

**COMMITTEE FOR THE REVIEW OF UNDERGRADUATE MAJORS
STANFORD UNIVERSITY**

DATE: 20 February 2008

TO: Eamonn Callan, Chair, XL Faculty Senate

FROM: Fabian Pease, Chair
Committee for the Review of Undergraduate Majors

RE: Interdisciplinary Program in Mathematical and Computational Science

Professors Bradley Efron and Susan Holmes (Director and Associate Director, respectively, of the Interdisciplinary Program in Mathematical and Computational Science, met with the Committee for the Review of Undergraduate Majors, on January 11, 2008. The IDP had previously been reviewed by the Curriculum Committee of the School of Humanities and Sciences, and had received the Deans' recommendation for a five-year renewal period.

Major declarations in Mathematical and Computational Science (MCS) have been steadily increasing since the last review. New career paths are continually opening up, and the IDP is contributing with opportunities for students to explore as the field of applied mathematics also continues to evolve. MCS offers wider choices for students who want both engineering and mathematics; the 70-unit requirement for the major gives them more flexibility than most engineering majors.

The two areas of concern noted in the meeting were advising and the lack of a central space for the program. The directors would like to have a room where enrolled students could have both formal peer advising and informal discussions. However, the IDP has not seen the kind of volunteer spirit among its very independent students that would lead to a peer advising group. Efron and Holmes do most of the advising in the major, and there are regular gatherings with the IDP faculty and students. The program's faculty advisory board will address these areas over the next year. The directors also welcomed the proffered services of Undergraduate Advising and Research to provide extra information on the MCS program to freshman and sophomore advisors. The School of Humanities and Sciences will also include MCS in its schedule of "Major Dinners" offered to undeclared students.

Notwithstanding these concerns, the program is continuing to grow with the input of its faculty and the courses created in their home departments. The survey results from current and former students expressed satisfaction with the options available in the program, including the advising they received; graduates have moved successfully into a wide variety of career paths.

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Interdisciplinary Program in Mathematical and Computational Science

The Committee for the Review of Undergraduate Majors therefore recommends that the Senate renew the degree-nominating authority of the Interdisciplinary Program in Mathematical and Computational Science for a period of five years, from September 1, 2009 to August 31, 2014, for the Bachelor Science degree, the Minor, and Honors.

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- I. Memo from Fabian Pease, Chair of C-RUM, to Faculty Senate, dated 20 February 2008.

- II. Memo from Dean Richard Saller and Senior Associate Dean Susan Stephens, School of Humanities and Sciences, to C-RUM, dated 12 December 2007.

- III. MCS Curriculum Review, October 2007
 - a. Memo from Bradley Efron to H&S Curriculum Committee
 - b. MCS Vision Statement
 - c. Evaluation of Undergraduate Program

THE FOLLOWING DOCUMENTS ARE AVAILABLE ONLINE AND BY REQUEST.

- d. Student and Alumni Survey (summary)
- e. Stanford Bulletin copy and MCS comments
- f. MCS Handout Materials for Students