## **NEUROBIOLOGY, BA**

Neuroscience is the scientific study of the central (brain and spinal cord) and peripheral (nerves in body) nervous system. The Neurobiology major provides a rigorous education in neuroscience principles that prepares students for health-related, academic, and careers in health-related and scientific industries. Some of our graduates go on to consulting firms, law school, and nonprofit organizations. UW-Madison has more than 90 faculty engaged in neuroscience research. Undergraduates have access to this research faculty in formal classroom environments and through undergraduate research opportunities. Please see the Neurobiology major (https://neuromajor.wisc.edu) website for more information. See what graduates of the Neurobiology major are doing now (https:// neuromajor.wisc.edu/wp-content/uploads/sites/14/2024/03/Skills-and-Outcomes-NEUROBIOLOGY-major.pdf).

#### UNDERGRADUATE RESEARCH

Undergraduate Neurobiology students are fortunate to have the opportunity to work with some of the world's leading researchers. Many opportunities for laboratory research experience are available on campus for undergraduate students, and this type of experience is strongly encouraged. Such an experience provides students the opportunity to apply what they're learning and complement their knowledge with practical skills. Research experience is highly valued by employers, graduate programs, and professional schools. See the major website (https://neuromajor.wisc.edu/research/) for more information on how to get involved in undergraduate research.

## ABOUT THE CURRICULUM

The curriculum is designed to give students a solid foundation in basic biology, chemistry, physics, and mathematics before going on to study neuroscience at the molecular, cellular, systems, and cognitive levels. It is strongly encouraged that students engage in independent research in a neuroscience laboratory on campus. The Neurobiology Major Steering Committee is committed to increasing opportunities for all students with interests in neuroscience and helping students accomplish their academic goals at UW-Madison. This major is tailored to attract students from a diverse array of backgrounds. Please see the Neurobiology Major website (https://neuromajor.wisc.edu) for more information.

## HOW TO GET IN

get in

## HOW TO GET IN

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Requirements	Details	
How to get in		
	No application required. All students who meet the requirements listed below are eligible to declare. For information on how to declare, visit Advising & Careers.	
Courses required to get in	None	
GPA requirements to	None	

Credits required to get in	None
Other	None

Students who intend to major in Neurobiology may not combine this major ("double major") with the Biology major.

### REQUIREMENTS

## UNIVERSITY GENERAL **EDUCATION REQUIREMENTS**

All undergraduate students at the University of Wisconsin-Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (https://guide.wisc.edu/undergraduate/ #requirementsforundergraduatestudytext) section of the Guide.

General Education

- · Breadth-Humanities/Literature/Arts: 6 credits
- Breadth-Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
- · Breadth-Social Studies: 3 credits
- · Communication Part A & Part B \*
- Ethnic Studies \*
- Quantitative Reasoning Part A & Part B \*

\* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

## COLLEGE OF LETTERS & SCIENCE DEGREE REQUIREMENTS: BACHELOR OF ARTS (BA)

Students pursuing a bachelor of arts degree in the College of Letters & Science must complete all of the requirements below. The College of Letters & Science allows this major to be paired with either a bachelor of arts or a bachelor of science curriculum.

### **BACHELOR OF ARTS DEGREE REQUIREMENTS**

Mathematics Complete the University General Education Requirements for Quantitative Reasoning A (QR-A) and Quantitative Reasoning B (QR-B) coursework.

**Total Credits** 

UW-Madison

Experience

Quality of

Work

Language	<ul> <li>Complete the fourth unit of a language other than English; OR</li> <li>Complete the third unit of a language and the second unit of an additional language other than English.</li> </ul>
L&S Breadth	<ul> <li>12 credits of Humanities, which must include 6 credits of literature; and</li> <li>12 credits of Social Science; and</li> <li>12 credits of Natural Science, which must include one 3+ credit Biological Science course and one 3+ credit Physical Science course.</li> </ul>
Liberal Arts and Science Coursework	Complete at least 108 credits.
Depth of Intermediate/ Advanced work	Complete at least 60 credits at the intermediate or advanced level.
Major	Declare and complete at least one major.

## NON-L&S STUDENTS PURSUING AN L&S MAJOR

Complete at least 120 credits.

UW-Madison

• 30 credits in residence, overall; and

• 30 credits in residence after the 86th credit.

