

**COMMITTEE ON GRADUATE STUDIES
STANFORD UNIVERSITY**

May 1, 2011

TO: Rosemary Knight, Chair
XLIV Senate of the Academic Council

FROM: Richard Roberts, Chair, C-GS

RE: Recommendation for Renewal of degree-nominating authority for the coterminal MS degree program in the Interdisciplinary Program in Earth Systems for a period of five years from September 1, 2012 through August 31, 2017.

C-GS held its members-only discussion on the IDP in Earth Systems on March 2, 2011, and then met with IDP Co-Directors Rob Dunbar and Julie Kennedy, Assistant Director Deana Fabbro-Johnston, and Earth Sciences Dean Pamela Matson on April 27, 2011. The program began in 1992, and its last reauthorization was for an eight-year period (both graduate and undergraduate degree programs). The IDP is fully endowed; and there are some 40-50 students each year in the coterminal MS program.

The structure of the MS program is quite flexible. There are few required courses for all MS students, as the curriculum calls for each student to design his/her own program and have it approved by his/her advisor. Many of the E-IPER and CEE faculty are involved with Earth Systems, so there are many courses in those two areas that are available to Earth Systems students.

The students do have to write a research paper as part of the degree (a thesis mandatory in one advisor's cohort, but optional otherwise). Many E-IPER and CEE faculty are involved with Earth Systems, so there are more courses in those two areas that are available to Earth Systems students.

All Earth Systems affiliated faculty advise MS students; they are also helped by Deana Fabbro-Johnston as their first contact with the coterminal program. She determines whether the applicants have completed all of the Earth Systems undergraduate requirements, or whether there are additional pre-requisite courses that will be needed to bring them into sync with the MS program. Students in the Oceans Track, e.g., often find that they need more of the higher level Economics courses and have to take pre-requisites for those courses, which means it will take them longer than one year to complete the degree. However, the majority of the MS students take more than the University minimum of graduate level courses, even with some foundational undergraduate courses.

When Dunbar started in Earth Systems, there were 20 coterminal students; there are now 93, with about 33 expected to graduate this year. This growth has caused the IDP to look at itself in terms of advising and assessment with this larger body of students. Earth Systems is writing an advising manual for faculty and students, and talking about unit requirements, which may lead to the IDP becoming more restrictive than the current University guidelines.

C-GS commended the program, and the attitude of changing with the growth in enrollment, and Dunbar said that Earth Systems could agree to the following promises:

- 1) To provide vigorous advisor training and socialization, especially for new faculty.
- 2) To clarify the expectations of the level of work on the program website - - which will raise the bar regarding undergraduate courses.
- 3) To include on the website and/or in the manual that students with additional "foundational" needs may not be able to complete the MS degree in one year.

Therefore, the Committee on Graduate Studies recommends a five-year renewal of the graduate degree program (coterminal MS degree) of the Interdisciplinary Program in Earth Systems, for the period of September 1, 2012 through August 31, 2017. This recommendation will be brought forward in conjunction with the C-RUM recommendation of an eight-year renewal for the undergraduate degree program.

**COMMITTEE ON GRADUATE STUDIES
COMMITTEE FOR THE REVIEW OF UNDERGRADUATE MAJORS**

**RENEWAL OF INTERDISCIPLINARY PROGRAM IN
EARTH SYSTEMS**

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- III. C-GS correspondence with IDP in Earth Systems.
- IV. Transmittal letter from Pamela Matson, Dean of Earth Sciences, to C-GS and C-RUM, dated January 28, 2011; from Robert Dunbar, Julie Kennedy, and Deana Fabbro-Johnston, IDP in Earth Systems, to Dean Matson, dated January 25, 2011; transmittal letter from Anthony R. Kovscek (ERE), Chair of Earth Sciences Review Committee for the IDP in Earth Systems.
- V. Self-study of the graduate and undergraduate programs in Earth Systems.