



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

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

August 27, 2008

To Phyllis M. Wise
Provost and Executive Vice President
Douglas J. Wadden
Executive Vice Provost for Academic Affairs and Planning
Office of the Provost, Box 351237

From: Gerald J. Baldasty
Interim Vice Provost and Dean
James Soto Antony
Associate Dean for Academic Programs

A handwritten signature in black ink, reading "James Soto Antony".

RE: Department of Applied Mathematics 10-year Review

At the meeting of March 6, 2008, the Graduate School Council met with Bruce Balick, (Professor of Astronomy) Chair of the team that reviewed the Department of Applied Mathematics degree programs, and Vincent Gallucci (Professor of Aquatic and Fishery Sciences) review committee member, and with the Department Chair, Nathan Katz (Professor of Applied Mathematics). Werner Stuetzle, Divisional Dean for Natural Sciences, College of Arts and Sciences, was also in attendance. The Department offers a Professional Master of Science in Applied Mathematics and Doctor of Philosophy degree programs, and it participates in the undergraduate Applied and Computational Mathematical Sciences (ACMS) program, a multidisciplinary Bachelor of Sciences (B.S.) degree program offered jointly by the Departments of Applied Mathematics, Computer Science and Engineering, Mathematics and Statistics.

The program review process included a charge meeting on April 6, 2007, between members of the review committee and administrators involved in the review. The site visit, held on April 23-24, 2007, included the external reviewers, Robert Miura (Professor, Mathematical Sciences and Biomedical Engineering) of the New Jersey Institute of Technology, and Rachel Kuske (Professor, Mathematics) of the University of British Columbia.

The most recent prior review of the Department's degree programs was completed in spring quarter 1997. The continuing status of the degree programs was reaffirmed, with the next review scheduled for the 2006-2007 academic year.

At the March 6, 2008 Council meeting, Professor Balick outlined findings and recommendations from the Review Committee Report (submitted August 3, 2007). The committee recommended that the Department's undergraduate, Professor Master of Science Program in Applied Mathematics, and Doctor of Philosophy degree programs be continued. The committee commended the Department on its progress in the past ten years in spite of significant challenges it faced. However, the committee expressed concern about the lack of depth in critical areas of the discipline and the need for faculty to increase collaborations with desired partner departments such as Biology where there is demand for interdisciplinary initiatives. The committee recommended that the Department rework its strategic plan with attention to developing more realistic goals, timelines for implementation, justify the argument for new faculty and other resources, and collaborate with and seek the College's support for the strategic plan. They recommended that the Department aggressively address the need for career advising to ACMS students interested in applied mathematics. The committee noted the need for a faculty appointment to the Professional Master's Program to provide leadership and program management, advising to students, and to develop "outcome-based performance standards" to clarify program expectations for students. The committee recommended that the front office administrative staff support be revitalized due to the importance of its administrative functions. Additionally, the committee recommended that the Department seek faculty diversity and age balance, aggressively pursue equality in gender and minority representation, and maintain the current age demographics; and develop proactive recruitment strategies to recruit the best graduate students. Finally, the committee recommended that the notion about the potential merger of the department with the Department of Mathematics be put to rest.

The Chair indicated the Department was giving serious consideration to the committee recommendations. The strategic plan will articulate an improved strategic vision and proposed investment in human capital and diversity. Justification for faculty lines will focus on diversity. The undergraduate curriculum is being evaluated; the Professional Master's Program has new leadership and improved communications with students about requirements, a successful distance learning component was introduced; and the issue with administrative office operations is being addressed.

The Graduate School Council, noting the departmental response, supported the committee's recommended for continuation of the Department's undergraduate and graduate degree programs with the next review in the 2017-2018 academic year. The Council recommended the following: 1) that attention be given to the Department's approach to diversity in the recruitment of faculty and students; 2) increase service and graduate course offerings; and 3) support graduate training programs more broadly.

We concur with these recommendations and comments.

c: Ana Mari Cauce, Dean, College of Arts and Sciences
 Werner Stuetzle, Divisional Dean for Natural Sciences, College of Arts and Sciences
 Janice M. DeCosmo, Associate Dean, Office of Undergraduate Academic Affairs
 Nathan Kutz, Professor and Chair, Department of Applied Mathematics
 Jacob K. Faleschini, President, Graduate and Professional Student Senate
 Applied Mathematics Review Committee
 Graduate School Council
 Augustine McCaffery, Senior Academic Program Specialist, The Graduate School