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Proposal for Establishment of Academic Benchmarks for the Computer Science Undergraduate Major

Submitted by

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Philosophy:

The Computer Science Office of Undergraduate Education believes that all CS undergraduates should take a computer science course in their first semester as a computer science major. In order for students to succeed as a Computer Science Major at the University of Maryland, they should spend time learning about the major from the start of their education here. Throughout mandatory advising appointments (held every semester), the Undergraduate Office emphasizes to students that in order to do well, they should spend a great deal of time practicing the skills that will make them successful majors. We also understand that if students do not do well in this major, there needs to be a way for them to transition into a more suitable major. We have these benchmarks not to be punitive, but to make sure that our students do as well as possible and so that they understand that they need to take this major seriously from the very beginning.

If a student qualifies for CMSC131 or higher, he or she will take the appropriate course for their MATH and AP or Exemption exam placement. Those who are not eligible for CMSC131 (meaning that they are not qualified to take MATH 140) are strongly encouraged to take one of the following courses: CMSC102, CMSC122, CMSC198I, or CMSC289I. All computer science students are also strongly urged to take CMSC100.

Benchmarks:

The Computer Science Department’s Office of Undergraduate Education proposes the following new benchmarks for computer science majors:

1) At 30 attempted credits or within three semesters (of starting CS courses for the major taken at the University of Maryland), whichever comes later, students must have the following courses completed:

- MATH 140 with a grade of C- or better
- CMSC 131 with a grade of C- or better
- Fundamental Studies English (ENGL 101)
- At least 15 credits of CORE or General Education courses (Not including MATH or Analytical Reasoning).
2) At 60 attempted credits, or within six semesters (of starting CS courses taken for the major at the University of Maryland), whichever comes later, all students must have the following courses completed:

- CMSC 216 and CMSC250 with a grade of C- or better
- All but 9 credits of General Education courses

3) Students will be given at most 9 attempts to successfully complete the following 6 courses: MATH140, MATH141, CMSC131, CMSC132, CMSC216, CMSC250. Registrations resulting in any grade (A-F, I, W, NG) or in withdrawal after the drop/add period count as attempts. In addition, none of these courses may be attempted more than twice without an exception from the Dean of CMNS.

**Implementation Plan**

During winter and summer orientations, all incoming students will be informed about benchmarks as well the expectations that the Computer Science Department has for them as CS majors.

Any student who chooses to change his or her major to computer science will sign a document indicating that he or she understands the benchmarks as well as the requirements for the major. First year students who take CMSC100 will be reminded of the benchmarks during the course of the semester.

This information shall also be reinforced during mandatory advising meetings (held once a semester). Students will also be able to obtain information about benchmarks on the undergraduate website (http://undergrad.cs.umd.edu); a clear explanation of benchmarks will also be distributed to the undergraduate mailing list.

The undergraduate office will conduct audits of all student records at the close of each semester (in December and May). Once a student has met all established benchmarks, he or she will no longer be audited for that purpose by the undergraduate office. All full time students transferring into the computer science major will be evaluated at the conclusion of their first semester in the department. Part time students will complete an individual plan with a CS advisor.

The Computer Science Department’s Undergraduate Office will notify in writing all students who have not completed benchmarks. This information will also be recorded in internal and university wide systems used for advising. The Undergraduate Chair and all computer science advisors understand the policies surrounding benchmarks as well as the progression through the major. All new members of the undergraduate office will be responsible for learning and understanding the benchmarks and the courses in the major.
Those students who do not complete benchmarks by 30 or 60 credits will be reviewed by the undergraduate office. The names and records of those students will then be passed to the Associate Dean of Undergraduate Education for CMNS. After the undergraduate office, the Undergraduate Chair, and the Associate Dean meet, that group will make the final determination of whether or not each student who fails to meet the 30 and 60 credit benchmarks will remain in the computer science major. Students who fail to meet any one of the stated benchmarks will be sent to the College of Undergraduate Studies Transitional Advising Program (http://www.ltsc.umd.edu/tap.php) or another College for advising in another major.