PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOCHEMISTRY DEGREE PROGRAM
IN THE COLLEGE OF NATURAL SCIENCES IN THE UNDERGRADUATE CATALOG 2016-2018

Type of Change
☒ Academic Change
☐ Degree Program Change (THECB form required)

Proposed classification
☒ 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 SACS-COC APPROVAL IS REQUIRED.

- Is this a new degree program? Yes ☐ No ☒
- Does the program offer courses that will be taught off campus? Yes ☐ No ☒
- Will courses in this program be delivered electronically? Yes ☐ No ☒

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

All changes are to Option I: Biochemistry.

1) Addition of M 408M to complete the three-part calculus sequence.

Rationale: The faculty believe that a complete calculus sequence is good preparation for a career as a practicing biochemist.

2) Removal of BIO 328M.

Rationale: Biostatistics is only offered under SDS 328M.

3) Reordering of physics sequences emphasizes the selection of PHY 317K, 117M, 317L, and 117N, the preferred sequence for students seeking the BS in Biochemistry.

Rationale: Many students selected their physics sequence by choosing the first one in the list. The reordering will ensure that students with less thorough understanding of calculus do not end up taking a physics sequence requiring more complex calculus-based problems.

4) Remove the choice to complete 18 hours in a field of study approved by the undergraduate adviser.

Rationale: This choice caused confusion for students and advisors as to what an appropriate field of study might be. The faculty decided either a transcript-recognized certificate or 18 hours in additional BCH, BIO, CH, and NEU are sufficient.

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

☒ Courses in other colleges
☐ Courses in proposer’s college that are frequently taken by students in other colleges
☐ Flags

☒ Course in the core curriculum
☐ Change in course sequencing for an existing program
☐ Courses that have to be added to the inventory

☒ Change in admission requirements (external or internal)
☐ 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?

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.
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)? No. 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? No. If yes, explain:

5. COLLEGE/SCHOOL APPROVAL PROCESS
Department approval date: March 26, 2015
College approval date:
Dean approval date:

PROPOSED NEW CATALOG TEXT:

Bachelor of Science in Biochemistry

The degree of Bachelor of Science in Biochemistry is intended to prepare students for professional careers as chemists, either upon graduation or after graduate study in chemistry or related fields. In addition, it may serve as the basis for work in many areas outside pure chemistry, such as materials science, medicine and other health-related fields, pharmacology, patent law, business, and environmental science. The honors option is intended to prepare students for academic or research careers.

Students who plan to follow option III, biochemistry honors, must be admitted to the Dean’s Scholars Honors Program.

Prescribed Work Common to all Options

All students pursuing an undergraduate degree must complete the University’s Core Curriculum. In addition, students seeking the Bachelor of Science in Biochemistry 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.
2. One course with a quantitative reasoning flag.

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.

3. At least thirty-six semester hours of upper-division coursework.
4. At least twenty-one semester hours of upper-division coursework, including at least twelve semester hours of upper-division coursework in chemistry, must be completed in residence at the University.

Additional Prescribed Work for Each Option

Option I: Biochemistry

5. Mathematics 408C and 408D, or 408N, and 408S, and 408M.
6. Biostatistics: Biology 328M or Statistics and Data Sciences 328M.
7. One of the following sequences:
   a. Physics 301, 101L, 316, and 116L; Physics 317K, 117M, 317L, and 117N (recommended);
   b. 303K, 103M, 303L, and 103N; or
   c. 317K, 117M, 317L, and 117N, 301, 101L, 316, and 116L.
8. The following chemistry courses:
   a. General chemistry: Chemistry 301 or 301H, 302 or 302H, and 204 or 317.
   b. Organic chemistry: Chemistry 320M.
   d. Physical chemistry: Chemistry 353 or 353M.
   e. Analytical chemistry: Chemistry 455.
9. One of the following sequences:
   a. Biology 311C, 311D, and 325; or
   b. Biology 315H and 325H.
10. Completion of one of the following:
    a. Eighteen additional semester hours of upper-division biochemistry, biology, chemistry, and neuroscience; or
    b. Eighteen additional semester hours in a field of study approved by the undergraduate adviser; or A transcript-recognized certificate.
   c. A transcript-recognized certificate.
11. Enough additional coursework to make a total of 120 semester hours.

Option III: Biochemistry Honors

5. Breadth requirement: An honors mathematics course, Biology 315H and 325H, Chemistry 301H and 302H, and three additional semester hours of coursework chosen from honors courses in the college. Credit earned by examination may not be counted toward this requirement.
6. The following chemistry courses:
   a. General chemistry: Chemistry 204 or 317.
   b. Organic chemistry: Chemistry 128K, 128L, 328M, and 328N; or 220C, 320M, and 320N.
   d. Physical chemistry: Chemistry 353 or 353M.
   e. Analytical chemistry: Chemistry 455.
6. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser.
7. A section of Rhetoric and Writing 309S that is restricted to students in the Dean’s Scholars Honors Program.
8. Chemistry 379H or 379H and either a three-semester-hour upper-division research course approved by the departmental honors adviser or a second section of Chemistry 379H or Biochemistry 379H.
9. Twenty-four additional semester hours of coursework approved by the departmental honors adviser.
10. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
11. Enough additional coursework to make a total of 120 semester hours.
Special Requirements

Students in all options 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 University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under option III, students must remain in good standing in the Dean’s Scholars Honors Program, must earn grades of at least A- in the departmental research and thesis courses described in requirement 8 above, 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 may be found on the College of Natural Sciences Web site.

Order and Choice of Work

The student must consult the undergraduate adviser each semester regarding order and choice of work.

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1 See http://www.utexas.edu/provost/planning/cat_change/UnderGrad.html for detailed explanations.
2 Texas Higher Education Coordinating Board.
3 Exclusive: of exclusive application and of primary interest only to a single college or school ("no protest" period is 5 working days); general: of general interest to more than one college or school (but not for submission to the General Faculty) ("no protest" period is 10 working days); major legislation must be submitted to the General Faculty for adoption ("no protest" period is 10 working days).
4 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 Victoria Cervantes, fc@austin.utexas.edu, 471-5936 or Brenda Schumann, brenda.schumann@austin.utexas.edu, 475-7654.