

CNS BS IN NEUROSCIENCE

**PROPOSED CHANGES TO THE BS IN NEUROSCIENCE IN THE COLLEGE OF
NATURAL SCIENCES SECTION IN THE *UNDERGRADUATE CATALOG 2018-2020***

Type of Change¹ Academic Change
 Degree Program Change (THECB² form required)

Proposed classification³ Exclusive General Major

1. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AND ASSESSMENT, TO DETERMINE IF SACSCOC APPROVAL IS REQUIRED.

- | | | |
|--|------------------------------|--|
| • Is this a new degree program? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • Is this program being deleted? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • Does the program offer courses that will be taught off campus? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| • Will courses in this program be delivered electronically? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |

2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

Option 1, Neuroscience Scholars

Req 12: Add NEU 365D to list of 9 hours of UD Neuroscience chosen from approved list. Remove NEU 466G and 466N from the approved list.

Reason: NEU 365D added to make it consistent with other NEU degree options. NEU 466G and 366N removed since they are already listed as course options in Req 11.

Remove NEU 377 from requirement 13 and add it to requirement 11. Limit the number of NEU 377 hours that may count toward the laboratory requirement.

Option 2, Neuroscience Honors

Add Biology 206L

Reduce the required NEU lab hours from 9 to 6.

Add BIO 359K and 367C to the list of approved NEU courses in requirement 14.

Reason: George Pollak, the Dean's Scholars advisor in NEU brought this to my attention and the logic behind his proposed changes. He did a nice job of summarizing the issue so I'm going to just copy his summary of the problem as he saw it. "There is a small problem with the current Dean's Scholars Neuroscience program that Mark Hemenway brought to my attention. Specifically, BIO 206L needs to be added to the required curriculum because that course is a prerequisite for NEU 335, which is why it should be part of the degree requirements. What I suggested is that the number of required lab courses be reduced from 3 labs to 2 lab courses. This would reduce the number of required hours by 3, but would add 2 hours (206L), thus there would be a net reduction of 1 hour. To compensate, I suggest that the current 8 additional hours, which are Approved by the Honors Faculty Advisor, be increased to 9 hours." I talked to George about an alternative, in adding 206L, keeping the three labs but dropping those 8 additional hours down to 6, but he preferred his solution. So, we went with it.

Change the number of approved electives from 8 to 9 hours.

Reason: Altered due to the addition of BIO 206L and the reduction of 3 hours of lab coursework.

Change 6 hours from Fine Arts or Liberal Arts to 6 hours from Fine Arts and Liberal Arts.

Reason: In practice, the Dean's Scholars Program allows students to take 6 hours from a single college or a mixture

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of 6 hours from both colleges. The change will synch catalog copy to advising practice and eliminate the need for petitions.

Option 3, Neuroscience

Req 11: Add NEU 466G and 466M to the statement that courses may only count toward Req 10 or 11. Remove all BCH and BIO courses from requirement 11.

Req 10: Specify that a maximum of 6 hours of NEU 377 may count toward requirement 10. The course inventory form for NEU 377 will be altered accordingly.

Reason: We originally put all of those BCH/BIO lab courses in the option III BS degree plan because we feared that we might not have the throughput to handle all of these students in NEU lab courses. At the time we did not have good ideas of how many students would be in the various BS degree plans as well as in the BSA. Most of our students are flocking to the BSA option and our lab classes are not all filling. We thus feel we could accommodate all of the option III NEU students in our NEU labs and we'd rather have them take NEU labs than BIO/BCH labs. This is how we would like to have written the degree plans to begin with but were unsure about throughput, so we played it safe by adding all of those BIO/BCH labs.

Special Requirements

Standardize language regarding requirements to graduate with Dean's Scholars degree options.

Reason: Since the honors options were added at different times as new BS degrees were created, standard language began to differentiate between degrees. The Dean's Scholars steering committee voted to establish standard language for all of its options.

