### PROPOSED CHANGES TO DEGREE PROGRAMS IN THE UNDERGRADUATE CATALOG 2014-2016

**Type of Change**
- [ ] Nonacademic Change
- [ ] Academic Change
- [x] Degree Program Change

---

1. **NAME OF DEGREE PROGRAM:**
   Bachelor of Science in Neuroscience

2. **IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT NEAL ARMSTRONG WHO WILL DETERMINE WHETHER SACS-COC APPROVAL IS NEEDED.**
   - Is this a new degree program? Yes or no? **No.**
   - Does the program offer courses that will be taught off campus? Yes or no? **No.**
   - Will courses in this program be delivered electronically? Yes or no? **No.**

---

3. **EXPLAIN CHANGE TO DEGREE PROGRAM:**
   1. **Option I:**
      - Addition of Neuroscience 337 as an alternative to Biology 337.
      - Addition of Neuroscience 377 as an alternative to Biology 377.

   2. **Proposed Option II:** An additional degree option under the B.S. in Neuroscience titled Honors. Students in the Dean’s Scholars Program who wish to pursue the study of neuroscience will complete this option.

---

3a. **Indicate pages in the undergraduate catalog where changes will be made.**
   1. pages 512-513.

---

4. **GIVE A DETAILED RATIONALE FOR CHANGE. INDIVIDUAL CHANGES SHOULD BE LISTED SEPARATELY.**
   1. **Option I:**
      - The Division of Neurobiology created a topics course, NEU 337, to have flexibility to offer occasional topics without the need to use the BIO 337 topics course number. Several of the topics currently offered under BIO 337 will now be offered under NEU 337.
      - The Division of Neurobiology created an undergraduate research course, NEU 377. Neuroscience students in both options will participate in research.

   2. **Proposed Option II:** The Honors degree option will provide neuroscience students in the Dean’s Scholars Program early exposure to research, honors science courses, and critical reading and persuasive writing to prepare them for conducting research and writing a thesis under faculty supervision.

---

5. **SCOPE OF PROPOSED CHANGE**

   5a. **Does this proposal impact other colleges/schools? If yes, then how?** **No.**
      - If yes, impacted schools must be contacted and their response(s) included:
      - Person communicated with:
      - Date of communication:

---

Last modified June 2011. Submit form electronically to Office of the General Faculty and Faculty Council- fc@austin.utexas.edu
Response:

5b. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain: No.

If yes, undergraduate studies must be informed of the proposed changes and their response included:

Person communicated with:
Date of communication:
Response:

5c. Will this proposal change the number of hours required for degree completion? If yes, explain:

6. COLLEGE/SCHOOL APPROVAL PROCESS
Department approval date: August 28, 2012
College approval date:
Dean approval date:

Include proposed catalog copy below. The proposed text should be based on the text of the current catalog available at [http://www.utexas.edu/faculty/council/pages/catalog_chgs/catcopy.html](http://www.utexas.edu/faculty/council/pages/catalog_chgs/catcopy.html). Strike through and replace only the specific language to be changed. For questions on completing this section, please contact Anita Ahmadi, fc@austin.utexas.edu, 471-5936 or Brenda Schumann, brenda.schumann@austin.utexas.edu, 475-7654.

Bachelor of Science in Neuroscience

The Bachelor of Science degree in Neuroscience provides a strong foundation in the core sciences and related mathematical disciplines, along with a three-course specialization in one of six areas: biology, chemistry, computer science, mathematics, physics, or psychology. Distinctive features of the program include an emphasis on developing the quantitative, statistical, mathematical, and computational skills required in neuroscience, and meaningful hands-on laboratory experience.

Prescribed Work **Common to All Options**

All students pursuing an undergraduate degree must complete the University’s Core Curriculum. The core includes courses in language, literature, social sciences, natural sciences, and fine arts.

In addition, students seeking the Bachelor of Science in Neuroscience must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.

1. Two courses with a writing flag. One of these courses must be upper-division. Courses with a writing flag are identified in the *Course Schedule* available at
http://registrar.utexas.edu/schedules. They may be used simultaneously to fulfill other requirements, unless otherwise specified.

