Bachelor of Science in Neuroscience

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<th>Years 3 &amp; 4</th>
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<tr>
<td><strong>Chemistry Courses</strong></td>
<td><strong>Biology Courses</strong></td>
<td><strong>Physics Courses</strong></td>
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<tr>
<td>Principles of Chemistry I (CHEM:1110)</td>
<td>Introduction to Behavioral Neuroscience (PSY: 2701)</td>
<td>College Physics I (PHYS: 1511)</td>
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<td>Principles of Chemistry II (CHEM:1120)</td>
<td>Foundations of Biology (BIOL:1411)</td>
<td>College Physics II (PHYS: 1512)</td>
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<tr>
<td>Research Methods and Data Analysis I (PSY: 2811)</td>
<td>Introduction to Cognitive Neuroscience (PSY: 2975)</td>
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<td>Fall &amp; Spring</td>
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<tr>
<td>Research Methods and Data Analysis II (PSY: 2812)</td>
<td>Animal Physiology (BIOL: 3343)</td>
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<td>Fall &amp; Spring</td>
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<td>Neurobiology (BIOL: 3253)</td>
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<td>Developmental Neurobiology (BIOL: 3753)</td>
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<td>Biochemistry</td>
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<td>Neuroscience Elective</td>
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**Math Courses**

Calculus

*See reverse side for course options and additional information.*
Requirements

A. Note: We strongly encourage Neuroscience Majors to choose PSY:1001, Elementary Psychology, to fulfill their Social Sciences General Education course requirement. This can be taken concurrently with PSY:2701 during the first semester, if possible. Credit for Advanced Placement Psychology taken as a high school student may fulfill this Social Sciences General Education requirement. Please see your advisor.

B. Choose one of the following options:
   - Calculus for the Biological Sciences (MATH:1460, 4 s.h., F and S; RECOMMENDED)
   - Calculus 1 (MATH: 1850, 4 s.h., F and S)
   - Engineering Mathematics I: Single Variable Calculus (MATH:1550, 4 s.h., F and S)

C. Note that these two semesters of College Physics could be completed any time. However, it may be helpful if College Physics II is taken concurrently or prior to Neurobiology (BIOL:3253) due to its discussion of electricity.

D. Choose one of the following laboratory courses:
   - Animal Behavior with Laboratory (BIOL:3244, 5 sh for course + laboratory, Fall only. Note that you must enroll in both the lab and the lecture).
   - Neurobiology Laboratory (BIOL:3656, 4 sh, Spring only)

E. Choose one of the following options:
   - 1-course option: Biochemistry (BIOC: 3110, 3 sh, Fall and Spring. Note that BIOC:3110 is an in-person course each Fall and an online-only course each Spring).
   - 2-course option: Biochemistry and Molecular Biology I and II (BIOC: 3120, 3 sh, Fall and Spring, AND BIOC: 3130, 3 sh, Fall and Spring. Note that BIOC:3120 is an in-person course each Fall and an online-only course each Spring, while BIOC:3130 is an online-only course each Fall and an in-person course each Spring).
   - Note that Biochemistry could be taken at any point after Principles of Chemistry II, though it is recommended to take it in the 3rd or 4th year.

F. Choose three of the following elective courses. Note that these do not need to be taken in the 4th year. As long as prerequisites have been completed, students may take electives earlier.
   - Cell Biology (BIOL:2723, 3 s.h., F and S)
   - Diversity of Form and Function (BIOL:1412, 4 s.h., F and S)
   - Endocrinology (BIOL:2254, 3 s.h., F)
   - Fundamental Genetics (BIOL:2512, 4 s.h., F and S)
   - Genes and Development (BIOL:4333, 3 s.h., S)
   - Mechanisms of Aging (BIOL:2603, 3 s.h. F)
   - Neurophysiology (BIOL:4353, 3 s.h. S)

For the following courses, please check MyUI for availability:
   - Aging Mind and Brain (PSY:3065, 3 s.h.)
   - Motivation, Addiction, and the Brain (PSY:3240, 3 s.h.)
   - Neurobiology of Stress (PSY:3270, 3 s.h.)
   - Neuroethics (PHIL: 3510, 3 s.h.)
   - Neuroscience of Learning and Memory (PSY:3250, 3 s.h.)
   - Psychology of Learning (PSY:3040, 3 s.h.)
   - Psychopharmacology (PSY:3230, 3 s.h.)

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