

To: Senate Steering Committee

From: Senate Planning and Review Committee  
Frances Jackson, Chair

Re: Review of Ph.D. Program in Computer Science & Informatics

The School of Engineering and Computer Science has submitted a proposal to initiate a Ph.D. program in Computer Science and Informatics. This proposal was approved by the SECS Assembly on January 30, 2004. This proposal has the support of the SPRC.

### Program Strengths

Currently, doctoral students in Computer Science and Engineering (CSE) are awarded a degree in Systems Engineering (SE). The field of computer science and engineering continues to evolve and change and the systems degree, one of the earliest doctoral degrees offered at OU, is no longer the appropriate umbrella for doctoral work in this discipline. The new degree is consistent with OU's mission in that it will assist OU in providing excellent instruction, promote high-quality, basic and applied research and scholarship, and is responsive to the needs of local industry, serving the immediate community, region state, and even the nation. The new degree will more accurately represent the knowledge, preparation, training and research focus of these students.

The Ph.D. in Computer Science and Informatics (CSI) will offer two streams, one in computer science with a focus on the theoretical aspects of computer science and/or software engineering; and one in software and information technology for students interested in the application of software and information systems to a number of problems occurring in a broad array of multi-disciplinary information systems. This multidisciplinary approach distinguishes this program from similar programs offered at other Michigan institutions.

Support for the program is provided in letters of support from local industry and Microsoft, Inc. nationally. All letters were strongly supportive. Questionnaires were distributed to graduate and undergraduate students to solicit student feedback on the proposed program. Sixty-four percent of students surveyed supported the addition of a Ph.D. in CSI. In addition, when asked which program would provide them with the better chance of employment, students selected the PhD in CSI over the PhD in SE at a ratio of almost three to one.

Currently, the PhD in SE has a current enrollment of 25 students and graduates 2-3 students per year. It is anticipated that the new Ph.D. in CSI will add an additional five students per year with a steady state of 40 FTEs. It is projected that after the first 3 years, the Ph.D. in CSI will graduate 5-7 students per year. Currently, the CSE department has 15 full time faculty. It is anticipated that one new full-time faculty member will be

needed in the second year of the program. Two part-time faculty will be needed in years one and three. Two graduate assistants are also requested in years one and three. In addition to these human resources, the proposal states that more specialized labs will be needed.

The requirements for the Ph.D. in CSI are identical to the requirements for the Ph.D. in SE. One aspect of this degree that is particularly appealing is the requirement that all Ph.D. students must demonstrate some experience in teaching. This is met by assisting with laboratory instruction, grading papers and exams and/or lecture presentations in a class. The requirements to complete the Ph.D., including admission criteria, the formation of the committee, the qualifying exams, etc. are the same procedures required for the Ph.D. in SE.

#### Issues and Concerns

There are not many concerns about this degree, but one issue raised in committee is that this degree will not be unique to OU. This raises the question of feasibility and duplication. Since the degree is not unique to OU, what can SECS do that will attract sufficient students to our campus for this degree? The second issue is cost. While SBRC will make the report on the budget, it is obvious that this is an expensive program.

The third concern is the assessment plan. However, it is anticipated that the Assessment Committee is reviewing the plan and making necessary recommendations, if any.

This proposal has the support of SPRC.