

Neuroscience: Systems, Behavior and Plasticity, M.S.

COLLEGE OF LIBERAL ARTS

Learn more about the Master of Science in Neuroscience: Systems, Behavior and Plasticity.

About the Program

Neuroscience is the study of the nervous system, including the brain, spinal cord, networks of nerve cells called neurons, and how these cells interact to generate behavior. This is a rapidly evolving field with applications ranging from health disciplines to economics and public policy. The philosophical goal of the M.S. program in Neuroscience: Systems, Behavior and Plasticity is to provide advanced training in neuroscience and professional development via coursework and a faculty-mentored research experience to students who have completed an undergraduate major in Neuroscience or a closely related scientific area and who wish to extend their studies before moving on to other post-graduate training or professional employment. Students in this program achieve the following objectives:

- Build a core knowledge in specific areas of neuroscience, including behavioral, cellular, molecular, and systems.
- Develop a general professional competence in oral and written expression as well as in the critical analysis of research articles.
- Learn to understand, create, and undertake hypothesis-based approaches to research.
- Train in a variety of techniques and approaches to studying the nervous system.
- Develop a keen sense of analytical thinking and logic in the evaluation of their own work and that of others.
- Become effective teachers and communicators of neuroscience.
- Gain independence in thinking, teaching, laboratory work, and communicating.

Time Limit for Degree Completion: 2 years

Campus Location: Main

Full-Time/Part-Time Status: The degree program is expected to be completed on a full-time basis.

Job Prospects: Because the brain is involved in every important human endeavor, understanding the brain and its functions opens career paths in multiple fields, including education, engineering, law, medicine, psychology, and public policy. Master's-level education in neuroscience provides students with a wide range of career options, including:

- Biostatistician
- Clinical data manager
- Counselor
- Environmental health safety officer
- Medical or science writer
- Public health administrator
- Public policy strategist
- Regulatory affairs specialist
- Research associate at academic research institutes or in private industry
- Research and teaching administrator
- Teacher/lecturer

The United States Bureau of Labor Statistics identifies the breadth of employment opportunities in neuroscience along with the salary ranges for different careers options based on different types of employers in its Occupational Outlook Handbook.

Non-Matriculated Student Policy: Non-matriculated students are eligible to take graduate courses. If accepted into the program, up to 9 credits may be applied toward the degree program.

Financing Opportunities: Assistantships are not available for the M.S. program.

Admission Requirements and Deadlines

Application Deadline:

Fall: March 1

APPLY ONLINE to this graduate program.

Letters of Reference:

Number Required: 3

From Whom: Letters of recommendation should be obtained from college/university faculty who are familiar with the applicant's academic abilities.

Bachelor's Degree in Discipline/Related Discipline: All applicants must hold a baccalaureate degree (B.A. or B.S.) in one of the following disciplines:

- Bioengineering
- Biology
- Chemistry
- Human Movement Science
- Kinesiology
- Mathematics
- Neuroscience
- Physics
- Psychology
- Public Health

Other relevant disciplines, combined with or including coursework in Biology, Chemistry, Mathematics/Statistics, Neuroscience, Physics, and/or Psychology, may be accepted after individual evaluation of the applicant's qualifications.

A minimum GPA of 3.2 in undergraduate work is required for consideration of the application to the program.

Statement of Goals: Approximately 500 to 1,000 words outline your specific interest in Temple's program, your academic achievements, and your future career goals.

Standardized Test Scores:

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 88
- IELTS Academic: 6.5
- PTE Academic: 60

Program Requirements

General Program Requirements:

Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

Code	Title	Credit Hours
Core Courses		
NSCI 5001	Systems and Behavioral Neuroscience	3
NSCI 5002	Neurochemistry	3
NSCI 5016	Professional Development in Neuroscience	3
NSCI 9381	Readings in Neuroscience (3 terms)	3
PSY 5003	Advanced Statistics	3
PSY 8712	Core Course in Behavioral Neuroscience	3
Electives ¹		6
Capstone Course		
NSCI 9991	Directed Research	6
Total Credit Hours		30

¹ Students may select any elective relevant to their area of interest or specialization with approval from the Program Director.

Culminating Events:

Master's Project:

Students are required to work on a master's project over both terms in their second year of the program. The purpose of the project is not only to train students in specific neuroscientific techniques, but also how to develop a scientific and analytical approach toward a problem, formulate clear research questions, conduct experiments, and analyze/interpret data. Depending on their career goals, students may opt to engage either in a laboratory-based research project or in a non-laboratory project.

Students who are motivated to join a doctoral program or are interested in a research position gain by working independently on a neuroscientific investigation under the supervision of a faculty member who maintains an active neuroscience research program. On the other hand, students who are not intending to engage in bench-level research upon graduation and are interested in non-research jobs, such as counseling, research administration, public policy, and teaching, may choose to engage in a non-laboratory project of a similar scope.

Contacts

Program Web Address:

<https://www.temple.edu/academics/degree-programs/neuroscience-systems-behavior-and-plasticity-ms-la-nsbp-ms>

Department Information:

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Submission Address for Application Materials:

<https://apply.temple.edu/CLA/>

Department Contacts:

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