3. THIS PROPOSAL INVOLVES (Please check all that apply)

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Courses in other colleges | <input type="checkbox"/> Courses in proposer's college that are frequently taken by students in other colleges | <input type="checkbox"/> Flags |
| <input type="checkbox"/> Course in the core curriculum | <input type="checkbox"/> Change in course sequencing for an existing program | <input type="checkbox"/> Courses that have to be added to the inventory |
| <input type="checkbox"/> Change in admission requirements (external or internal) | <input type="checkbox"/> Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office) | |

4. SCOPE OF PROPOSED CHANGE

- a. Does this proposal impact other colleges/schools? Yes No
If yes, then how would you do so?

The original legislation stated that Dean's Scholars must choose 6 hours from either the College of Liberal Arts (COLA) or the College of Fine Arts (COFA). In practice, students are allowed to count 6 hours from one of the colleges, or a mixture from the colleges. This change will eliminate the need for petitions in situations where students choose to take a mixture of COLA and COFA coursework. In a constant state, the Dean's Scholars Program has approximately 200 majors.

There is no way to predict how this change will impact the College of Fine Arts and the College of Liberal Arts. Specific courses are not prescribed and the change is to match catalog language to current advising practice. Making an estimate, perhaps 10 seats per year distributed across all courses in both colleges may be impacted. Because the number of seats across both colleges is estimated to be so small, the College of Fine Arts and the College of Liberal Arts were not formally consulted for permission to make this change.

- b. Do you anticipate a net change in the number of students in your college? Yes No
If yes, how many more (or fewer) students do you expect?
- c. Do you anticipate a net increase (or decrease) in the number of students from outside of your college taking classes in your college? Yes No
If yes, please indicate the number of students and/or class seats involved.

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- d. Do you anticipate a net increase (or decrease) in the number of students from your college taking courses in other colleges? Yes No
If yes, please indicate the number of students and/or class seats involved.

If 4 a, b, c, or d was answered with yes, please answer the following questions. If the proposal has potential budgetary impacts for another college/school, such as requiring new sections or a non-negligible increase in the number of seats offered, at least one contact must be at the college-level.

How many students do you expect to be impacted?

Impacted schools must be contacted and their response(s) included:

Person communicated with:

Date of communication:

Response:

- e. 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:

- f. Will this proposal change the number of hours required for degree completion?

Note: THECB Semester Credit Hour Change Form required, download from URL:

<http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc>

If yes, explain:

5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date: October 18, 2016 Approved by whom: Michael Mauk, chair
Sept. 25, 2017

Department approval date: Sept. 27, 2017 Approved by whom: Biology Course and Curriculum

College approval date: March 9, 2017 Approved by whom: Course and Curriculum Committee
Sept. 29, 2017

Dean approval date: Sept. 29, 2017 Approved by whom: David Vanden Bout, Associate Dean for Undergraduate Education

PROPOSED NEW CATALOG TEXT:⁴

Bachelor of Science in Neuroscience

[no change]

Prescribed Work Common to All Options

[no change]

Option I: Neuroscience Scholars

4. Mathematics 408C, or 408N and 408S; Statistics and Data Sciences 328M
5. An eight hour physics sequence chosen from the following:
 - a. Physics 317K, 117M, 317L, and 117N
 - b. Physics 303K, 103M, 303L, and 103N
 - c. Physics 301, 101L, 316, and 116L
6. Chemistry 301 or 301H, 302 or 302H, and 204
7. Biology 311C and 311D, or 315H and 325H, and 206L
8. Three additional majors-level courses selected from one of the following sequences:

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- a. Biology: Biology 325 or 325H, 320, 344, 349, and 370
 - b. Chemistry: Chemistry 328M and 128K, 328N and 128L, 353 or 353M, and Biochemistry 369
 - c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E
 - d. Mathematics: Mathematics 427J or 427K, 427L, 340L or 341, 362K, 378K, Statistics and Data Sciences 321 or 329C; Mathematics 362K and Statistics and Data Sciences 321 may not both count.
 - e. Physics: Physics 345, 338K, 355
 - f. Psychology: Psychology 301, 323, 353K, 355
9. Neuroscience 330
 10. Neuroscience 335
 11. 12 semester hours of laboratory courses chosen from the following: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 377, 466G, and 466M. A maximum of 3 hours of Neuroscience 377 may count.
 12. Nine semester hours of upper-division neuroscience to be chosen from: Biology 325, 359K, 367C, Neuroscience 337, 365D, 365T, 365W, 366C, 366D, ~~466G, 366N~~, 367F, 367V, and 371M; Biology 325 or 325H may count toward either requirement 8a or requirement 12
 13. Three semester hours of ~~either Neuroscience 377 (Undergraduate Research) or Neuroscience 379H (Honors Tutorial Course); the research topic in Neuroscience 377 or 379H must relate to neuroscience and be approved in advance by the faculty adviser~~
 14. Enough additional coursework to make a total of 120 semester hours

