

January 11, 2010

MEMORANDUM

To: Eric Hellgren, Chair, Graduate Council

From: Steven Esling, Chair, Department of Geology

Re: Proposed Geoscience Doctoral Program

Please accept the attached document outlining the proposed Doctoral Program in Geosciences and its positive impacts on the University.

Please let me know if you would like any additional information.

Proposed Doctoral Program in Geosciences
College of Science

The College of Science proposes a progressive, interdisciplinary doctoral program in the physical and biological sciences with a focus on Earth research. The Geosciences Doctoral Program would be housed within the Department of Geology, but would involve faculty from other departments in the College. The University already has the research active faculty and a diverse collection of relevant courses that could support an interdisciplinary Geoscience Doctoral Program.

The proposed program would attract promising students to a high demand field, increasing the number and quality of graduate students on campus. Research output of the faculty of the College of Science would increase, including external research funding and publications in national and international journals and symposia.

Occupational demand for students completing degrees in geosciences is extremely strong at the present time, with significant promise for further growth to meet the needs of society for energy and natural resources and to solve environmental problems. At the National meeting of the Geological Society of America this year, the Pardee Keynote Symposium focused on the emerging workforce crisis in the geosciences. The symposium organizers noted that higher education is yet to address the increased demand for geoscientists.

Both the internal and external reviewers of the Department of Geology recommend the addition of the Geoscience Doctoral Program (Fall, 2009 review). The external reviewers stated *"This is a critical step for the department, because the existing program through which they advise doctoral studies is limited in scope for geology."* They also noted that the *"...scholastic accomplishments within the department are substantial by any measure. As a whole, the productivity of the faculty is superior, both in terms of quality and quantity."*

In our view, rather than harming any existing program, a Geoscience Doctoral Program would enhance other programs on campus, establishing the University as a recognized center for research on the Earth and the environment and increasing the visibility of the Environmental Resources and Policy Program (ER&P) and the Department of Geography and Environmental Resources. Proposed changes to the successful ER&P Program in order to address the concerns of the faculty in Geology would significantly alter its mission unnecessarily.

The faculty in the Department of Geology have singled out the lack of a Geoscience Doctoral Program as a limitation to their productivity and growth. Several areas of geoscience do not fit well under the ER&P umbrella, and there is significant concern that the University is losing potential students, research opportunities, and perhaps faculty due to the absence of a Geoscience Doctoral Program. During recent searches, quality applicants expressed concern about the lack of a Ph.D. program. Two recent hires would not have joined the faculty if the Dean did not support an initiative for the proposed program. We need the program to attract and retain quality faculty. The proposal also has the unanimous approval of the Faculty in the Department of Geology.

The National Academy of Sciences only ranks disciplinary programs if they have a doctoral degree, making it difficult to determine the standing of a program without a Ph.D. degree relative to its peers or aspirational peers. Therefore, the absence of a doctoral program can then call into question the overall quality of a department, even if it has outstanding faculty.