# 2018 - 2019 Major Map
## Neuroscience, BS

**School/College:** College of Liberal Arts and Sciences  
**LABMENBS**

## Term 1 0 - 14 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHS 101: The ASU Experience for Health Solutions Students OR LIA 101: Student Success in the College of Liberal Arts and Sciences</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY 101: Introduction to Psychology (SB)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>BIO 181: General Biology I (SQ) OR BIO 281: Conceptual Approaches to Biology for Majors I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>MAT 251: Calculus for Life Sciences (MA) OR MAT 265: Calculus for Engineers I (MA) OR MAT 270: Calculus with Analytic Geometry I (MA)</td>
<td>3-4</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 14-15

- An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses.
- Mathematics Placement Assessment score determines placement in mathematics course.
- Students not testing into MAT 251, MAT 265 or MAT 270 should complete MAT 117 or MAT 170 and take subsequent MAT course in term 2 instead of an elective.
- ASU 101 or College specific equivalent First Year Seminar required of all freshman students.
- Students are encouraged to use electives to complete prerequisites for upper division track courses.

## Term 2 14 - 31 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 113: General Chemistry I (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PSY 230: Introduction to Statistics (CS) OR STP 231: Statistics for Life Science (CS) OR STP 226: Elements of Statistics (CS)</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>BIO 182: General Biology II (SG) OR BIO 282: Conceptual Approaches to Biology for Majors II</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 17

- Students planning to complete courses in the Computational Neuroscience track should complete MAT 265 or MAT 270 no later than term 2.
- Select your career interest area and play me3@asu.edu.

## Term 3 31 - 44 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 116: General Chemistry II (SQ)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-Behavioral Sciences (SB) AND Global Awareness (G)</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 13

- Students are encouraged to consult with an academic advisor to select upper division track courses and use electives to complete appropriate prerequisites for their chosen course of study.
- Create a first draft resume.

## Term 4 44 - 60 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Term hours subtotal:**
**BIO 360: Animal Physiology**
3 C

**PSY 290: Research Methods (L or SG)**
4 C

**Humanities, Arts and Design (HU) AND Historical Awareness (H)**
3 C

Complete 2 courses:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>6</td>
</tr>
</tbody>
</table>

Term hours subtotal: 16

**Term 5 60 - 75 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO 476: Cellular and Molecular Neuroscience</strong></td>
<td>3 C</td>
</tr>
<tr>
<td><strong>PSY 325: Physiological Psychology</strong></td>
<td>3 C</td>
</tr>
<tr>
<td>Upper Division Social-Behavioral Sciences (SB) OR Upper Division Humanities, Arts and Design (HU)</td>
<td>3</td>
</tr>
<tr>
<td>Elective OR <strong>BIO 484: Internship OR MIC 484: Internship OR MBB 484: Internship</strong></td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Term hours subtotal: 15

**Term 6 75 - 91 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO 477: Systems and Behavioral Neuroscience</strong></td>
<td>3 C</td>
</tr>
<tr>
<td><strong>PSY 426: Neuroanatomy</strong></td>
<td>4 C</td>
</tr>
<tr>
<td>Upper Division Literacy and Critical Inquiry (L)</td>
<td>3</td>
</tr>
</tbody>
</table>
| Complete 2 courses:
  Upper Division Track electives | 6 C |

**Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).**

Term hours subtotal: 16

**Term 7 91 - 106 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIO 400: Topics in Neuroscience OR KIN 400: Topics in Neuroscience OR PSY 400: Topics in Neuroscience OR SHS 400: Topics in Neuroscience</strong></td>
<td>3</td>
</tr>
</tbody>
</table>
| Complete 2 courses:
  Upper Division Track electives | 6 C |
| Complete 2 courses:
  Elective | 6 |

Term hours subtotal: 15

**Term 8 106 - 120 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
</table>
| Complete 2 courses:
  Upper Division Track electives | 5 C |
| Complete 2 courses:
  Upper Division Elective | 3 |
| Complete 2 courses:
  Elective | 6 |

Term hours subtotal: 14

- **Explore an internship or volunteer experience.**
- **Visit Career and Professional Development Services and meet with a career advisor for assistance with career planning and networking.**

**Notes**

- Work with an advisor to discuss upper division track electives that best fit your personal plan of study.
- Elective credit hours can be used to complete prerequisites for upper division track electives.
- Develop your skills.

- Students will complete a minimum of 17 credit hours in any combination of upper division track courses.
- Explore options for graduate study.
- Discuss letters of recommendation with faculty.
- Develop your professional online presence.

**Term 8 106 - 120 Credit Hours Necessary course signified by ⭐**

<table>
<thead>
<tr>
<th>Hours</th>
<th>Minimum Grade</th>
</tr>
</thead>
</table>
| Complete 2 courses:
  Upper Division Track electives | 5 C |
| Complete 2 courses:
  Upper Division Elective | 3 |
| Complete 2 courses:
  Elective | 6 |

Term hours subtotal: 14

- Students will complete a minimum of 17 credit hours in any combination of upper division track courses.
- Complete an in person or virtual practice interview.
- Students not moving on to graduate work may wish to apply for full-time career opportunities.
• The BS in neuroscience is currently available only as a concurrent degree to ASU students pursuing other majors. It cannot be taken as a stand-alone degree. For more information on how to add this major as a concurrent degree program, students should contact an academic advisor in their major, the Department of Psychology or the School of Life Sciences.
• Upper division Track Courses may have additional prerequisites. Students are encouraged to plan ahead and complete any prerequisites as electives.

### Behavioral Neuroscience
- BIO 331: Animal Behavior
- PSY 320: Learning and Motivation
- PSY 420: Analysis of Behavior (L)
- PSY 470: Psychopharmacology
- PSY 498: Behavioral Neuroendocrinology
- PSY 498: Neurobiology Learning and Memory

### Cognitive Behavioral Neuroscience
- SHS 310: Anatomical and Physiological Bases of Speech
- SHS 311: Hearing Science
- SHS 350: Peering into the Human Brain
- SHS 367: Language Science (SB)
- SHS 375: Speech Science
- SHS 465: Speech and Language Acquisition (SB)
- SHS 485: Acquired Speech and Language Disorders

### Brain, Mind and Behavior
- PSY 320: Learning and Motivation
- PSY 324: Memory and Cognition
- PSY 498: Computational Cognitive Neuroscience

**Notes:**
- Please keep in mind that the applicability of a specific transfer course toward an ASU degree program depends on the requirements of the department, division, college or school in which you are enrolled at ASU. Transfer agreements that guarantee the completion of university level requirements do not necessarily meet college and major requirements. Please consult with an advisor for more information.

**Total Hours:** 120
**Upper Division Hours:** 45 minimum
**Major GPA:** 2.00 minimum
**Cumulative GPA:** 2.00 minimum
**Total hrs at ASU:** 30 minimum
**Hrs Resident Credit for Academic Recognition:** 56 minimum
**Total Community College Hrs:** 64 maximum
**Total College Residency Hrs:** 12 minimum

**General University Requirements Legend**

**General Studies Core Requirements:**
- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)
General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2018 - 2019 academic year.