Option II: Neuroscience Honors

4. 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.
5. 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.
6. One of the following:
 - a. Physics 315 and 115L
 - b. Physics 316 and 116L
 - c. Physics 338K, 345, 355

Courses counted toward requirement 4 may not also be counted toward requirement 6.

7. Biology 206L and Chemistry 204
8. Chemistry 128K, 128L, 328M, and 328N
9. Biology 320 or 344
10. Biology 349 and 370
11. Neuroscience 330
12. Neuroscience 335
13. ~~Nine Six~~ hours of laboratory courses chosen from: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M
14. Six hours of upper-division neuroscience chosen from: Biology 359K, 367C, Neuroscience 337, 365D, 365T, 365W, 366C, 366D, 367F, 367V, 371M, 377
15. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
16. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
17. Two semesters of Neuroscience 379H
18. ~~Eight Seven~~ additional semester hours of coursework approved by the departmental honors adviser
19. Six semester hours of coursework ~~in~~ from the College of Liberal Arts ~~or~~ and/or the College of Fine Arts
20. Enough additional coursework to make a total of 120 semester hours

Option III: Neuroscience

4. Mathematics 408C, or 408N and 408S; and Statistics and Data Sciences 328M
5. An eight hour physics sequence chosen from the following:

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- a. Physics 317K, 117M, 317L, and 117N
- b. Physics 303K, 103M, 303L, and 103N
- c. Physics 301, 101L, 316, and 116L
6. Chemistry 301 or 301H, 302 or 302H, and 204
7. Biology 311C, 311D, and 325 or 315H and 325H
8. Biology 206L
9. Neuroscience 330 and 335
10. 15 hours of upper-division neuroscience chosen from Biology 359K, 367C, Neuroscience 337, 365D, 365L, 365T, 365W, 366C, 366D, 366E, 366L, 366N, 366P, 366S, 367F, 367V, 367W, 371M, 377, 466G, 466M. A maximum of 6 hours of Neuroscience 377 may count.
11. Six additional hours of upper-division laboratory course work chosen from the following: ~~Biochemistry 369T, Biology 320L, 321L, 325L, 331L, 340L, 446L, 448L, 453L, 354L, 455L, 456L, 369L, 478L,~~ Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M. Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, ~~and 367W, 466G, and 466M~~ may count toward requirement 10 or requirement 11.
12. 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*.

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. More information about the Undergraduate Research Forum is available at <https://cns.utexas.edu>.

¹ See <https://facultycouncil.utexas.edu/degree-program-changes> for detailed explanations.

² Submit required Texas Higher Education Coordinating Board forms to the provost's office.

³ **EXCLUSIVE:** of *exclusive* application and of primary interest only to a single college or school ("no protest" period is *seven calendar days*); **GENERAL:** of *general* interest to more than one college or school (but not for submission to the General Faculty) ("no protest" period is *fourteen calendar days*); **MAJOR:** *major* legislation must be submitted to the General Faculty for adoption ("no protest" period is *fourteen calendar days*).

⁴ The proposed text should be based on the text of the current catalog available at <http://catalog.utexas.edu/undergraduate/>

Strike through and replace (with underlines) only the specific language to be changed. Do NOT use track changes, and do not include hyperlinks in the catalog copy. For questions on completing this section, please contact Victoria Cervantes, fc@austin.utexas.edu, 471-5936 or Brenda Schumann, brenda.schumann@austin.utexas.edu, 475-7654.