• 2.000 in Intermediate/Advanced level coursework at

• 2.000 in all coursework at UW-Madison

Non-L&S students who have permission from their school/college to pursue an additional major within L&S only need to fulfill the major requirements. They do not need to complete the L&S Degree Requirements above.

# REQUIREMENTS FOR THE MAJOR MATH, STATISTICS, CHEMISTRY & PHYSICS

Code	Title	Credits
Mathematics -com	plete one of the following:	5
MATH 211	Survey of Calculus 1	
MATH 217	Calculus with Algebra and Trigonometry II	
MATH 221	Calculus and Analytic Geometry 1	
Statistics -comple	te one of the following:	3
STAT 371	Introductory Applied Statistics for the Life Sciences	
STAT 340	Data Science Modeling II	
STAT/B M I 541	Introduction to Biostatistics	
<b>General Chemistry</b>	-complete one option:	5-9
CHEM 103	General Chemistry I	
& CHEM 104	and General Chemistry II	
CHEM 109	Advanced General Chemistry	
CHEM 115	Chemical Principles I	
& CHEM 116	and Chemical Principles II	
Organic Chemistry	-complete one of the following:	3-6
CHEM 341	Elementary Organic Chemistry	

T	Total Credits 24-33		
	PHYSICS 248	A Modern Introduction to Physics	
	PHYSICS 208	General Physics	
	PHYSICS 202	General Physics	
	PHYSICS 104	General Physics	
Second Semester General Physics Course - complete one course			
	PHYSICS 247	A Modern Introduction to Physics	
	PHYSICS 207	General Physics	
	PHYSICS 201	General Physics	
	PHYSICS 103	General Physics	
	irst Semester Genei ourse	ral Physics Course - complete one	
0	ption	first and second semester physics	8-10
	CHEM 343 & CHEM 345	Organic Chemistry I and Organic Chemistry II	

#### **BIOLOGY AND NEUROBIOLOGY**

Title

Complete 30 credits from General Biology, Neurobiology, Lab/Research Experience and Additional Elective (if required) sections.

**Credits** 

3

3

General Biology
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Code

ZOOLOGY/

PSYCH 523 PSYCH 454

Choose one option:			
Option A, Introductor	y Biology	10	
ZOOLOGY/ BIOLOGY/ BOTANY 151	Introductory Biology		
ZOOLOGY/ BIOLOGY/ BOTANY 152	Introductory Biology		
Option B, Biology Cor	e Curriculum	16-18	
BIOCORE 381	Evolution, Ecology, and Genetics		
BIOCORE 383	Cellular Biology		
BIOCORE 485	Principles of Physiology		
BIOCORE 587	Biological Interactions		
Plus two from:			
BIOCORE 382	Evolution, Ecology, and Genetics Laboratory		
BIOCORE 384	Cellular Biology Laboratory		
BIOCORE 486	Principles of Physiology Laboratory		
Option C, Animal Biol	ogy	10	
ZOOLOGY/ BIOLOGY 101	Animal Biology		
ZOOLOGY/ BIOLOGY 102	Animal Biology Laboratory		
BOTANY/ BIOLOGY 130	General Botany		
Neurobiology			
Code	Title	Credits	
Required Neurobio	Required Neurobiology Courses -complete all three		

Neurobiology

Behavioral Neuroscience

ZOOLOGY 500	Undergraduate Neurobiology 1 Seminar
	cience Coursework-choose 3 9
-	ootnoted course may apply to this
requirement. ANAT&PHY 335	Physiology <sup>1</sup>
ANAT&PHY 335 ANAT&PHY 435	
	Fundamentals of Human Physiology
AN SCI/ DY SCI 373	Animal Physiology <sup>I</sup>
BIOCHEM 501	Introduction to Biochemistry <sup>1</sup>
BIOCHEM 508	General Biochemistry II <sup>1</sup>
BIOCHEM/ NUTR SCI 645	Molecular Control of Metabolism and Metabolic Disease <sup>1</sup>
B M E 520	Stem Cell Bioengineering <sup>1</sup>
B M E 603	Special Topics in Bioinstrumentation and Medical Devices (Introduction to Neuroengineering)
CS&D 210	Neural Basis of Communication
CS&D 503	Neural Mechanisms of Speech, Hearing and Language
ED PSYCH 326	Mind, Brain and Education
ED PSYCH 506	Contemporary Issues in Educational
	Psychology (Brain & Behavioral Development)
ED PSYCH 506	Contemporary Issues in Educational Psychology (Ed Neuroscience and Creativity)
GENETICS 520	Neurogenetics
KINES 531	Neural Control of Movement
MED PHYS 651	Methods for Neuroimaging Research
NEURODPT 629	Molecular and Cellular Mechanisms of Memory
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience
NTP/NEURODPT/ PSYCH 611	Systems Neuroscience
NTP/ NEURODPT 640	Computational Neuroscience: From Single Cells to Whole Brain Models
NTP 666	Neuroscience of Consciousness and its Disorders
NTP 675	Special Topics (Functional Brain Imaging of Cognitive Disorders)
NTP 675	Special Topics (Molecular Mechanisms of Brain Damage)
NTP 675	Special Topics (Trauma and Physiology Therapy)
NTP 675	Special Topics (Neuroendocrinology)
NTP 675	Special Topics (Brain Mapping in Health and Disease: Applications)
NTP 677	Basic Sleep Mechanisms and Sleep Disorders: from Neurobiology to Sleep Medicine
PHARMACY 632	Neuroscience of Psychedelics

