

Program Review – Annual Program/Discipline Update
Administrative Response and Follow Up
Winter 2021-2022

Program/Discipline: **Computer Aided Design and Drafting**

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Department Chair(s): Wendie Siverts

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This section is for Administration to provide feedback.
To be prepared by Program Dean(s) and reviewed by Pathway Dean and AVPs

NOTE: In this response, CADD refers to the Computer Aided Design and Drafting Department at PCC and CAD refers to the software program.

1. Strengths and successes of the program as evidenced by the data, analysis and reflection:

Thanks to the CADD SAC for successfully completing this new Annual Program Update for the second year. This continues to be a new format for all of us, and it is clearly a learning time for all involved in changing over to this new yearly format and set of questions. This CADD Annual Program review landed on top of the continued challenges for the CADD faculty of teaching the large majority of classes remotely during this '21-22 academic year while also working hard to get two classes each term back on-campus. This is no small feat! Each term one of these on-campus classes has been taught at our new OMIC facility in Columbia County while the other has been taught at SE campus (where this program's courses were taught prior to the pandemic closure). It is a clear success of the CADD program that they have offered at OMIC an on-the-ground class during both Fall '21 and Winter '22 terms and are now planning to offer another during Spring '22. This growth of the CADD program with a cohort of new students at a brand new location is definitely something to celebrate!

Kudos to the CADD SAC for also developing two new online courses and one new hybrid course through the STORI development program. All instructors in CADD are now using D2L and are working toward a consistent experience for students in all classes.

CADD enrollment overall has continued to grow throughout the pandemic with a significant growth by 30% percent from '19-20 to '20-21 (potentially an outlier “rebound” after the initial effect of COVID & the rapid switch to remote education). Student success rates in their courses continue to be high despite the pivot to remote classes and with the addition of new online classes. The 100% success rate in CADD 135 and 155 and the median success rate of 84% across all CADD courses shows this. These success rates point to the clear strength of instruction across modalities.

The CADD Advisory Committee is a strong group that has supported the program throughout our largely remote operations and has continued to meet regularly (though virtually). This group provides input/feedback into industry needs to inform CADD curriculum. Lately, they have been weighing in on the potential need for a two-year degree in CADD from an industry perspective.

2. Areas of challenge or concern, if any:

After working with the CADD program this year along with reviewing the APU report and the accompanying data, there are several areas of challenge/concern for the CADD SAC in the coming year:

A. Identifying where their current students would most benefit from on-the-ground, campus-based classes as they return to more on-campus instruction in '22-23. As the number of students enrolled in CADD classes has increased throughout the pandemic, we know that the factor of travel was eliminated during our closure. In order to meet the needs of this new student group, the CADD SAC has requested geographical data to see where their current students live in order to make a data-informed decision around where to offer on-campus classes moving forward. I have already begun to work with Dieterich Steinmetz and Laura Massey to gather this data. We will hopefully have '21-22 data to look at by the end of Spring Term '22 and can utilize it to make informed scheduling decisions. With the reorganization, CADD now has potential access to computer classrooms at all four campus locations along with OMIC. This may provide additional opportunities to grow the CADD program at locations beyond SE and OMIC.

B. The accompanying data shows the following success rates for CADD 115:

Subject	Course #	Course Name	Academic Year	Total Enrollment	Total Success Rate (%)	Onsite Enrollment	Onsite Success Rate (%)	Remote Enrollment	Remote Success Rate (%)
CADD	115	Practical Math for CADD Designers & Drafters	2020-21	43	76.7			43	76.7
			2019-20	50	96	29	96.6		
			2018-19	25	88	25	88		
			2017-18	21	95.2	21	95.2		

When the success rate for the remote classes in '20-21 is broken out by Pell Grant eligibility, the success rate for those offered a Pell grant is 50% (n=10). The success rate for students not offered one is 84.8% (n=33). I'd like the CADD SAC to consider how to address this difference. Some strategies could be implementing the Persistence Project in this course next year to work on student sense of belonging and support students on a more individual basis, embedding a tutor in this course, etc. I would like the SAC to brainstorm ideas for this and would be happy to be part of that conversation. While one might think that the reason for this low success rate is modality change, unfortunately the success rate of Pell Grant offered students in this class when the class was offered on-campus in '18-19 and '19-20 was also substantially lower than for students who were not offered Pell Grants during that time period.

