PROPOSED CHANGES TO THE BACHELOR OF SCIENCE AND ARTS, MAJOR IN COMPUTER SCIENCE, IN THE COLLEGE OF NATURAL SCIENCES SECTION IN THE UNDERGRADUATE CATALOG 2016-2018

Type of Change

☒ Academic Change
☐ Degree Program Change (THECB^2 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:

1. In requirement 1a, add M 408S.
   **Rationale:** the Department of Statistics and Data Sciences intends to change the SDS 321 prerequisite to M 408C or 408N and 408S.

2. In requirement 1b, note that M 341, Linear Algebra and Matrix Theory, may be applied as substitute to M 340L, Matrices and Matrix Calculations, or SDS 329C, Practical Linear Algebra I.
   **Rationale:** M 341 cannot be added directly to the requirements because it requires completion of more calculus than is required for the BSA CS major. Instead, it is noted as a substitute. M 341 is similar in content and spirit to M 340L and SDS 329C. Students in the BS in Computer Science degree may currently count M 341 toward this requirement. This notation will allow students to count M 341 without filing a petition.

3. In requirement 1c, note that M 362K, Probability I, may be applied as a substitute to SDS 321, Introduction to Probability and Statistics.
   **Rationale:** M 362K cannot be added directly to the requirement because the prerequisite consists of more calculus than is required for the BSA CS major. Instead, it is noted as a substitute. M 362K is similar in content and spirit to SDS 321. Students in the BS in Computer Science degree may currently count M 362K toward this requirement. This notation will allow students to count M 362K without filing a petition.

4. In requirement 3a, remove astronomy, geological sciences, and marine science as options for the six-hour, majors-level requirement.
   **Rationale:** Geosciences has restricted enrollment access to most of its courses for geosciences majors. Computer Science majors who want to study geological sciences are usually able to enroll in the first course of a two-course sequence. The students have extreme difficulty enrolling in a second course that is designed for science majors. Beyond AST 307, students have a difficult time getting a second astronomy course that may be counted toward a degree in Natural Sciences. Marine science courses are typically small in nature, and are not offered in a consistent instructional rotation. Students have a difficult time completing the sequence.

5. Add repetition and enrollment restrictions for computer science coursework. These restrictions are published in the Special Requirements section of the BS in Computer Science.
   **Rationale:** These restrictions were omitted from the BS degree, CS major, 2014-16 catalog, in error. Students who make grades of Q, D, F, and CR in a computer science course must request permission to repeat the class.
Students may not repeat a computer science course more than twice. Students may not enroll in more than 3 upper-division computer science courses in a single semester without permission. These policies provide opportunities for intervention to assist students in being successful in their second and final computer science course attempts. The enrollment restriction is necessary due to the large amount of project work in each upper-division course. The policy requires students to balance their upper-division coursework. The policy also prevents seniors from enrolling in 5 upper-division CS courses with the intention of dropping 2 courses. This particular strategy took seats away from rising seniors, and created a false sense of demand for more seats/sections.

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

   - [x] 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? [x] Yes [ ] No

      If yes, then how? Yes. The department is dropping geological sciences from its science requirement options. See the details below.

   b. Do you anticipate a net change in the number of students in your college? [ ] Yes [ ] No [x]

      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 [x] 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 [x]

      If yes, please indicate the number of students and/or class seats involved.

The Jackson School of Geosciences

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? 4 seats in GEO 401 and 4 or less seats across other geological sciences courses per academic year.

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

   Person communicated with: M. Nicole Evans, Assistant Dean, Jackson School of Geosciences
   Date of communication: April 16, 2015
   Response: “Doug, Yes, JSG is fine with this change.”

   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:
College approval date:
Dean approval date:

PROPOSED NEW CATALOG TEXT: 4

Computer Science

Major

1. Mathematics:
   a. Mathematics 408C or 408N and 408S.
   b. Mathematics 340L or Statistics and Data Sciences 329C. Mathematics 341 may substitute for this requirement.
   c. Statistics and Data Sciences 321. Mathematics 362K may substitute for this requirement.

2. Primary science:
   a. Theory: Computer Science 311 or 311H, and 331 or 331H.
   b. Programming: Computer Science 312 or 312H, and 314 or 314H.
   c. Systems: Computer Science 429 or 429H, and 439 or 439H.
   d. Twelve additional semester hours of approved upper-division computer science.

3. Secondary science:
   a. Six semester hours of majors-level coursework chosen from a single field of study: astronomy, biology, chemistry, geological sciences, marine science, or physics. It is recommended that students select courses that will also fulfill the Natural Science and Technology Part I core curriculum requirement.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upper-division computer science courses in a semester without written consent of an undergraduate adviser in computer science.

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.