## NEUROSCIENCE - BS, TRANSLATIONAL AND PRECLINICAL NEUROSCIENCE TRACK

### Program Requirements

#### First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>BIOL 111</td>
<td>Introductory Biology I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM 119</td>
<td>Fundamentals of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>NRSC 101</td>
<td>Neuroscience Overview</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 147</td>
<td>Calculus I for Biological Sciences</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MATH 151</td>
<td>Engineering Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 171</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>BIOL 112</td>
<td>Introductory Biology II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM 120</td>
<td>Fundamentals of Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PSI 107</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 148</td>
<td>Calculus II for Biological Sciences</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MATH 152</td>
<td>Engineering Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 172</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

#### Second Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>CHEM 227</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 237</td>
<td>Organic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHYS 201</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>POLS 206</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>VIBS 277/ NRSC 277</td>
<td>Essential Neuroscience - From Molecules to Nervous Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>BIOL 213</td>
<td>Molecular Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 228</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM 238</td>
<td>Organic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHYS 202</td>
<td>College Physics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>American history (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a>)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Elective</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

#### Third Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>BICH 410</td>
<td>Comprehensive Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PBSI 235</td>
<td>Introduction to Behavioral and Cognitive Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>STAT 302</td>
<td>Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>American history (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a>)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Language, philosophy and culture (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a>)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>BICH 411</td>
<td>Comprehensive Biochemistry II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GENE 302 or GENE 320/ BIMS 320</td>
<td>Principles of Genetics or Biomedical Genetics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>POLS 207</td>
<td>State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NRSC 300-499</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PBSI 300-499</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Communication (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication</a>)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

#### Fourth Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>VIBS 450/ NRSC 450</td>
<td>Mammalian Functional Neuroanatomy</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Creative arts (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a>)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concentration elective</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>General elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>BICH 434/ NRSC 434</td>
<td>Regulatory and Behavioral Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 435</td>
<td>Laboratory for Regulatory and Behavioral Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concentration elective</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>General elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

| Total Semester Credit Hours | 120 |

1. Must make a C or better
2. Students should complete core areas in consultation with an academic advisor, as some professional schools require specific courses.
3. Choose the NRSC-TPC concentration electives in consultation with an academic advisor. Select 6 hours from the following: BIMS 485, BIMS 481, BIOL 495, GENE 314, KINE 406, NRSC 201/VIBS 201, NRSC 401/VIBS 401, NRSC 407/VIBS 407, NRSC 485, NRSC 491, PBSI 485, PBSI 491, VIBS 102, VIBS 343, VIBS 401, VIBS 408, VIBS 422,
VIBS 424/VTTP 424, VIBS 443, VIBS 447, VIBS 485, VTPP 323, VTPP 485, VTPP 491.

4 Select any 100-499 course not used elsewhere (except Math 102-104)
   Only one KINE 199 is allowed.
5 Select from any 300-499 course not used elsewhere.
6 GENE 302 must be taken concurrently with GENE 314 lab. The lab is an NRSC-TPC elective.

The graduation requirements include a requirement for 3 hours of international and cultural diversity courses and 3 hours of cultural discourse courses. A course satisfying a core category, a college/department requirement, or a free elective can be used to satisfy this requirement. See academic advisor.

Graduation requirements require 2 courses with the Writing Intensive (UWRT), or 1 course with the Writing Intensive (UWRT) and 1 course with the Oral Communication (UCRT) attribute. These courses are designed to be TPC concentration electives (ex. VIBS 102, VIBS 408, VIBS 443, VIBS 447, BIMS 491, BIOL 495) and should be chosen in consultation with an academic advisor. Writing/Communication intensive courses must be taken in the student’s major to count towards graduation.