

# Program Review – Annual Program Update

## Administrative Response and Follow Up

### 2020-2021

#### **Program/Discipline:**

SAC Chair(s): Justin Mortensen

SAC Administrative Liaison: Laura A. Horani

Other Division Dean(s): --

Department Chair(s): Wendie Sieverts

Date: 4/12/2021

This section is for Administration to provide feedback.

To be prepared by Division Dean(s) and reviewed by DOI(s).

Thank you so much for your annual program update. It was a pleasure to read. CADD is a growing and vital program that exemplifies the creativity, dedication, and energy the faculty have invested in it.

1. **Strengths and successes of the program as evidenced by the data, analysis, and reflection:**
  - The program has grown continuously in SFTE at a rate range of 5%-6% per year. This reflects the strong connection between the faculty, advisory board, and business and industry. One example of this connection is the program's connection to Autodesk, a large CAD software company. The faculty really listen to the business and industry needs and then modify their courses or create new courses to meet those needs.
  - Developing two online classes (with CADD 175 and 160 in the planning stages) is a wonderful way to be able to decrease travel for students and to meet them where they are.
  - Embedding a tutor in CADD 126 could provide a good way to mitigate the difficulties students have in an online course, which could be the first online course they have ever taken. You might also find the article by Edmunds et al. (2021) "High tech, high touch: The impact of an online course intervention on academic performance and persistence in higher education." I will send this article to you.
  - Focusing faculty attention on culturally responsive instructional practices as evidenced in the student success rates in CADD 126, where Black students had a slightly higher success rate than any other group by 2% and other groups were not far behind.

## **2. Areas of challenge or concern, if any:**

- Thank you for highlighting the student success rates of multi-racial students in CADD. This could be addressed through research, focused discussion among the faculty, and targeted readings to raise awareness of the issue and brainstorm solutions. I recommend this occur at department and SACC meetings, so PT faculty can more easily participate. You may want to also reach out to Samm Erickson and Annie Grey in the TLC to see if they would be willing to design a workshop for or facilitate a discussion with the CADD faculty for a portion of a department meeting and/or SACC meeting.
- Thank you for your awareness of students starting the CADD program out of sequence. I think you have done an admirable job of expanding class options to accommodate this growth. Yes, please work as a SACC to develop a strategic plan to serve students who don't fit neatly into the once-a-year cohort model.

## **3. Reflection on goals and resources:**

- "Data reports related to more background information of our students would be helpful." One thing that will be happening this year is to look at our dual credit students in CADD and to see if these students have come to PCC to enroll in more CADD courses and/or complete a CADD certificate. We are partnering with Dual Credit and Institutional Effectiveness to look at this for the years 2016-17, 2017-18, 2018-19, and 2019-20 (and into 2021 as some students may have stopped out due to the pandemic).
- Regarding reports related to student placement (related capabilities) in mathematics, especially geometry-related knowledge, your FDC has Banner training and could look up initial student placement in math in Banner (SOATEST) or could look up the math courses students have previously taken at PCC in Banner (SHACRSE).
- Regarding other placement levels in subjects related to communications and human relations, these are also available in Banner (in SOATEST for initial reading and writing placement) and SHACRSE for previously taken courses in communications and human relations.
- Regarding whether a student is full-time or part-time, after the add/drop period, perhaps the IAA working with CADD could get a report showing what CADD students are registered for each term.
- Regarding where students are located, as faculty, you have access to this information. Go to the faculty tab in MyPCC, under "Banner/Banweb," click on "Summary class list," and then when the list of students comes up, click on each student's name to see their home address. Hopefully, it is up-to-date.
- I agree that it can be difficult to track students who are Trade Act or in another type of job-retraining program. Please ask Marta Hoenig to capture this information during her 1:1 program advising sessions with CADD students.

- I will be interested to see how the SAC's quest for a renewed CADD AAS degree goes once the reorganization is complete and we can better see what the CMET program and mechatronics is covering. And yes, it's a good plan to seek a higher level of ADDA certification (technical designer) if the CADD AAS application is approved.
- Please involve the Dean for Science, Computing, & Engineering and the Program Dean of Computing & Engineering going forward on any talks with the University of Oregon if there is a possibility to develop a transfer program from PCC to U of O's BA in Product Design.
- Expand facilities to include a model shop or lab to allow for more hands-on learning. I support this request, and it will require getting this ask onto the FMS College Design Plan. Perhaps then it will be possible to convert Tabor 117 into a CADD maker space sometime in the next biennium (which starts in July). I also support CADD obtaining SCOM 204 for additional CADD classroom space. I would like to encourage the program, for now, to look at re-distributing the equipment and using SCOM 206 and 204 as they are. I know the CADD program is interested in combining SCOM 204 and 206 into 1 room, and again, this involves structural issues, so it is a longer-term goal that would need to be added to the FMS College Design Plan. Please involve the Dean for Science, Computing, & Engineering and the Program Dean of Computing & Engineering on future talks regarding facilities.

#### 4. **Recommended next steps:**

X (See comments below) Proceed as planned on program review schedule

\_\_\_ Follow up conversation needed with SAC, Dept Chair(s) and Dean

#### 5. **Additional comments/questions:**

I enthusiastically support hiring a knowledgeable person (such as a CADD graduate) to administer the open CADD lab in a casual (non-workstudy) position for 10-15 hours a week in 21-22.

I am also wondering if we should be looking for a third full-time CADD instructor in 21-22, particularly one we could share with OMIC. I think that the number of overloads the two full-time CADD faculty do suggest the need for a third full-timer. Another reason to consider hiring a third FT faculty member is that there is the possibility of not having a fully staffed CADD program should any emergencies arise among our current faculty.

References (I have)

Akhtar, S., Warburton, S., & Xu, W. (2017). The use of an online learning and teaching system for monitoring computer-aided design student participation and predicting student success. *International Journal of Technology and Design Education*, 27(2), 251-270.

Edmunds, J. A., Gicheva, D., Thrift, B., & Hull, M. (2021). High tech, high touch: The impact of an online course intervention on academic performance and persistence in higher education. *The Internet and Higher Education*, 49, 100790. <https://doi.org/10.1016/j.iheduc.2020.100790>

Reference (I don't have)

Peng, X, Yuan, T, Nadeem, U, Ketsetzi, A, Yalvac, B, Eseryel, D, Eyupoglu, TF, & Cui, S. "Assigning Students Teacher's Role: A Student-Centered Approach in Computer-Aided Design Education." *Proceedings of the ASME 2016 International Mechanical Engineering Congress and Exposition. Volume 5: Education and Globalization*. Phoenix, Arizona, USA. November 11–17, 2016. V005T06A008. ASME. <https://doi.org/10.1115/IMECE2016-66871>