# 2019 - 2020 Major Map
## Neuroscience, BS

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

<table>
<thead>
<tr>
<th>Term 1  0 - 14 Credit Hours Critical course signified by 1</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

<table>
<thead>
<tr>
<th>Term 2 14 - 31 Credit Hours Critical course signified by 1</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>
<tr>
<td>Complete ENG 101 OR ENG 105 OR ENG 107 course(s).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 17

<table>
<thead>
<tr>
<th>Term 3 31 - 44 Credit Hours Critical course signified by 1</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>
<tr>
<td>Complete First-Year Composition requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Mathematics (MA) requirement.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Term hours subtotal: 13

<table>
<thead>
<tr>
<th>Term 4 44 - 60 Credit Hours Critical course signified by 1</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 360: Animal Physiology</td>
<td>3</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>PSY 290: Research Methods (L or SG)</td>
<td>4</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

- An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses.
- Mathematics Placement Assessment score determines placement in mathematics course.
- LIA 101, ASU 101, or College specific equivalent First Year Seminar required of all freshman students.
- Select your career interest area and play me3@ASU
- Students planning to complete courses in the Computational Neuroscience track should complete MAT 265 or MAT 270 no later than term 2.
- Create a resume & Handshake account with the Career & Professional Development Center
- Attend a Pre-Health 101 Session
- Explore extracurriculars (i.e. service learning, community service, internships, research, student involvement, shadowing, etc.)
Humanities, Arts and Design (HU) AND Historical Awareness (H) 3

Complete 2 courses:

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

Term hours subtotal: 16

**Term 5 60 - 75 Credit Hours Necessary course signed by ★**

**Term 6 75 - 91 Credit Hours Necessary course signed by ★**

**Term 7 91 - 106 Credit Hours Necessary course signed by ★**

**Term 8 106 - 120 Credit Hours Necessary course signed by ★**

• Visit Career and Professional Development Services and meet with a career advisor for assistance with career planning and networking.

• 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.

• Meet with your advisor to discuss ways to maximize your remaining time at ASU (i.e. pre-health; 4+1 Masters Programs; study abroad)

• Thinking about graduate school? Consider registering for a grad school test prep course.

• Apply for full-time career opportunities.

• Students will complete a minimum of 17 credit hours in any combination of upper division track courses.

• Thinking about graduate school? Consider registering for a grad school test prep course.

• Apply for full-time career opportunities.

• Students will complete a minimum of 17 credit hours in any combination of upper division track courses.

• Gather professional references

• Apply to graduate and post-baccalaureate programs.

• Research employment opportunities.

• Meet with your advisor to verify remaining degree requirements have been met prior to Term 8

• 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.
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

### Sensormotor Control and Physical Rehabilitation
- KIN 345: Motor and Developmental Learning
- KIN 421: Human Motor Control (L)
- KIN 422: Motor Control in Special Populations (L)
- KIN 423: Motor Control and Aging (L)

### Cognitive Behavioral Neuroscience
- SHS 310: Anatomical and Physiological Bases of Speech
- SHS 311: Hearing Science
- 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
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 2019 - 2020 academic year.