	PHM SCI 310	Drugs and Their Actions
	PHM SCI 521	Pharmacology I
	PSYCH 406	Psychology of Perception
	PSYCH 414	Cognitive Psychology
	PSYCH 505	Depth Topic in Biological Science (Cognitive Neuroscience: Bridging Mind and Brain)
	PSYCH 513	Hormones, Brain, and Behavior
	PSYCH 601	Current Topics in Psychology (Neural Basis of Cognitive Control)
	PSYCH 601	Current Topics in Psychology (Neuropsychology and Development)
	PSYCH 603	Epigenetics and the Brain
	PSYCH 612	Neuropharmacology
	ZOOLOGY 400	Topics in Biology (Brain Communication & Evolution)
	ZOOLOGY 400	Topics in Biology (Music and the Brain)
	ZOOLOGY 400	Topics in Biology (Neuroscience and Society)
	ZOOLOGY 400	Topics in Biology (Neural Movement Health & Disease)
	ZOOLOGY 400	Topics in Biology (Neuroanatomy and Systems)
	ZOOLOGY 444	Neuronal Cell Biology in Health and Disease
	ZOOLOGY 470	Introduction to Animal Development
	ZOOLOGY 555	Laboratory in Developmental Biology
	ZOOLOGY 603	Endocrinology
	ZOOLOGY 604	Computer-based Gene and Disease/Disorder Research Lab
	ZOOLOGY 611	Comparative and Evolutionary Physiology
	ZOOLOGY/ ANTHRO/ PSYCH 619	Biology of Mind
	ZOOLOGY 620	Neuroethology Seminar
	ZOOLOGY 655	Modeling Neurodevelopmental Disease
	ZOOLOGY/ NEURODPT/ PSYCH 674	Behavioral Neuroendocrinology Seminar

### Lab/Research Experience

Students are only required to take 1 of the 3 options below; Directed Study (recommended), Neuroscience Laboratory Course or Honors/Senior Thesis.

C	Code	Title	Credits
1	Directed Study—	3 credits from: <sup>2</sup>	
	ANATOMY 699	Independent Study	
	ANESTHES 699	Independent Study	
	BIOCHEM 699	Special Problems	
	BIOLOGY 699	Directed Studies	

