SCHOOL OF ENGINEERING & TECHNOLOGY
UNIVERSITY *of* WASHINGTON | TACOMA

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School of Engineering & Technology Response to Program Review Report

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The School of Engineering & Technology (SET) would like to thank the reviewers for their thoughtful comments and guidance in the review report. The review committee noted that all undergraduate programs are of high quality and these programs provide opportunities for social and economic mobility for students, a large number of whom are First Generation or Pell Eligible. The new graduate programs (PhD in Computer Science & Systems, MS in Electrical & Computer Engineering, and the Graduate Certificate in Software Development Engineering) have begun to do well. Students are highly satisfied with the education they receive and are receiving job offers from large to small companies of the Puget Sound region. Faculty teaching and research is of a high caliber but they feel overworked.

We have asked for input from all faculty and staff before writing this response. We have also received input from all program chairs, associate deans, staff leaders, and the Executive Vice Chancellor for Academic Affairs. Below we list eight areas in which we address review committee recommendations. All these areas are important to the school. If needed, we will consult with UW Bothell, UW Seattle, and many R2 schools for guidance with respect to implementing review committee recommendations. We have already begun work on some recommendations made by the review committee.

Any updates since the site visit regarding any of the topics in the report: None

The unit's next steps in prioritizing and implementing review committee recommendations or addressing challenges cited by the committee:

1. Improving Quality of Programs and Scholarship

Scholarship Issues: We agree with the review committee's opinion about having an appropriate number of instructors that matches enrollment in order to provide faculty with adequate time for scholarship. We believe that we have an appropriate number of instructors, however dealing with situations such as sabbaticals, medical leave, and course releases for campus level service puts additional load on faculty. Some examples of research support other than UW's RRF (Royalty Research Fund) provided by the school are course buyouts, course releases for

assistant professors, and funds for travel to conferences. Every effort will be made to hire new faculty or part-time faculty when the number of faculty does not match enrollment. In the near future, we will appoint a committee to formulate a policy on providing course releases for scholarship endeavors.

We will work on formulating clearer P&T (Promotion & Tenure) guidelines that take into account disciplinary differences and access to graduate programs. We will ensure more rigorous annual and 2nd year faculty review.

Teaching Load Issues: We will work on developing a policy to account for lab instruction in faculty teaching loads. We will refrain from increasing class caps (which are 35 to 45) unless approved by faculty. Currently, most class sections have enrollments of less than 35. In the near future, the School's Faculty Council will be discussing the effect of class sizes on the quality of student experience with the goal of determining an optimal class cap.

PhD Program Quality: We agree with the review committee's opinion that the management approaches of the PhD program are nascent. The graduate faculty are working hard to design policies that ensure program quality (note that currently many PhD students are funded by federal research grants and have published in top conferences such as NeurIPS (Conference on Neural Information Processing Systems) and CVPR (Conference on Computer Vision and Pattern Recognition)). We will reach out to Seattle to collaborate on providing access to opportunities on the Seattle campus (such as seminars, etc.)

Example PhD policies approved by faculty: The faculty will restrict total enrollment to around 20 until management approaches mature. A policy ensuring that no PhD student graduates prematurely has been approved (Students cannot register for 800 level research until they pass the general exam). A policy to evaluate the quality of the research work of every PhD student every year has been approved.

Funding for PhD students: Graduate faculty proposal submissions have increased since the inception of the PhD program (the grants amount in 2022-23 was $1.65M). In 2024-25, 5 new TA positions will help fund PhD students. The new Carwein-Andrews Endowment is almost exclusively for PhD student scholarships. We will survey R2 programs to find ways to improve financial support for PhD students. Every effort will be made to provide full financial support for all PhD students during their study (including providing lower-division teaching opportunities to PhD students).

The School's Faculty Council will develop a plan to address critical issues such as additional clarity for promotion criteria, optimal class enrollment caps, a clear model for faculty workload, increased support for program chairs, and space for faculty/staff offices, faculty scholarship, and student projects/clubs.

2. **Improving Management of a Growing School**
   a. Creating Departments/Divisions: We will form a committee to investigate when and how to enable the creation of departments/divisions and to create a rubric for evaluating when departments/divisions should be created. This committee shall consult with the STEM School at UWB which has divisions.
   b. Dealing with Increased Program Chair Duties: Program Chairs do personnel management in addition to overseeing the curriculum because as we expand the

programs are becoming more and more independent. In addition to course releases, from Spring'24 onwards we will provide extra compensation to all program chairs (ADS (administrative supplement) and summer salary) for their personnel management and other duties.

c. New Engineering Program Resources: Next year we will hire another mechanical engineering (ME) lab engineer and a new ME faculty member.

d. Expansion of 1st and 2nd year programs: A new 1st and 2nd year advisor will be hired this year to support this expansion.

e. Creating School Career Support: We will consider expanding the staff position for dealing with internships and full-time job opportunities from 0.5 FTE to 1.0 FTE.

3. Creating a Supporting and Welcoming Environment

a. Advisors and School Decision Making: We will look into improving our decision-making process in order to better include advisor input. Advisors already provide input via attending Program Faculty meetings.

b. Formalizing a Faculty Mentoring Process: The School's Faculty Council is currently working on the creation of a faculty mentoring process. Currently, they have a draft of a plan for faculty mentoring. The UWT campus is also working on a campus level plan for faculty mentoring.

c. Staff workload Issues: We will work with HR to look into defining staff workload more clearly.

4. DEI issues

a. Dealing with Male Dominated Engineering Programs and reduced retention due to 1st and 2nd Year Programs: We will remain vigilant in the coming years and be pro-active in dealing with these issues. The new staff hire for advising 1st and 2nd year students and the creation of new 1st and 2nd year courses will help with increasing retention of 1st and 2nd year students. Student clubs such as Women in Computer Science (WiCS), Women in Cyber Security (WiCyS), Women in Information Technology (WiIT), and Society of Women Engineers (SWE) already exist in the school and will likely help with retaining/increasing the number of women students in the school.

b. The JEDI group (the School's DEI Council) is currently working on updating the SET climate survey to track student retention and sense of belonging. The survey will be disseminated during the Spring 2024 quarter.

5. Increasing Regional Prominence

a. Increasing Interaction with the Industrial Advisory Board: We will deepen engagement with the South Sound Community via seeking more input and support from the Industrial Advisory Board for new program building, equipment donations, and fundraising.

b. Creating a Web Portal for Capstone Projects: We have already begun creating such a portal to make it easier for local industry to propose and fund capstone projects.

6. **Space:** Creating space for student projects/clubs, faculty research, and faculty/staff offices is a challenge. As the reviewers have indicated, finding optimal ways to use undergraduate teaching labs may help with space for student clubs and faculty research. The Chancellor (and UWT) is planning on making a request to the state legislature for funds for completing the renovation of Tioga Hall. This may help with the faculty/staff office space problem.

If the unit disagrees with specific recommendations or determines they cannot be implemented, clarification or justification may be provided:

7. **Focus on Recruiting Students from the Surrounding Region:** We will continue to focus on recruiting students from the South Sound region. However, many students from King and Snohomish counties are expressing interest in our programs. We will give such students the opportunity to enroll at UWT.

8. **The Teaching-Load Gap between Teaching and Research Faculty is Small:** We agree with the reviewers that this gap is small (7 courses/year for teaching faculty and 6 courses/year for research faculty). We want to note that this teaching load is fixed across the UWT campus and making changes to these teaching loads has to occur at the campus level.