

**EXECUTIVE COMMITTEE
BOURNS COLLEGE OF ENGINEERING
REPORT TO THE RIVERSIDE DIVISION
DECEMBER 1, 2020**

To be adopted:

Proposed Changes to Computer Science Major

PRESENT:

Major Requirements

Computer Science Major

1. Lower-division requirements (61 units)
 - a) ENGR 001-I
 - b) CS 010A, CS 010B, CS 010C, CS 061
 - c) CS 011/MATH 011
 - d) MATH 008B or MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 031
 - e) PHYS 040A, PHYS 040B, PHYS 040C
 - f) One course of 4 or more units in an engineering discipline outside the field of computer science to be selected in consultation with a faculty advisor. (Either a lower-division or an upper-division course may be used to satisfy this requirement.)
2. Upper-division requirements (78 units minimum)
 - a) ENGR 101-I
 - b) CS 100, CS 141, CS 150, CS 152, CS 153, CS 161, CS 179 (E-Z)
 - c) CS 120A/EE 120A, CS 120B/EE 120B
 - d) CS 111/MATH 111
 - e) ENGR 180W
 - f) STAT 155
 - g) At least 28 units of technical electives to be chosen from an approved list of courses which currently includes CS 105, CS 122A, CS 122B, CS 130, CS 133, CS 134, CS 135, CS 145, CS 160, CS 162, CS 164, CS 165, CS 167, CS 166, CS 168, CS 169, CS 170, CS 171, CS 172, CS 175, CS 177, CS 179 (E-Z) (4 units maximum), CS 180, CS 181, CS 182, CS 183, CS 193 (4 units maximum), MATH 120, MATH 126, MATH 135A, MATH 135B, PHIL 124.

PROPOSED:

Major Requirements

Computer Science Major

1. Lower-division requirements (61 units)
 - a) [no change]
 - b) [no change]
 - c) [no change]
 - d) MATH 008B or MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 031 or EE 020
 - e) [no change]
 - f) At least 9 additional units. One course of 4 or more units in an engineering discipline outside the field of computer science to be selected in consultation with a faculty advisor. (Either a lower-division or an upper-division course may be used to satisfy this requirement.)
2. Upper-division requirements (78 units minimum)
 - a) [no change]
 - b) [no change]
 - c) [no change]
 - d) [no change]
 - e) [no change]
 - f) [no change]
 - g) At least 28 units of technical electives to be chosen from an approved list of courses which currently includes CS 105, CS 122A, CS 122B, CS 130, CS 133, ~~CS 134~~, CS 135, CS 145, CS 147, CS 160, CS 162, CS 164, CS 165, CS 167, CS 166, CS 168, CS 169, CS 170, CS 171, CS 172, CS 173, CS 175, CS 177, CS 179 (E-Z) (4 units maximum), CS 180, CS 181, CS 182, CS 183, CS 193 (4 units maximum), MATH 120, MATH 126, MATH 135A, MATH 135B, PHIL 124.

The technical electives selected must be distinct from those used to satisfy the requirements specified in 2.a)–f) above, with at least half of the units selected from Computer Science courses.

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Justification:

Students should not receive credit for both Math 031 and EE 020. We propose to add 5 "flexible" units to bring total required units closer to 180. CSE has too few course requirements, the fewest of all BCOE and 180 is the ideal number (the minimum required to graduate). CS 147 and CS 173 are two new upper division offerings added to the catalog recently that were always meant to be technical electives. We are merely correcting the catalog to reflect that. They are courses that reflect depth areas of study that students can choose among for credit toward their major requirements. These courses do not overlap with any of the core requirements. CSE faculty have approved to remove CS 134 from the Computer Science major, as this course has been discontinued.

Approvals:

Approved by the faculty of the Department of Computer Science and Engineering:	October 2, 2019
Approved by the Executive Committee of the College of Engineering:	May 28, 2020
Approved by the Committee on Educational Policy:	November 6, 2020