PROPOSED CHANGES TO THE _BS IN NEUROSCIENCE_ DEGREE PROGRAM IN THE COLLEGE/SCHOOL OF __NATURAL SCIENCES__ SECTION IN THE UNDERGRADUATE CATALOG 2014-2016 or LAW SCHOOL CATALOG 2014-2016

Type of Change | ___ Academic Change | ___ Degree Program Change (THECB² form required)

1. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT NEAL ARMSTRONG TO DETERMINE IF SACS-COC APPROVAL IS REQUIRED.
   • Is this a new degree program? Yes___ No_X_
   • Does the program offer courses that will be taught off campus? Yes___ No_X_
   • Will courses in this program be delivered electronically? Yes___ No_X_

2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE (include page numbers in the catalog where changes will be made):

1. Option I:
   a. Addition of Neuroscience 337 as an alternative to Biology 337.
   b. Addition of Neuroscience 377 as an alternative to Biology 377.
   **Rationale:**
   a. 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.
   b. The Division of Neurobiology created an undergraduate research course, NEU 377. Neuroscience students in both options will participate in research.

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.
   **Rationale:**
   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.

3. Option I, 3
   Drop SSC 321, Intro to Probability and Statistics, and add SDS 328M, Biostatistics.
   **Rationale:** After discussion with SDS representatives, the content of SDS 328M was deemed to be more appropriate to neuroscience than that of SSC 321.

4. Option I, 7b
   Remove CH 339K and change CH 369 to BCH 369.
   **Rationale:** The Dept of Molecular Biosciences has deleted CH 339K from the course inventory. Non-biochemistry majors will take BCH 369.

5. Option 1, 7d
   Add M 427L, Advanced Calculus for Applications II.
   **Rationale:** This is a sister course of M 427K, which is already a choice in this option.

6. Option 1, 7d
   Add SSC 328M as an alternative to SSC 321 or M 362K.
   **Rationale:** The content and skills students gain through M 358K and SSC 328M are not sufficiently differentiated to allow both courses to fulfill degree requirements.

7. Option I, 9
   Remove NEU 366N.
Rationale: The department could not obtain an instructor for the course, so it cannot be required in the degree plan. There are plans to teach the course in the future as instructors become available. Consequently, the course is added as another choice for the requirement of 6 hours of upper-division neuroscience chosen from the approved lists in requirement 11.

8. Option I, 10
Rationale: With the creation of the Department of Neuroscience, these courses are changing to the neuroscience field of study.

9. Option I, 11
Remove BIO 337 (Topics: Sensory Neuroscience; Genetic Analysis of Behavior and Disease); and add NEU 337 (Topics: Sensory Neuroscience; Genetic Analysis of Behavior and Disease). Remove BIO 337 (Topics: Computational Neuroscience; Foundations of Neuroimaging; Visual Neuroscience; and Evolutionary Neuroscience), 366F. Add NEU 365N, 365T, 365W, 366C, 366D, 366E, 366N, 367F, 466G, 367V, additional approved NEU 337 topics, and Biology 365D.
Rationale: With the creation of the Department of Neuroscience, most of these courses are changing to the neuroscience field of study. BIO 365D, Principles of Drug Action, and NEU 367V, Evolutionary Neurobiology, are suitable choices for this requirement.

10. Option I, 12
Remove BIO 377 and 379H; add NEU 377 and 379H.
Rationale: With the creation of the Department of Neuroscience, NEU majors will take NEU research and honors thesis courses.

11. Option II, 12
Remove BIO courses and add NEU courses.
Rationale: With the creation of the Department of Neuroscience, most of these courses are changing to the neuroscience field of study.

12. Option II, 13
Remove BIO courses and add NEU courses (see Option I, 11, above)
Rationale: With the creation of the Department of Neuroscience, most of these courses are changing to the neuroscience field of study. BIO 365D, Principles of Drug Action, and NEU 367V, Evolutionary Neurobiology, are suitable choices for this requirement.

13. Option II, 16
Remove BIO 379H; add NEU 379H.
Rationale: With the creation of the Department of Neuroscience, NEU majors will take NEU honors thesis course.

3. SCOPE OF PROPOSED CHANGE
   a. Does this proposal impact other colleges/schools? Yes___ No_X__
      If yes, then how?
   b. Will students in other degree programs be impacted (are the proposed changes to courses commonly taken by students in other colleges)? Yes_X__ No___
      If yes, then how? Replacing SSC 321 with SDS 328M will change enrollment patterns in these courses. Currently, we have 100 students in our entry-level course (NEU 330), which leads us to predict that up to 100 of our students will enroll in SDS 328M in 2014-15.
   c. Will students from your college take courses in other colleges? No.

If 3 a, b, or c was answered with yes:
   How many students do you expect to be impacted? 100
   Impacted schools must be contacted and their response(s) included:
   Person communicated with: Matthew Hersh, Specialist
d. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:
   If yes, undergraduate studies must be informed of the proposed changes and their response included:
   Person communicated with:
   Date of communication:
   Response:

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

4. COLLEGE/SCHOOL APPROVAL PROCESS
Department approval date: August 28, 2013; September 12, 2013
College approval date:
Dean approval date:

PROPOSED NEW CATALOG TEXT:

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

3. Mathematics 408C and 408D, or 408N, 408S, and 408M; Mathematics 362K or Statistics and Scientific Computation 321 Statistics and Data Sciences 321 or 328M.

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.
   c. Computer Science: Computer Science 312, 314, Statistics and Scientific Computation 335 Statistics and Data Sciences 335, 374E.


10. Twelve-semester-hours of laboratory courses chosen from the following: Biology 365L, 365L, 366P, 366S, and 377 or Neuroscience 365L, 366L, 366P, 366S, and 377. The same section of Biology 377, Undergraduate Research, or Neuroscience 377, Undergraduate Research may not count toward requirement 11 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 Data Sciences 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–Neuroscience 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.
1 See http://www.utexas.edu/provost/planning/cat_change/UnderGrad.html for detailed explanations.
2 Texas Higher Education Coordinating Board.
3 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. Strike through and replace (with underlines) only the specific language to be changed. Do NOT use “track changes”! For questions on completing this section, please contact Anita Ahmadi, fe@austin.utexas.edu, 471-5936 or Brenda Schumann, brenda.schumann@austin.utexas.edu, 475-7654.