ВМ	E 399	Independent Study
ВМО	LCHEM 699	Special Research Problems
CBE	699	Advanced Independent Studies
CHE	M 699	Directed Study
COM	1P BIO 699	Directed Study
CRB	699	Independent Study
CS&I	D 699	Directed Study
ED P	SYCH 470	Research Experience in Educational Psychology
ED P	SYCH 699	Independent Reading Undergrad
FAM	MED 699	Directed Study
GEN	ETICS 699	Special Problems
10 H	NCOL 699	Independent Study in Human Cancer Biology
KINE	S 399	Independent Study
KINE	S 699	Independent Study
MED	PHYS 699	Independent Reading or Research
MED	ICINE 699	Independent Study
MED	SC-V 669	Small Animal Cardiology Rotation
ММ	& I 699	Directed Study
MOL	. BIOL 699	Directed Studies in Molecular Biology
NEU	RSURG 699	Neurosurgery: Directed in Study in Research
NEU	ROL 699	Directed Research in Neurology
NEU	RODPT 699	Directed Study
NUT	R SCI 699	Special Problems
OBS	&GYN 699	Directed Study
ONC	OLOGY 699	Special Research Problems
OPH	THALM 699	Directed Study
PATH	1 699	Independent Study
PATH	H-BIO 699	Directed Study
PEDI	AT 699	Independent Study
PHM	COL-M 699	Independent Study
PHM	SCI 699	Advanced Independent Study
PHYS	SIOL 699	Independent Work
POP	HLTH 699	Independent Reading
PSYC	CH 621	Mentored Research and Seminar
PSYC	CH 699	Directed Study
PSYC	CHIAT 699	Independent Study
SUR	GERY 699	Independent Study
SUR	G SCI 699	Directed Study
ZOO	LOGY 699	Directed Studies in Zoology
2. Neur	oscience Lab	ooratory Course-one course:
ANA	T&PHY 435	Fundamentals of Human Physiology
BIOC	ORE 486	Principles of Physiology Laboratory
NTP/ NEU	RODPT 640	Computational Neuroscience: From Single Cells to Whole Brain Models
ZOO	LOGY 555	Laboratory in Developmental Biology
Z00	LOGY 604	Computer-based Gene and Disease/Disorder Research Lab
ZOO	LOGY 612	Comparative Physiology Laboratory

3. Honors/Senior T	hesis (two semesters):	
ZOOLOGY 681 & ZOOLOGY 682	Senior Honors Thesis and Senior Honors Thesis	
ZOOLOGY 691 & ZOOLOGY 692	Senior Thesis and Senior Thesis	
B M E 389 & B M E 489	Honors in Research and Honors in Research	

#### Additional Electives (if needed)

Students may take additional credits from the list of Distributed Neuroscience Coursework, Independent/Directed study, or the following list, to attain 30 credits in the major:

С	ode	Title	Credits
	ANAT&PHY 335	Physiology	
	ANAT&PHY 337	Human Anatomy	
	ANAT&PHY 338	Human Anatomy Laboratory	
	AN SCI/ DY SCI 362	Veterinary Genetics	
	AN SCI/ DY SCI 434	Reproductive Physiology	
	AN SCI/ F&W ECOL/ ZOOLOGY 520	Ornithology	
	AN SCI 610	Quantitative Genetics	
	BIOCHEM 507	General Biochemistry I	
	BIOCHEM/ NUTR SCI 510	Nutritional Biochemistry and Metabolism	
	BIOCHEM 601	Protein and Enzyme Structure and Function	
	BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	
	BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	
	BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	
	F&W ECOL 401	Physiological Animal Ecology	
	GENETICS 466	Principles of Genetics	
	GENETICS 545	Genetics Laboratory	
	GENETICS/ MD GENET 565	Human Genetics	
	GENETICS/ BIOCHEM/ MD GENET 620	Eukaryotic Molecular Biology	
	KINES 200	Introductory Neuroscience	
	KINES 227	Introduction to Clinical Anatomy of Human Movement	
	KINES 314	Physiology of Exercise	
	M M & I 301	Pathogenic Bacteriology	
	M M & I 341	Immunology	
	M M & I/ENTOM/ PATH-BIO/ ZOOLOGY 350	Parasitology	
	M M & I/ BIOCHEM 575	Biology of Viruses	

	MICROBIO 303	Biology of Microorganisms
	MICROBIO 304	Biology of Microorganisms Laboratory
	MICROBIO 450	Diversity, Ecology and Evolution of Microorganisms
	MICROBIO 470	Microbial Genetics & Molecular Machines
	MICROBIO/ SOIL SCI 523	Soil Microbiology and Biochemistry
	MICROBIO 526	Physiology of Microorganisms
	MICROBIO 527	Advanced Laboratory Techniques in Microbiology
	MICROBIO 551	Capstone Research Project in Microbiology
	PATH-BIO/ M M & I 528	Immunology
	PL PATH/M M & I/ ONCOLOGY 640	General Virology-Multiplication of Viruses
	MICROBIO/ BMOLCHEM 668	Microbiology at Atomic Resolution
	NTP/NEURODPT/ PSYCH 611	Systems Neuroscience
	NTP 660	Neuroscience & Public Policy Seminar
	NUTR SCI 431	Nutrition in the Life Span
	NUTR SCI 631	Clinical Nutrition I
	ONCOLOGY 401	Introduction to Experimental Oncology
	ONCOLOGY/ M M & I/ PL PATH 640	General Virology-Multiplication of Viruses
	PHM SCI 558	Laboratory Techniques in Pharmacology and Toxicology
	PSYCH 449	Animal Behavior
	PSYCH 450	Primate Psychology: Insights into Human Behavior
	PSYCH 505	Depth Topic in Biological Science (Comparative Psychology: What Animals Think)
	ZOOLOGY/ ANTHRO/ BOTANY 410	Evolutionary Biology
	ZOOLOGY 425	Behavioral Ecology
	ZOOLOGY 430	Comparative Anatomy of Vertebrates
	ZOOLOGY 470	Introduction to Animal Development
	ZOOLOGY/ GEOSCI 542	Invertebrate Paleontology
	ZOOLOGY 570	Cell Biology

