Policy on Qualifying Requirements

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Preface
Since the founding of the Computer Science Ph.D. program, the department has used a qualifying exam to ensure that Ph.D. students have satisfactory mastery of various core areas of Computer Science. Originally the qualifying exam included Theory, Systems, and Programming Language components. The Programming Languages component was dropped several years ago because of lack of personnel to address this area. The Systems exam has been problematic the past several years: Without a good person to create the exam, the Graduate Advisor has partially created this exam himself and partially relied on adjunct faculty and faculty in other departments to help with the exam. This current scheme is not sustainable, and is also not testing students for adequate breadth in Computer Science (because of the tests in only Theory and Systems). In addition, after a review of various top Computer Science departments, it was found that a very small number (3 of 28 schools) use something equivalent to the qualifying exam. Finally, another analysis found a statistically significant correlation of .48 between students’ grades and qualifying exam performance, and a significant correlation of .60 between the number of A−/better grades and exam performance. Thus, the Graduate Committee recommends that the qualifying exam be replaced with a course-based system that better serves the purpose of ensuring satisfactory mastery of core areas of Computer Science.

Policy
The Ph.D. qualifying requirements ensure that Ph.D. students have sufficient mastery of the core concepts of Computer Science.

To satisfy the qualifying requirements, students must earn a grade of B+ or better in the first 6 Computer Science graduate courses taken as Ph.D. student, and must earn an overall GPA of 3.5 or better in these courses. Normally these courses comprise the 3 mandatory-core and 3 flexible-core courses taken as part of the Ph.D. program; however, they may in some cases include more advanced courses (e.g., if the student has received transfer credit for a core course). Undergraduate courses, independent studies, research credits, and courses from other departments cannot be counted toward the qualifying requirements.

Student progress toward these requirements will be assessed in the Annual Review following the student’s first year in the Ph.D. program. If the student has completed
the above requirements in the first year, the student will have fulfilled the qualifying requirements, and no further action is needed.

If the requirements have not been met by the end of the first year, the Graduate Committee will prescribe a course of action to be followed in the student’s second year in the program. For example:

- If a student has taken 6 courses with a 3.5 GPA, but earned less than a B+ in one of the courses, the committee may ask the student to re-take this course or take another course in a related area for a grade of A– or better.

- If a student has taken 6 courses but earned a GPA of less than 3.5, the committee may ask the student to take 1-3 specific courses and earn an A– or better in these courses. The specified courses would normally be targeted for the area(s) in which the student’s performance was weakest in the original 6 courses.

- If a student has taken 6 courses but earned a GPA significantly below 3.5, the committee may prescribe a full sequence of courses in the second year that addresses the problem areas identified in the first year.

The student’s progress will then be re-evaluated in the Annual Review following the student’s second year in the Ph.D. program. Failure to satisfactorily complete the prescribed course of action by the end of the second year will result in dismissal from the Ph.D. program.