- C. Our two full-time CADD faculty members have regularly been teaching overloads to support their student FTE growth. This is not a sustainable practice. With this in mind, we have received approval to hire a FT one-year temporary instructor for '22-23 with the hopes of getting an additional, permanent FT faculty hire approved to begin Fall '23. Hiring of the FT temporary instructor will take place during Spring Term '22.

- D. PCC Administration continues to consider whether a Drafting & Design AAS degree demonstrates tangible financial benefit to students earning a two-year degree versus a one-year certificate. The state of Oregon requires explicit demonstration of this in order to approve a new degree. The CADD SAC will need to continue to look at labor market data and collect feedback from their Advisory committee to determine if a two-year degree is a financial benefit to our students. While a few members of the advisory committee have supported this, there has not been any indicator of the need for this degree over a certificate in the labor market data we have looked at so far in the Portland Metro area and the state of Oregon. The SAC would need to provide a list of companies that specifically want a two-year degree in order to hire an applicant versus being willing to hire an applicant with a certificate. If the SAC would like to continue to work on providing this data to the state, I suggest you look at data for the West and nationally with the assumed continuance of remote employment which will allow our students to apply for a much-wider pool of jobs on degree completion. I can help facilitate this data analysis with Dieterich and Magda if desired.

CIS had to work on showing the financial benefit for their new Website Design degree to PCC and the state. They worked with current/recent students' employers, Advisory Board companies/connections, etc. to put together a list of local companies to contact about this. They then made phone calls to these contacts and had conversations about the need for a two-year degree versus a certificate. With this, the CIS department was able to report to that "We have talked to 55 companies in the area, and 29 of them said they would consider hiring a graduate with an AAS degree."

While the CADD SAC could absolutely dedicate the time and effort to pursue this, there is no guarantee from PCC and/or the state that they will approve this degree. I would recommend carefully considering other alternatives along with this as addressed

elsewhere in this response (i.e - working with OSU, growing your current program offerings at other campuses, etc.). Please know that PCC highly values the education your students are getting in your current courses and certificate. We support you in expanding your program in the ways that make the most sense for supporting our students, and we want to help you make decisions that best utilize your limited time.

3. Reflection on goals and resources:

- A. One of the stated program goals (and ongoing challenges) is to provide student access to technology as we return to more comprehensive on-the-ground operations. As new equipment is installed in the SE CADD lab, I will work with IT and administration to rotate the old CADD computer systems into PCC libraries and other college-wide locations. I also hope we can look into installing CAD software on more existing lab and library computers across the college to address their students' technology needs in a way that will give students access to technology in close proximity to where they live/work. I have already contacted the learning/tutoring center coordinators to get the ball rolling on this.
- B. Another stated goal is to integrate new digital fabrication equipment into CADD classrooms and a potentially larger maker space. The maker space ask is on administration's list at SE after the completion of the Verizon lab in SCOM. Once the logistics of identifying spaces and equipment are complete, I will advocate for a Perkins-funded purchase of this.
- C. Another goal stated in the APU report is to look into a possible pipeline to the University of Oregon's Product Design Bachelor of Arts degree and potentially other degrees in Washington and California. Alyson and I support moving this forward and working with the University of Oregon in '22-23 to forward discussions about this. This connection could give students an opportunity beyond our current certificate that is a viable option. We would be especially interested in learning about the job opportunities that would be available to students if they transfer to these degree programs at 4-year institutions.

4. Recommended next steps:

Proceed as planned on program review schedule

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

5. Additional comments/questions:

In the APU report, the SAC asked for a few personal invitations from administration to their next advisory board meeting. I am happy to extend those invitations.

Again, thank you for the hard work that you continue to put into supporting your students and each other at PCC.