# RESIDENCE AND QUALITY OF WORK

- 2.000 GPA in all major courses
- 2.000 GPA on 15 upper-level major credits, taken in residence<sup>3</sup>
- 15 credits in in the major, taken on the UW-Madison campus

## **HONORS IN THE MAJOR**

Students may declare Honors in the Neurobiology Major in consultation with their Neurobiology undergraduate advisor.

#### HONORS IN THE MAJOR REQUIREMENTS

To earn Honors in the Major in Neurobiology, students must satisfy both the requirements for the major (above) and the following additional requirements:

- Earn a 3.300 University GPA
- Earn a 3.300 GPA for all major courses
- Complete 14 credits, taken for Honors, with individual grades of B or better, while in residence, to include:
  - Two courses from PSYCH 454, ZOOLOGY/PSYCH 523, and ZOOLOGY 500
  - One course from the Distributed Neuroscience course lists (above), taken for honors credit
  - A two-semester Senior Honors Thesis, for a total of 6 credits, from:

Code	Title	Credits
BIOCHEM 681 & BIOCHEM 682	Senior Honors Thesis and Senior Honors Thesis	
BIOLOGY 681 & BIOLOGY 682	Senior Honors Thesis and Senior Honors Thesis	
B M E 389 & B M E 489	Honors in Research and Honors in Research	
CHEM 681 & CHEM 682	Senior Honors Thesis and Senior Honors Thesis	
CS&D 681 & CS&D 682	Senior Honors Thesis and Senior Honors Thesis	
GENETICS 681 & GENETICS 682	Senior Honors Thesis and Senior Honors Thesis	
H ONCOL 681 & H ONCOL 682	Senior Honors Thesis in Human Oncology 1 and Senior Honors Thesis in Human Oncology 2	
NUTR SCI 681 & NUTR SCI 682	Senior Honors Thesis and Senior Honors Thesis	
PSYCH 681 & PSYCH 682	Senior Honors Thesis and Senior Honors Thesis	
ZOOLOGY 681 & ZOOLOGY 682	Senior Honors Thesis and Senior Honors Thesis	

## **FOOTNOTES**

- Students may apply only one course toward the DNS elective requirement
- Only Directed Study courses taken **after**—and not concurrent with—the completion of an Introductory Biology sequence are accepted in the major.
- Courses accepted in the major that are Intermediate or Advanced are considered upper-level in this major.

## **UNIVERSITY DEGREE REQUIREMENTS**

Total Degree To receive a bachelor's degree from UW-Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

Residency

Degree candidates are required to earn a minimum of 30 credits in residence at UW-Madison. "In residence" means on the UW-Madison campus with an undergraduate degree classification. "In residence" credit also includes UW-Madison courses offered in distance or online formats and credits earned in UW-Madison Study Abroad/Study Away programs.

Quality of Work

Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

## LEARNING OUTCOMES

#### LEARNING OUTCOMES

- 1. Demonstrate understanding of basic concepts in biology, chemistry, mathematics, statistics, and physics.
- 2. Demonstrate understanding of the ionic basis for the neuronal membrane potential and action potential, and as well as the factors that determine neuronal excitability.
- 3. Demonstrate understanding of the basic mechanisms for synaptic transmission, neurotransmitter release, postsynaptic effects, and modulation of pre- and postsynaptic mechanisms. Predict how specific physiological and pathological conditions alter neuronal function at the cellular and synaptic levels.
- 4. Differentiate between examples of neuroplasticity at cellular, systems, and organismal levels.
- 5. Demonstrate understanding of central and peripheral neuroanatomy, basic functions of brain regions, and well-known neural pathways. Predict how localized disruptions of neuronal function alter behavior, motor function, or perception.
- 6. Demonstrate understanding of basic principles underlying motor function, sensory function (auditory, visual, touch, taste), emotion, autonomic regulation, and higher order cognitive functions (language, memory, attention, decision-making).
- 7. Demonstrate how experimental tools in neuroscience are used to address experimental questions, such as intra/extracellular recording, molecular biology techniques, immunohistochemical staining, fluorescent and electron microscopy, genetic manipulation, brain imaging, behavioral testing.

