**NEUROSCIENCE, PHD**

*for the degree of Doctor of Philosophy in Neuroscience*

Because of the breadth of the fields in this program, the coursework is tailored to the student’s fields of interest as declared by a major and at least two minor areas of concentration from among those listed above. A faculty committee of representatives from the major and minor areas will then meet regularly with the student to plan coursework and research experience. The goal of this plan is to allow maximum flexibility while providing students with close guidance. Courses and laboratory research experience are supplemented by weekly seminars in neuroscience.

**Graduate Degree Programs in Neuroscience**

Neuroscience, PhD (p. 1)

The Neuroscience Program is an interdisciplinary and highly individualized Ph.D. program. Students have varied backgrounds but typically have undergraduate degrees in psychology, biology, electrical engineering, or computer science. The Neuroscience Program guides students to become productive, scholarly neuroscientists with access to careers in academic research, medicine, industry or non-research careers such as law, policy, or journalism. The faculty have broad and diverse research interests; areas of particular strength include aging, brain plasticity, cognitive functions, neurogenomics, molecular bases of development and disease and neuroengineering. Integrative and collaborative studies that bridge two or more labs are encouraged.

**Admission**

Applications are considered individually by the admissions committee, for the fall semester and subject to final approval by the Graduate College. Graduate Record Examination (GRE) scores are optional. International applicants must meet the minimum English Language requirements as set by the Graduate College at https://grad.illinois.edu/admissions/instructions/04c. Admission and financial aid are considered together.

**Financial Aid**

The Neuroscience Program is committed to supporting its students and makes every effort to ensure that students who remain in good academic standing receive full support including tuition waiver and stipend throughout their tenure in the program. Support may come in the form of fellowships, traineeships, research assistantships, or teaching assistantships according to the student’s qualifications.

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For additional details and requirements refer to the department’s Program for Graduate Study (https://neuroscience.illinois.edu/academics/graduate-program/) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook/).

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NEUR 520</td>
<td>Advanced Topics in Neuroscience (Section 1, Seminar - each of first 4 semesters)</td>
<td>4</td>
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<td>NEUR 500</td>
<td>Topics in Neuroscience</td>
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<td>NEUR 520</td>
<td>Advanced Topics in Neuroscience (Section 2, Professional Development Program.)</td>
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<tr>
<td>NEUR 599</td>
<td>Thesis Research (0 min applied toward degree)</td>
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</tbody>
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**Total Hours** 96

**Other Requirements**

- **Admission to Ph.D.?** No
- **Qualifying Exam Required:** Yes
- **Preliminary Exam Required:** Yes
- **Final Exam/Defense Required:** Yes
- **Dissertation Deposit Required:** Yes
- **Minimum GPA:** 3.0

*for the degree of Doctor of Philosophy in Neuroscience*

1. **Knowledge and critical thinking:** Students are expected to acquire broad knowledge of neuroscience and in-depth knowledge of one major area and two minor areas of concentration in neuroscience.

2. **Mastery of experimental design and methods:** Students are expected to apply their neuroscientific knowledge to creatively and successfully plan, design, carry out, and interpret experiments. They are also expected to be fully competent in the standard techniques of their field and to learn cutting-edge techniques where possible.

3. **Analytical and quantitative skills:** All students are expected to become experts in the treatment, analysis, and interpretation of data and are strongly encouraged to take statistics courses appropriate to their research area. Students are also expected to master the treatment, analysis, and interpretation of data.

4. **Writing and presentation skills:** All students must demonstrate strong writing skills that lead to manuscripts and grant proposals. Students are also expected to communicate their research effectively to general scientific and lay audiences.

5. **Teaching and mentoring:** Students are expected to develop into successful teachers and mentors. They are required to be Teaching Assistants for one semester at 50% (or two semesters at 25%). Students are also expected to successfully mentor one or more undergraduate students, or more junior graduate students.

6. **Professional skills and ethics:** Students are expected to develop professionally, attain a deep understanding of research and personal ethics, and prepare for successful careers after graduation.

*Information listed in this catalog is current as of 12/2023*
Leadership and Community Engagement: Students are expected to build and sustain productive relationships and at the local level, create positive change in their communities, thereby developing a reflective orientation toward social and cultural differences.

for the degree of Doctor of Philosophy in Neuroscience

Neuroscience Program
Program Director: Martha Gillette
Program Coordinator: Michelle Tomaszycki
Program website (http://neuroscience.illinois.edu)
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(217) 300-7978
Neuroscience email (nsp@life.illinois.edu)

College of Liberal Arts & Sciences
College of Liberal Arts & Sciences website (https://las.illinois.edu/)

Admissions
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)