

Administrative Response

Engineering Program Review

October 14th, 2011

We thank you for your tireless dedication to your profession, students and the community as you've created, maintained and improved the outstanding quality of the Engineering Transfer program.

Also, we thank you for a thoughtful review which addressed the six major section headings from the Program/Discipline Review Outline. We did note, however, the absence of clear marking of the subsections, which made it somewhat challenging to align responses to specific sections of the Outline. Your presentations were also thoughtful, thorough and well organized.

This response contains 5 sections: 1) Commendations, 2) areas for further consideration, 3) suggestions/observations, 4) response to recommendations/areas of SAC needs and 5) Closing comments.

1. Commendations

- *Excellent write-up in Program Review summarizing assessment efforts with detailed information provided through attachments.
- *SAC articulated goals
- *Small group advising for students
- *Sixty-six percent increase in FTE
- *Excellent relationships with numerous 4-year institutions resulting in extensive transfer opportunities for students
- *Analysis and change of programming relative to transfer partner's changes
- *Encouraging students to complete an AS degree prior to transfer
- *Summary of course changes based on a variety of inputs including needs of transfer partners, student skill shortages, and demands of real world
- *Introduction of Matlab programming language in ENGR 221/222/223 to improvement alignment with PSU
- *Comprehensive mapping of Core Outcomes to course offerings
- *Day and evening offerings to meet students' needs
- *Use of IVC to engage ENGR 101 students at other PCC locations
- *Required departmental approval prior to enrolling in ENGR 101 to ensure complex advising happens accurately and consistently
- *Participation in the "Society of Women in Engineering Scholarship"

- *Faculty professional development activities including: Engineers Without Borders as well as professional consulting work to maintain current industry experience
- *Leveraged use of limited resources in the purchase of equipment shared between ENGR, CMET and EET
- *Making textbooks available through campus libraries to help off-set the high costs of books
- *Excellent use of real world examples, mock-ups, and field trips designed to place course content in a meaningful context
- *Involving a student and his creative work in your Program Review presentation

2. Areas for further consideration

We appreciate the attention to the assessment agenda established by the Learning Assessment Council, and your inclusion of both the reports and a summary of the findings for Assessment of the Core Outcomes. The SAC is to be commended on your willingness to reveal student performance at levels less than you had hoped for, and a willingness to propose instructional changes based on assessment, as well as plans to refine assessment methods..

It was a little disappointing that you did not address section 2A, which asked for examples of improvements based on assessment of course level or sequence outcomes. In a program like ENGR, such assessments are surely done, to reveal any areas needing improvement within challenging sequences, or for mastering outcomes that are critical for transfer to the university. Indirect assessment (student survey) suggested inconsistency in the degree to which students felt prepared to continue – a combination of direct and indirect assessment would be more revealing of areas needing attention.

3. Suggestions/Observations

Given the interrelationship between ENGR, CMET and EET and their shared faculty, facilities, and equipment we support the idea of your exploring the possibility of combining future Program Reviews. To do so, however, it will be important that the integrity of the process is retained and that the details of individual reviews won't be replaced by overarching generalities. We suggest that you work closely with your Division Dean as you evaluate this possibility and look forward to learning how you would plan to implement it given the cautions noted.

Explore the opportunity of co-admitting students with PSU.

An inconsistency between your stated Instructor Qualifications and those posted was noted. We encourage you to revisit the official qualifications and adjust as needed to incorporate PE licensure coupled with a BS degree as a demonstrated competency.

4. **Recommendations for Improvement**

A. Expand engineering full-time faculty

We understand and appreciate the need for an additional full time faculty and wish we could simply grant your request. As you know, however, the budget situation at the State continues to be uncertain.

Currently, neither New Initiatives nor the conversion of margin to permanent funding is eminent, though there may be an opportunity to convert funding in FY 13. When such an opportunity occurs, there will be keen competition for the limited resources. We recommend that you work closely with your division dean and continue collecting data in support of this request in order to be ready when the next opportunity happens.

B. Address the extra burden that student academic advising places on faculty

You have clearly identified the need as well as the added complication which prohibits the Perkins funded Advisor from working with non CTE programs/students. It will be helpful to quantify the numbers of hours per week advising services are needed, which will assist your division dean in the creation of a more specific plan identifying hard costs associated with this recommendation. With this information, your division dean will be able to work with his campus colleagues and campus leadership to explore possibly ways to address this. As noted by Chris Chairsell, it will be critical to involve Jan Wetzel Volinski in any discussions regarding the use of your Perkin's Advisor for advising non-CTE students.

C. Update advising guides on an annual basis

Updating these guides should assist in addressing the recommendation above. Even though your recommendation is for this to happen annually, the best avenue for now will be through the use of margin funds. We recommend you work with your division dean to create a budget to address this need, thus enabling your dean and me to search for a more permanent source of funding.

D. Have instructional materials available for all ENGR courses

We recommend you work with your division dean to create a budget to address this need. In this instance, there may be funding available through curriculum development. Additionally, this could be a request for margin dollars as noted above.

- E. Offer new SolidWorks course by fall 2012

This is an excellent recommendation grounded in the needs of not only industry, but by your partner transfer institutions as well. Again, we suggest exploring funding through staff development.

- F. Advise students to earn the AS degree as well as prepare for Junior-level course work

This recommendation appears to be connected to and should be served by recommendations B and C above. As guides are updated and advising becomes more available, it should be possible to address this need.

Additionally, encouraging your students to acquire an AS degree is consistent with the Completion Agenda and will, most likely, align with future State funding based on various indicators of completion.

Consider exposing students in their last term or two to PCC's Grad Plan to assist them in determining which courses, if any they would need to complete an AS degree before transferring. Additionally, please work with Rebecca Mathern to ensure that ENGR courses are connected, as electives, in the Grad Plan.

5. Closing Comments

It was immediately obvious to us that you take great pride in this program and have dedicated countless hours to continuously improve your offerings

In closing, we want to thank you for a very thoughtful Program Review and engaging presentation.

Administrative Response submitted by Jeff S. Triplett on behalf of the Deans of Instruction and Kendra Cawley, Dean of Instructional Support.

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