## FOUR-YEAR PLAN

## FOUR-YEAR PLAN

This Four-Year Plan is only one way a student may complete an L&S degree with this major. Many factors can affect student degree planning, including placement scores, credit for transferred courses, credits earned by examination, and individual scholarly interests. In addition, many students have commitments (e.g., athletics, honors, research, student organizations, study abroad, work and volunteer experiences) that necessitate they adjust their plans accordingly. Informed students engage in their own unique Wisconsin Experience by consulting their academic advisors, Guide, DARS, and Course Search & Enroll for assistance making and adjusting their plan.

The grid below is a suggested plan for finishing your Neurobiology major in 4 years. Please see an advisor for more information, as you may have completed some of the requirements listed.

#### Freshman

Fall	Credits Spring	Credits
Communication A	3 Ethnic Studies	3
Quantitative Reasoning A	3 MATH 221	5
Foreign Language (if required)	4 L&S Breadth	3
CHEM 103 or 109	4 CHEM 104	5
	14	16

#### **Sophomore**

Fall	Credits Spring	Credits
BIOLOGY/BOTANY/ ZOOLOGY 151 <sup>1</sup>	5 BIOLOGY/BOTANY/ ZOOLOGY 152	5
CHEM 343	3 CHEM 345	3
INTER-LS 210 (optional)	1 Social Science Breadth	3
Social Science Breadth	3 PHYSICS 207 <sup>2</sup>	5
	12	16

#### Junior

Fall	Credits Spring	Credits
Declare the Major <sup>3</sup>	PSYCH 454	3-4
ZOOLOGY/PSYCH 523	3 Distributed Neuroscience Course	2-4
STAT 371	3 L&S Breadth	3
L&S Breadth	3 Elective	3
PHYSICS 208	5 Lab Research	3
Lab Research <sup>4</sup>	3	
	17	16

#### Senior

Fall	Credits Spring	Credits
Distributed Neuroscience Course	3-4 ZOOLOGY 500	1
Social Science Breadth	3 Distributed Neuroscience Course	3
Electives	6 L&S Breadth	3
Lab Research	3 Social Science Breadth	3
	Lab Research	3
	16	13

#### **Total Credits 120**

- There are several options for fulfilling the introductory biology requirement. See listed Requirements.
- There are several options for fulfilling the Physics requirement. See listed Requirements.
- Students must declare a major by the time they reach 86 credits.

4 It is recommended that students in the Neurobiology major participate in multiple semesters of research.

## **ADVISING AND CAREERS**

## ADVISING AND CAREERS DECLARE OR CANCEL THIS MAJOR

You must first make an appointment to meet with a Neurobiology advisor; use the Starfish link for the advisor based on your last name.

Students majoring in Neurobiology may not combine this major with the Biology major in either the College of Agricultural and Life Sciences or in the College of Letters and Science.

Students with last names beginning with A-Kh, see Bob Wiedenhoeft. Students with last names beginning with Ki-N, see Catherine Auger. Students with last names beginning with O-Z, see India Viola.

#### **SUCCESSWORKS**

SuccessWorks (https://successworks.wisc.edu/) at the College of Letters & Science helps you turn the academic skills learned in your classes into a fulfilling life, guiding you every step of the way to securing jobs, internships, or admission to graduate school.

Through one-on-one career advising, events, and resources, you can explore career options, build valuable internship and research experience, and connect with supportive alumni and employers who open doors of opportunity.

- What you can do with your major (https://successworks.wisc.edu/ what-you-can-do-with-your-major/) (Major Skills & Outcomes Sheets)
- Make a career advising appointment (https://successworks.wisc.edu/ make-an-appointment/)
- Learn about internships and internship funding (https://successworks.wisc.edu/finding-a-job-or-internship/)
- Try "Jobs, Internships, & How to Get Them," (https://successworks.wisc.edu/canvas/) an interactive guide in Canvas for enrolled UW-Madison students