

# NEUROSCIENCE, PHD

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### MAJOR REQUIREMENTS

#### MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

#### Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW–Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

### CURRICULAR REQUIREMENTS

#### Requirement Detail

Minimum Credit Requirement 51 credits

Minimum Residence Credit Requirement 32 credits

Minimum Graduate Coursework Requirement 26 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework Requirement (50%) Requirement policy: <https://policy.wisc.edu/library/UW-1244> (<https://policy.wisc.edu/library/UW-1244/>).

Overall Graduate GPA Requirement 3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: <https://policy.wisc.edu/library/UW-1203> (<https://policy.wisc.edu/library/UW-1203/>).

Other Grade Requirements n/a

**Assessments and Examinations** Candidates must meet with their advisory committee once per semester until they become a dissertator and then once per year thereafter.

The preliminary examination consists of two papers: a dissertation proposal, and a critical research paper unrelated to the proposal. The preliminary examination should be completed by the end of the second summer of graduate study. Students who fail one or both parts of the preliminary examination may retake the examination within two months. Failure to pass the examination the second time will result in dismissal from the program.

The final dissertation must be submitted to the advisory committee and an oral defense of the thesis must be given. The thesis defense consists of a public presentation of the thesis followed by a closed meeting with the advisory committee. Deposit of the doctoral dissertation in the Graduate School is required.

**Language Requirements** No language requirements.

**Graduate School Breadth Requirements** Completion of a doctoral minor or graduate/professional certificate is not required of students in the NTP doctoral program.

### REQUIRED COURSES

Code	Title	Credits
<b>Core Courses</b>		<b>10</b>
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	
NTP/NEURODPT/ PSYCH 611	Systems Neuroscience	
NTP 700	Professional Development for Biomedical Graduate Students	
NTP 701	Experimental Design and Statistical Methodology	

#### One Mid-level Molecular/Cellular/Developmental Neuroscience Course

B M E/ MED PHYS/ PHMCOL- M/PHYSICS/ RADIOL 619	Microscopy of Life	
NTP/ NEURODPT 629	Molecular and Cellular Mechanisms of Memory	
NTP 735		
NTP 670		
NTP 675	Special Topics	
NTP/NEURODPT/ ZOOLOGY 765	Developmental Neuroscience	
PHMCOL-M 781	Molecular and Cellular Principles in Pharmacology	
ZOOLOGY 604	Computer-based Gene and Disease/Disorder Research Lab	

#### One Mid-level Systems/Behavioral Neuroscience Course

B M E 601	Special Topics in Biomedical Engineering
CS&D 850	Hearing Science I: Basic Acoustics and Psychoacoustics
COMP SCI/B M I/ PSYCH 841	Computational Cognitive Science
KINES 713	Neural Basis of Normal and Pathological Movement
KINES 721	Neural Basis for Movement
KINES 861	Principles of Motor Control and Learning
NTP 677	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine
NTP 675	Special Topics
NTP/ MED PHYS 651	Methods for Neuroimaging Research
PSYCH 711	Current Topics in Psychology <sup>1</sup>
PSYCH 733	Perceptual and Cognitive Sciences <sup>2</sup>
PSYCH 954	Seminar-Physiological Psychology
PSYCH 918	Seminar-General Psychology

**Seminar 10**

NTP 900	Neuroscience Seminar: Current Topics in Neurobiology
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Students in our program are expected to be enrolled in NTP 900 every Fall/Spring semester.

**Research Credits**

NTP 990	Research and Thesis
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Students in our program are expected to be enrolled in NTP 990 every Fall/Spring/Summer semester. When students enroll in NTP 990, they should plan to enroll for the appropriate number of credits to reach the minimum required credits each semester to have full-time student status. <sup>3</sup>

Other advanced courses or additional research credits as recommended by the advisory committee to meet minimum credit requirements.

**Total Credits 51+**

<sup>1</sup> PSYCH 711 is a special topics course. The following topics under this course listing are approved to take and will count as a midlevel:

- Cognitive Neuroscience of Attention and Memory
- Introduction to Neural Network Modeling of Cognition

<sup>2</sup> Two PSYCH 733 courses (8 weeks each) must be taken to meet the Mid-level Systems/Behavioral Neuroscience requirement. The following course topics are approved:

- Cognitive Neuroscience of Reading and Dyslexia
- Knotty Problems in Psycholinguistics

<sup>3</sup> See "Credits Per Term Allowed" policy (p. ) for further information on full-time registration.