidacy must be completed no later than the beginning of the student's third year in the program.

Code	Title	Credits
Required Courses		
NSCI 8001	Experiences in Neuroscience	0
NSCI 9985	NSCI Lab Rotation Summer	0
INNS 6300	Translational Neuroscience	2
INNS 6500	Basic Neuroscience I	4
NSCI 6510	Advanced Neuroscience I	2
NSCI 5001	Neuroscience Survey I	2
NSCI 5003	Neurosci Critical Readings	1
NSCI 5009	Practical Data Anlys & Exp Des	2
NSCI 9986	NSCI Lab Rotation Fall	0
NSCI 5005	Systems & Cognitive Neurosci	6
NSCI 5006	Critical Readings II	1

NSCI 5007	Surv Skills & Ethics for Scien	2
NSCI 5008	Org of the Nervous System	1
NSCI 9987	NSCI Lab Rotation Spring	0

Recommended Electives ^{1,2} 11

NSCI 6001	Adv Cellular & Molec Neurosci
NSCI 6003	Functional MRI: Theory & Pract
NSCI 6004	Neuroscience of Language
NSCI 6006	Computational Neuroscience
INNS 6003	Applied Eng for Behav Neurosc
INNS 6310	Principles of Neuroimmunology
BCMC 5001	BIOCHEM & CELLULAR SCIENCES
BIOL 5798	Synaptic Transmission
BSPA 6606	Public Policy for Scientists
ICOS 7710	Cognitive Science Core Course
PHAR 6000	Principles of Pharmacology
PHSL 6534	Cell & Molec Physiology
PSYC 5001	Lifespan Dev:Brain & Cognition
NSCI 5009	Practical Data Anlys & Exp Des
NSCI 6005	Neuroscience of Language II
INNS 6007	Molec Mech of Neurodegration
INNS 6301	Neurobiology of Drug Addiction
INNS 6303	Cognitive Neuroscience & Aging
ICOS 7712	Cognitive Science seminar
PHAR 5000	Intro to Pharmacology
PHAR 6504	Medicinal Plants&Pharmacognosy
PSYC 5003	Cognitive Neuroscience
TBIO 6588	Preparing A Scientific Paper

Total Credits 34

¹ IPN students are expected to have mastery of statistics and experimental design. This is most often accomplished by taking a graduate-level statistics course.

- NSCI 5009 Practical Data Anlys & Exp Des
- PSYC 5005 Quant Methods in Psyc II

² Tutorials: Individualized instruction on advanced topics in neuroscience by IPN faculty. Students need to set up tutorials by contacting the faculty member they want to serve as their tutor, outlining the plan of study, and filling out the appropriate form to register the tutorial with approval from the IPN Curriculum Chair.

- NSCI 9001 Tutorial: NSCI

Related Programs

- Integrative Neuroscience, MS (<http://coursecatalog.georgetown.edu/programs/integrative-neuroscience-ms/>)