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Dean Jerry Baldasty
Academic Program Review
The Graduate School
University of Washington

Response: 2009 Chemical Engineering Ten Year Review

Dear Dean Baldasty.

The department appreciates the professionalism and effort of the committee and Graduate School in executing our ten year review during the Spring, 2009. We are delighted the committee recommended that the department's degree programs be continued and remain on a ten-year review cycle.

Since the review, I have taken over as Chair of chemical engineering. The ten year review committee's report played a critical role in my request for resources from the Dean of Engineering, and has shaped my agenda for immediate action as Chair. I would like to review the committee's specific recommendations for the department, and the actions completed or planned in response to them.

We recommend that the Department of Chemical Engineering prepare a new Strategic Plan that is highly focused and concise. This Plan should be carefully integrated with the Molecular Engineering Initiative of the College of Engineering. Clear prioritization of objectives is critical in a time of economic crisis.

- The Chem E External Advisory Board, comprised of leading industrial and academic engineers, was convened in September, 2009, with an agenda focused on establishing strategic goals for the department.
- In November, 2009, after deliberation, a preliminary vote, and revision, the faculty established a one page vision statement and set of strategic goals that emphasize the role of molecular engineering in the department.
- Departmental committees have been reorganized to align them with the strategic goals and the committee charges explicitly seek to enhance the role of Chem E in the Molecular Engineering Initiative.

We recommend that no further attrition in the size of the Chemical Engineering Faculty be permitted to occur. We recommend that attractive and competitive offers be made to new faculty candidates and faculty who are considering offers from other institutions. It is recognized that this will be difficult in a time of economic crisis but the Chemical Engineering Department holds a pivotal interdisciplinary position in the College of Engineering and hence is critical to the health of the initiatives of the College.

- The Dean has provided 1.5 new faculty lines and a commitment of partial start-up funding. The department is pursuing a mid-career molecular engineer and a half-appointment in collaboration with the new Bioresource Science and Engineering program in the College of the Environment. These represent real growth for the department.

We recommend that the size of the current staff not be reduced. The consequences of reductions in the support staff will be severe and perhaps irreparable.

- We concur, and requested that the Dean of Engineering shield the department from further cuts for the next 3 years. The Dean was unable to agree to this request.

We recommend that every effort be made to maintain the size of the graduate Ph.D. program and that cuts to the number of TA positions be avoided or minimized. Any cuts will most certainly impact national ranking.

- The department has serious concerns regarding the impact of State cuts on our graduate program. During the 2009-2011 biennium we were spared TA cuts through the allocation of temporary funds, but starting in summer 2011, pending any further cuts, we will have our TA support cut from 13 quarterly positions to 10. We are anticipating further mid-biennium cuts in summer 2010.
- Directly or indirectly, several other cuts have also hurt core support for graduate students. For example, faculty with endowed positions now must pay at least 10% of their salary from endowment income, removing those funds from the support of graduate students and postdocs. In addition, graduate fellowship income has been cut in half as a result of changes in endowment income policy.
- In response to these threats to our graduate population, the department is proactively pursuing federal graduate training grant funds. We have a pending Department of Education GAANN grant, anticipate pursuing NSF IGERT funding in the next round, and we are a partner in a recently funded NIH T32 (two of our students are NIH Trainees).

We recommend that the Department explore opportunities to offer revenue-producing continuing education courses. The Department should also pursue training grants when possible.

- Though we concur with this recommendation, at this time the department is focused on upgrading the undergraduate curriculum to include more molecular design and nanoscale principles. The report noted our small size and need to focus, so we are using our limited capacity for developing new educational content within the undergraduate curriculum.
- As noted above, we are aggressively pursuing training grants.

We recommend that the Department continue to explore up-grading of the undergraduate education program to include topics of contemporary relevance, keeping in mind the need for strength in traditional areas such as processing.

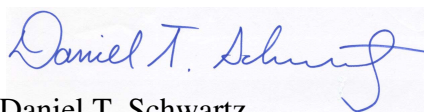
- As noted above, we are aggressively developing new classes (e.g., Chem E 325) and new content that incorporates molecular design and nanoscale principles. This effort is tremendously assisted by the skills of our newest faculty member, Jim Pfaendtner.
- The department, as part of an NSF funded grant, is administering a new campus-wide interdisciplinary minor in "Nanoscience and Molecular Engineering".
- The new "Undergraduate Program" committee is charged with coordinating departmental education reform and the university approval processes so our new curriculum can be fully launched when the Molecular Engineering Building comes on-line in two years.

We recommend that more formal mentoring be instituted for undergraduate, graduate, postgraduate students and for junior faculty.

- I have reorganized several committees to make them focused on student professional development. Literally, the new consolidated committees are called the "Undergraduate Student Professional Development" and "Graduate Professional Development" committees.
- Since becoming Chair, I have monthly scheduled meetings with our junior faculty.

In short, the work of the ten year review committee has been immediately influential and will continue to be so in the future.

Sincerely,



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