PROPOSED CHANGES TO DEGREE PROGRAMS IN THE
UNDERGRADUATE CATALOG 2014-2016

Type of Change

___ Nonacademic Change
X Academic Change
___ Degree Program Change

1. NAME OF DEGREE PROGRAM: Admission into Computer Science

2. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST
CONSULT NEAL ARMSTRONG WHO WILL DETERMINE WHETHER SACS-COC APPROVAL IS
NEEDED.

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

3. EXPLAIN CHANGE TO DEGREE PROGRAM:

1. Split the admission process for the BA and BS degrees.
2. Reduce the calculus requirement for admission into the BA major.
3. Remove CS 313K; add CS 311 or 311H.

3a. Indicate pages in the undergraduate catalog where changes will be made.

4. GIVE A DETAILED RATIONALE FOR CHANGE. INDIVIDUAL CHANGES SHOULD BE LISTED
SEPARATELY.

1. The previous admission process required completion of M 408D or 408S and 408L for BA and BS majors.
The BA admission process now only requires completion of M 408C or 408N.
2. The CS faculty would like to change the math requirements for students majoring in computer science.
Linear algebra and probability are now considerably more important to the study and practice of computer
science than is calculus II. This is reflected in recent trends in computer science, including, for example, the
processing of big datasets, the development of probabilistic algorithms, and the growth of visualization,
simulation and animation. Therefore, there is no need for M 408D, 408S, or 408L to be part of the BA
admission process.
3. The Computer Science faculty would like to drop CS 313K (and CS 313H) and not teach it again. The
course has been changed to CS 311 (and CS 311H) with a significant change in course content in response
to developments in theoretical computer science.
4. The Entry-Level Major and CS admission to entry-level major
Require a minimum gpa of 2.5 for internal transfer students.

Rationale: The faculty determined that raising the overall gpa will help ensure the success of those
students entering the entry-level major. The change is also intended to help with enrollment control.
Transfer students who may count transfer grades toward admission into the major may also use these
grades toward admission into entry-level.
5. **CS Admissions to the BA, BSA, and BSCS option I**
   a. Remove calculus from the entry-level requirements.
      **Rationale:** The faculty believe that it will be adequate to use only CS courses to determine the potential for success in the major.
   
   b. Use transfer grades to calculate the entrance gpa if students successfully petition transfer courses for entry-level courses.
      **Rationale:** We have been using Calculus 2 along with CS 311, 312 and 314 to determine entry into the CS major. Beginning with the 2014-16 catalog, the BSA and BA degree will only require the 1st semester of calculus. We could use Calculus 1 instead of Calculus 2, but many CS students test out (AP/IB) of the first semester of calculus so we only use the 3 CS classes to calculate their GPA for entry into the major. In addition, the prerequisite for one of our entry-level courses, CS 314 are: a grade of at least C- in each: CS 312 and Mathematics 408C, 408K or 408N. This indicates an expectation of a particular grade and proficiency in first semester calculus.
   
   c. Raise minimum gpa for entry-level students to enter the major from 2.5 to 2.75.
      **Rationale:** The faculty believe this will help ensure the success of those students entering the CS major. In addition, this change is intended to help with enrollment control.

5. **SCOPE OF PROPOSED CHANGE**

   5a. **Does this proposal impact other colleges/schools? If yes, then how?** No.

      **If yes, impacted schools must be contacted and their response(s) included:**
      Person communicated with:
      Date of communication:
      Response:

   5b. **Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:** No.

      **If yes, undergraduate studies must be informed of the proposed changes and their response included:**
      Person communicated with:
      Date of communication:
      Response:

   5c. **Will this proposal change the number of hours required for degree completion? If yes, explain:** No.

6. **COLLEGE/SCHOOL APPROVAL PROCESS**

   Department approval date: May 9, 2012; August 1, 2013
   College approval date:
   Dean approval date:
THE ENTRY-LEVEL MAJOR

All new freshman and transfer students are admitted into the College of Natural Sciences in an entry-level major. Students who wish to pursue computer science but who were not admitted to the entry-level major by the Office of Admissions must have a minimum overall grade point average of 2.5 in residence at the University to transfer into the entry-level major. If a student completes transfer courses approved as substitutes for the entry-level courses, he or she may also count the grades of the approved substitutes toward the minimum overall grade point average of 2.5 for admission into the entry-level major. After completing a specified set of entry-level mathematics and science courses required for the degree with a grade of at least C- in each course, students are admitted to the major and option they plan to pursue unless the major or option has special admission-to-major requirements.

