PROPOSED CHANGES TO THE BACHELOR OF SCIENCE IN BIOLOGY DEGREE PROGRAM IN THE COLLEGE OF NATURAL SCIENCES SECTION 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:

Prescribed Work Common to All Options

Option VII, Marine and Freshwater Science (renumbered)
Addition of BIO 373 as a specific requirement.
Rationale: Upper-division courses in Marine Science assume a foundation in ecology. BIO 373, Ecology, was removed from the required coursework for all BS BIO options, so it was included in required courses for the Marine and Freshwater Science option, to ensure that all students had appropriate preparation for Marine Science coursework.
Reduction of organic chemistry sequence to CH 320M.
Rationale: Upon further faculty review, it was determined that only the first semester of organic chemistry is necessary as a foundation for other coursework.
Removal of 3 hours of geological sciences chosen from courses that may count toward a major in geological sciences. Addition of GEO 341G as an option for one of the sequences in requirement 9.
Rationale: Not all GEO courses that count towards a Geology degree are relevant to Marine Science. After review of current GEO offerings, applicable courses were included under the two-course sequence in requirement 9.
Addition of requirement to complete 1 two-course sequence chosen from variety composed of BIO pairs and GRG pairs of courses.
Rationale: Several departments offer courses whose topics are very related to Marine Science. The two-course sequence directs students to pursue a “focus” area that is offered to augment and broaden their background in areas relevant to marine science.
Removal of additional upper-division laboratory requirement.
Rationale: Almost all upper-division Marine Science courses include a significant lab or field component. After reviewing the list of upper-division courses, it became apparent that the two requirements were redundant. It is not possible to complete 12 hours of upper-division coursework in Marine Science without simultaneously completing the laboratory requirement.
Update of BIO 101C (Topic 1: Marine Science Seminar) to MNS 101.
Rationale: Course description for BIO X101C now states “may not be counted toward a degree in the College of Natural Sciences.” This change was made without recalling how it would impact this requirement. Since the Marine Science Seminar is required for all MNS majors, Marine Science is establishing its own course number.
Reduce to 12 upper-division hours from approved list in BIO, GEO, and MNS.
Option VII: Plant Biology Marine and Freshwater Science

5. Mathematics 408C and 408D, or 408N and 408S. Chemistry 320M or 328M, 220C or 128K and 128L. Biology 326R and 226L.

6. An eight-semester-hour sequence of coursework in physics chosen from the following: Biology 373.
   a. Physics 301, 101L, 316, and 116L;
   c. Physics 303K, 103M, 303L, and 103N; or
   d. Physics 302K, 102M, 302L, and 102N

7. Chemistry 301 or 301H, 302 or 302H, 204, 220C, 320M, and 320N. Marine Science 101, 310, 320, and 120L.


9. At least four laboratory courses in biology, of which three must be upper division; the student must complete Biology 206L or 208L. One of the following sequences: Six hours of related courses chosen from the following options:
   e. Biology 320 and 344
   f. Biology 328 and 361T
   g. Biology 357 and 375
   h. Biology 364 and 366 or Geology 341G
   i. Geography 301C or 301K and 333K
   j. Geography 301C and 356 (approved topics) or 356T (approved topics)
   k. Geography 306C and 334, 339C, or 356 (approved topics)
   l. Geography 310C and 360G or 355N

10. Biology 328M or Statistics and Data Sciences 328M. Enough additional coursework to make a total of 120 semester hours.

11. Marine Science 310; Biology 101C (Topic 1: Marine Science Seminar); and three semester hours in geological sciences, chosen from courses that may be counted toward the requirements for a major in geological sciences.

12. In fulfilling requirement 4 of the Prescribed Work Common to All Options above, the student must complete the following courses:
   m. Biology 226L and 326R.
   n. Marine Science 320 and 120L.

13. Enough additional coursework to make a total of 126 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 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 and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least C- in the supporting course in requirement 12, and in each of the professional development courses listed in requirement 14. They must also earn a grade of at least C- in each of the courses listed in requirement 15. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic adviser.

To graduate under the honors option, 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/.

Order and Choice of Work

Students begin the Bachelor of Science in Biology degree program with six hours of introductory biology for science majors (Biology 311C and 311D), as well as Chemistry 301 or 301H and 302 or 302H and Mathematics 408C, 408N, or 408R or 408N. The genetics course, Biology 325, is prerequisite to other upper-division biology courses. Students should consult with academic advisers about specific concentrations within biology, about appropriate courses in mathematics and physical sciences, and about course load and the balance between laboratory and nonlaboratory work. Most students select an option by the end of the second year and take at least twenty-one hours of upper-division coursework in the major in the third and fourth years.

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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).