UNIVERSITY OF WASHINGTON
The Graduate School
G-1 Communications
Box 353770
Seattle, Washington 98195-3770

Telephone: (206)543-5900
Fax: (206)685-3234

November 29, 2011

To: Lisa J. Graumlich, Dean, College of the Environment

From: Gerald J. Baldasty, Vice Provost and Dean
James S. Antony, Associate Vice Provost and Associate Dean for Academic Affairs

RE: Review of the Department of Earth and Space Sciences (2010-2011)

This memo outlines the recommendations from the academic program review of the Department of Earth and Space Sciences (ESS). Detailed comments on the program can be found in the documents that were part of the following formal review proceedings:

- Charge meeting between committee, department, and administrators (May 27, 2010)
- ESS self-study (October 19, 2010)
- Site visit (February 14-15, 2011)
- Review committee report (June 14, 2011)
- ESS response to review committee report (July 22, 2011)
- Graduate School Council consideration of review (November 17, 2011)

The Graduate & Professional Student Senate (GPSS) did not submit a report for this review.

The review committee consisted of:

Philip J. Reid, Professor, UW Chemistry (Committee Chair)
Mark M. Benjamin, Professor, UW Civil and Environmental Engineering
Donald W. Forsyth, Professor, Department of Geological Sciences, Brown University
Rebecca Lange, Professor, Department of Geological Sciences, University of Michigan

A subcommittee of the Graduate School Council presented findings and recommendations to the full Council at its meeting on November 17, 2011. After discussion, Council recommended continuing status for department's degree programs, with the next review to be scheduled for the 2020-2021 academic year. Specific comments and recommendations regarding the department and its degree programs include the following:

Strengths

- *Service Courses.* The department has a stellar track record in teaching four undergraduate service courses: Introduction to Geology; Dinosaurs; Living with Volcanoes; and Space and Space Travel. Each academic year, the department provides over 13,000 student credit hours through these courses, and these popular courses continue to play an important role in the general sciences curriculum.

- *Students*. Both the undergraduate and graduate students have a strong sense of departmental identity, a "can-do" attitude, and an enviable esprit-de-corps which reflects a very closely-knit and embracing culture within the department.

- *Undergraduate Majors.* Over the past decade, undergraduate majors have increased from ~100 to ~150. Indications are that this could comfortably expand to ~200 students.

- *Graduate Students.* The number of graduate students has remained essentially constant over the past decade (~80), but their quality has risen, as evidenced by a higher number of fellowship holders. The great majority of the graduate students are PhD bound, and this is the clear focus of the graduate program.

- *Research.* The department remains very highly ranked internationally. The areas of Geophysics and Seismology as well as Geology are ranked in the top ten, and the department is ranked 13th overall by US News and World Report. Faculty members are very productive in grants and publications, and among the faculty are 4 AAAS Fellows, 2 NAS members, and one MacArthur Fellow.

- *Diversity.* Over the past decade, the department has done an outstanding job of increasing the percentage of female and underrepresented minority students in its graduate program. Currently, over 50% of the graduate students are female and 10% are minority. Both percentages have been steadily increasing over successive years, indicating a successful outreach and recruitment program.

Challenges & Risks

- *Teaching Assistant Support.* One of the most critical areas of need is for additional teaching assistants. Currently, the department has 16 TAs per quarter, of which only 10 are permanent lines in the budget. Some TAs have been reported to voluntarily work above the appointed time in order to "get the job done."

- *Instructors for Service Courses.* Currently, the very large freshman level service courses are taught by one lecturer and a few part time instructors. As both the self-study and the review committee reports noted, this is a critical situation that requires attention.

- *Faculty Retirements and Retention.* Like many other departments, Earth and Space Sciences has a large proportion of faculty who will likely retire within the next few years, leaving unfilled gaps in both the core instructional and research programs. Other faculty are being actively recruited by other universities, making retention is a challenge across all ranks. Over the past decade, the ESS faculty count has fallen from 30 to 24 FTE. However, an additional contributing 5 faculty have primary appointments in other departments, and 13 research faculty are also an integral part of the enterprise.

- *Building and Infrastructure.* Although the renovation of Johnson Hall in 2005 solved most of the basic space issues, the infrastructure that supports the on-campus research still falls short in several critical areas.

- *Professional MS Degree.* Both the self-study and the review committee reports cited the development of a professional MS degree program as a high priority item for the department to pursue. A new MS degree track in Applied Earth Sciences has since been approved by the University.

- *College of the Environment.* The department is still determining its position and function within the College of the Environment as the college itself works to determine its own role and scope. The relationship to the college has led to some uncertainty and difficulties in strategic planning and resource allocation.

Areas of Concurrence and/or Disagreement

The department expressed agreement with all the recommendations outlined in the review committee report. As part of the department's response, ESS underscored several items that are most urgent:

- Sustained, permanent support for teaching assistants.
- Specific items related to the maintenance of Johnson Hall.
- Maintaining departmental faculty in the face of outside recruitment.

Graduate School Council Recommendations

- The Graduate School Council recommends continuing status for the department's programs, with review in 10 years (2020-2021).
- The Council encourages ESS to continue its work addressing items raised by the review committee. Items specifically called out by the Council are: the impact of upcoming faculty retirements; retention of faculty in the face of outside recruitment; and assuring teaching assistants do not exceed the appropriate workload.
- In addition, ESS should work with the College of the Environment Dean to develop a broad departmental strategic plan. This plan should include an assessment of whether the department has the appropriate number of areas of specialization as well as how Activity Based Budgeting will impact its undergraduate courses and programs.

We concur with the Council's comments and recommendations.

cc: Douglas J. Wadden, Interim Provost and Executive Vice President
Ed Taylor, Dean, Undergraduate Academic Affairs
Robert Winglee, Professor and Chair, Department of Earth & Space Sciences
Members of the Earth & Space Sciences Review Committee
Members of the Graduate School Council
David Canfield-Budde, Academic Program Specialist, The Graduate School
GPSS President