2. **At least twenty-one semester hours of upper-division coursework, including eighteen semester hours in biology and neuroscience, must be completed in residence at the University. All students must complete at least thirty-six semester hours of upper-division coursework.**

### Option I: Neuroscience

4. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.
5. Chemistry 301 or 301H, 302 or 302H, and 204.
6. Biology 311C and 311D, or Biology 315H and 325H, and Biology 206L.
7. Three additional majors-level courses selected from one of the following supporting disciplines:
   a. Biology: Biology 325 or 325H, 320, 344, and 349.
   b. Chemistry: Chemistry 328M and 128K, 328N and 128L, 339K or 369, 353 or 353M.
   c. Computer Science: Computer Science 312, 314, Statistics and Scientific Computation 335, 374E.
10. Twelve-semester-hours of laboratory courses chosen from the following: Biology 365L, 366L, 366P, 366S, and 377 or Neuroscience 377. The same section of Biology 377, Undergraduate Research, or Neuroscience 377, Undergraduate Research, may not count toward requirement 11.12 if used to fulfill this requirement.
12. Three additional semester-hours of either Biology 377 (Undergraduate Research) or Neuroscience 377 (Undergraduate Research) or Biology 379H (Honors Tutorial Course). The research topic in Biology 377 or Neuroscience 377 or Biology 379H must relate to neuroscience and be approved in advance by the faculty adviser.
13. At least twenty-one semester hours of upper-division coursework, including eighteen semester hours in biology and neuroscience, must be completed in residence at the University. All students must complete at least thirty-six semester hours of upper-division coursework.

13. Enough additional coursework to make a total of 120 semester hours.

**Option II: Neuroscience Honors**

3. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and one of the following: Physics 301 and 101L; or Physics 316 and 116L. Credit earned by examination may not be counted toward this requirement.

4. Three hours of statistics chosen from the following: Statistics and Scientific Computation 321, 325H, or 328M. Other statistics courses may be approved by the departmental honors adviser.

5. One of the following: Physics 315 and 115L, 316 and 116L, 338K, 345, 355. Courses counted toward requirement 3 may not also be counted toward requirement 5.

6. Chemistry 204.

7. Chemistry 128K, 128L, 328M, and 328N.

8. Biology 320 or 344.


11. Neuroscience 335.


14. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.

15. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars.

16. Two semesters of Biology 379H.

17. Eight additional semester hours of coursework approved by the departmental honors adviser.

18. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.

19. Enough additional coursework to make a total of 120 semester hours.

**Special Requirements**

Students must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least C- in each mathematics and science course.
required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in *General Information* available at [http://registrar.utexas.edu/catalogs/](http://registrar.utexas.edu/catalogs/).

To graduate under option II, students must remain in good standing in the Dean’s Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and must present their research in an approved public forum, such as the college’s annual Undergraduate Research Forum.
Differences between Option I and proposed Option II:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Option I</th>
<th>Option II: Honors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic chemistry sequence</td>
<td>Not required; is a choice for supporting discipline</td>
<td>Yes</td>
</tr>
<tr>
<td>Genetics</td>
<td>Not required; is a choice for BIO supporting discipline</td>
<td>Yes</td>
</tr>
<tr>
<td>BIO 320 or 344; 349; and 370</td>
<td>Not required; is a choice for supporting discipline</td>
<td>Yes</td>
</tr>
<tr>
<td>Supporting discipline (select 3 courses from 1 field; choice of 6 fields)</td>
<td>Yes</td>
<td>Not required; instead, both CH and BIO sequences must be taken</td>
</tr>
<tr>
<td>NEU 366M and 366N</td>
<td>Yes</td>
<td>Not required; instead, incorporated into list of additional neuroscience as choices</td>
</tr>
<tr>
<td>Upper-division lab from approved list (in addition to BIO 377 and 379H)</td>
<td>12 hours</td>
<td>9 hours</td>
</tr>
<tr>
<td>BIO 206L</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Research</td>
<td>3 hours (BIO 377 or 379H)</td>
<td>6 hours (2 semesters of BIO 379H)</td>
</tr>
<tr>
<td>Dean’s Scholars courses: RHE 309S and 6 hrs in Liberal Arts and Fine Arts</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Free electives to achieve 120 hours</td>
<td>13 hours</td>
<td>8 hours (must be approved)</td>
</tr>
</tbody>
</table>