ADMISSION-TO-MAJOR REQUIREMENTS

THE MAJOR IN COMPUTER SCIENCE

Several programs are available to undergraduates who wish to major in computer science. Each program involves an admission process in addition to the student's application for admission to the University. All students may apply to the University as entry-level computer science majors and later seek admission to one of the computer science programs as described in this chapter; those seeking admission to the Turing Scholars program may also apply to that program when they apply for admission to the University. Students who were not admitted to the entry-level major by the Office of Admissions must have a minimum overall grade point average of 2.5 in residence at the University to transfer into the entry-level major.

Admission requirements for the Bachelor of Arts with a major in computer science, the Bachelor of Science in Computer Science, option I, and the Integrated Program are given below. Those for the Bachelor of Science in Computer Science, option II, Turing Scholars honors, and option III, computer science honors, are given on pages 543–544.

BACHELOR OF ARTS, THE BACHELOR OF SCIENCE AND ARTS, AND THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE, OPTION I AND BACHELOR OF SCIENCE IN COMPUTER SCIENCE, OPTION I

To apply for admission to either the BA, the BSA, or the BSCS, option I or the BSCS, option I, degree programs, the student must earn a grade of at least C- in each of four three-entry-level courses: Computer Science 311 or 311H, 312 or 312H, 313K, and 314 or 314H, and Mathematics 408C or 408N 408D or 408S or 408L. He or she must complete at least three of these courses in residence at the University. It is recommended that he or she complete all of the entry-level courses in residence at the University. However, he or she may request that transfer courses be approved as substitutes for the entry-level courses. The letter grades for approved transfer courses will be used in combination with entry-level courses taken in residence to calculate the grade point average required for admission to the major. He or she must earn a grade point average of at least 2.5 2.75 in the four three-entry-level courses taken in residence or out of residence, and a grade point average of at least 2.0 in all courses taken in residence. These requirements apply to entry-level computer science students seeking admission to one of these two computer science programs, the Bachelor of Arts major in Computer Science, the Bachelor of Science and Arts major in Computer Science, and the Bachelor of Science in Computer Science, option I.

Bachelor of Science in Computer Science, Option I
To apply for admission to the BSCS, option I, degree program, the student must earn a grade of at least C in each of four entry-level courses: Computer Science 311 or 311H, 312 or 312H, 314 or 314H, and Mathematics 408D or 408S or 408L. He or she must complete at least three of these courses in residence at the University. He or she must earn a grade point average of at least 2.5 in the four entry-level courses taken in residence and a grade point average of at least 2.0 in all courses taken in residence. These requirements apply to entry-level computer science students seeking admission into the BS in Computer Science, option I.

Students are evaluated after the end of each fall semester, spring semester, and summer session by the Department of Computer Science Admission Committee. Students should consult advisers in the College of Natural Sciences Department of Computer Science for information about admission to the major.

THE INTEGRATED PROGRAM IN COMPUTER SCIENCE

The Integrated Program is a curriculum of undergraduate and graduate coursework that allows the student to earn the BSCS and the MSCS degrees at the same time. The curriculum includes the same coursework as the traditional master’s degree program, as well as the opportunity for research.

Students in the Integrated Program are expected to become leaders in the profession. Highly motivated students with the personal qualities and intellectual capacity to establish successful careers in higher education and industry are encouraged to apply.

Undergraduates typically follow option I, II, or III for their first three years, then enter the Integrated Program in their fourth year. Admission is granted only for the fall semester; January 2 is the application deadline for those who wish to begin the program the following fall. By the end of the spring semester in which they apply, students must have completed at least sixty semester hours of coursework, including Computer Science 345 or 345H, 429 or 429H, and 353 or 357 or 357H.

Admission is based on the applicant's grade point average, letters of recommendation, statement of purpose, and SAT Reasoning Test or ACT scores, as well as other relevant examples of academic ability and leadership. An applicant with a University grade point average of less than 3.50 is unlikely to be admitted. Admission may be restricted by the availability of instructional resources. Application materials and information about deadlines are published by the Department of Computer Science at http://www.cs.utexas.edu/.

Before beginning the fifth year, students in the Integrated Program must be admitted to the Graduate School. Application forms must be completed by January 2 of the student's fourth year. Before the application deadline, students must have completed the prescribed work common to all BSCS options. They must earn an acceptable score on the Graduate Record Examinations General Test (GRE) and must have their test scores reported to the University. Students usually take the GRE in the fall semester of their fourth year.