April 14, 2016

MEMORANDUM

TO: Jayanth Banavar
    Dean, College of Computer, Mathematical & Natural Sciences

FROM: Elizabeth Beise
      Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to Modify the Ph.D. in Computer Science (PCC Log No. 15055)

The proposal to modify the Ph.D. in Computer Science has been administratively approved. A copy of the proposal is attached.

The change is effective Fall 2016. Please ensure that the change is fully described in the Graduate Catalog and in all relevant descriptive materials.

MDC/
Enclosure

cc: Andrew Harris, Chair, Senate PCC Committee
    Barbara Gill, Office of Enrollment Management
    Reka Montfort, University Senate
    Erin Taylor, Division of Information Technology
    Pam Phillips, Institutional Research, Planning & Assessment
    Anne Turkos, University Archives
    Linda Yokoi, Office of the Registrar
    Alex Chen, Graduate School
    Wolfgang Losert, College of Computer, Mathematical & Natural Sciences
    Samir Khuller, Department of Computer Science
University of Maryland PCC
Program/Curriculum/Unit Proposal

Program: Computer Science graduate program

Department/Unit: Computer Science Dept.

College/School: CMNS

Proposal Contact Person (with email): Lisa Holder (lholder@umd.edu)

Type of Action (check one):
☑ Curriculum change (includes modifying minors, concentrations/specializations and creating informal specializations)
☐ Curriculum change is for an LEP Program
☐ Rename a program or formal Area of Concentration
☐ Establish/Discontinue a formal Area of Concentration
☐ Other:

☑ Establish a new academic degree/certificate program
☐ Create an online version of an existing program
☐ Establish a new minor
☐ Suspend/Discontinue a degree/certificate program
☐ Establish a new Master or Certificate of Professional Studies program
☐ New Professional Studies program will be administered by Office of Extended Studies

Italics indicate that the proposal must be presented to the full University Senate for consideration.

Approval Signatures
This form uses digital signatures. When you are ready to move the proposal forward, please send via email to the appropriate person at the next the approval level. Approvers should click the appropriate signature field to sign. When approved by the dean of the college or school, please email this form and the proposal document as an MSWord attachment to pcc-submissions@umd.edu. For proposals requiring multiple unit approvals, use additional cover sheet(s).

1. Department Committee Chair
   [Signature]

2. Department Chair
   [Signature]

3. College/School PCC Chair
   [Signature]

4. Dean
   [Signature]

5. Dean of the Graduate School (if required)
   [Signature]

6. Chair, Senate PCC
   [Signature] 4/11/16

7. Senior Vice President and Provost
   [Signature] 4/14/16

Summary of Proposed Action (use additional sheet if necessary):

See attached

Unit Code(s) (to be entered by the Office of Academic Planning and Programs):
Proposal to Reduce Number of Courses Required for Computer Science PhD

Current PhD course requirements:

Currently, the following course requirements must be satisfied to receive a PhD in Computer Science:

[Breadth] Seven 600-800 level PhD qualifying courses over five of eight areas, with no more than three in one area
   - Five A-’s and two B-’s in five semesters
   - These courses must be completed to advance to candidacy

[Elective] Two 600-800 level, three-credit courses (electives) with at least B-
   - These courses may be completed at any time; need not be PhD qualifying; and may be from outside the department with approval

[Other] One-credit How to Conduct Great Research Course
   - This course should be completed in the first two years

PhD qualifying courses are always three credits. Thus, in practice PhD students currently must take nine, three-credit, 600-800 level courses as part of their PhD.

Concerns with current requirements:

For a number of years, many faculty members have been concerned that the course requirements place too heavy a burden on the PhD students. More specifically:

1. Over the last ten years, we have noticed that PhD students are entering the program with stronger CS backgrounds. Many incoming PhD students have taken advanced coursework, and most students have performed some research already.
2. The community’s expectation of the research output of graduating CS PhD students has become much higher in recent years. Students that have to perform more coursework, and thus have less time for research, are thus at a competitive disadvantage when they graduate.

Proposal:

To address these concerns, the following changes to the course requirements are proposed:

[Breadth] Six Seven 600-800 level PhD qualifying courses over four five of eight areas, with no more than three in one area
   - Four Five A-’s and two B-’s in five semesters
   - These courses must be completed to advance to candidacy

[Elective] Two 600-800 level, three-credit courses (electives) with at least B-
   - These courses may be completed at any time; need not be PhD qualifying; and may be from outside the department with approval

[Other] One-credit How to Conduct Great Research Course
   - This course should be completed in the first two years

Note that the MS course requirements will remain the same (10, three-credit courses). To make up for the difference between the MS and PhD requirements, PhD students who want to get an MS “along the way” can take two, three-credit instances of CMSC 798 with their advisor.