



Program Review Action Plan

Action Plan for: CADD Technologies

Date submitted to SSCPR: June 2016

Date Self-Study Report approved by SSCPR: September 2015

Date of External Review: February 2016

GOALS:

1. Investigate the opportunity of Co-op options
2. Investigate expansion opportunities at KPU Richmond and KPU 3 Civic Plaza
3. Investigate the viability of professional courses and continuing education
4. Investigate opportunities for foreign students
5. Investigate opportunities for aboriginal students
6. Formalize pathways for students not meeting entrance requirements
7. Increase integration of 3D printer and router
8. Increase experiential learning
9. Increase flexibility in the composition of credentials
10. Increase content related to writing skills and the interpretation and application of standards and codes
11. Increase program Instructor skill set by hiring Subject Matter Experts (SME's)
12. Encourage students to apply for credentials and attend convocation
13. Encourage faculty to attend convocation
14. Increase field trips and guest speakers from industry

15. Encourage students to utilize counselling, Learning Center and Library
16. Increase Faculty understanding of Admission processes and pursue increased integration and involvement with these processes
17. Continue to develop and follow a strategic plan
18. Strengthen relationships with Dean's office and other Trades faculty
19. Pursue accreditation with ASTTBC
20. Develop stronger alumni association
21. Increase Dean's office participation with PAC initiatives
22. Investigate the creation of a CADD User Society
23. Develop degree pathways for Diploma graduates

Recommendations	Report (page number)	Addressed in Goal #
Investigate the opportunity of Co-op option <ol style="list-style-type: none"> a. The External Review Committee supports a co-op option for the CADD program. b. The External Review Committee recommends that Co-op be optional as it will be directly influenced by industry and has no control over the availability of co-op terms for students. 	Page 3	1
Investigate expansion opportunities at KPU Richmond Campus and/or Surrey 3 Civic Plaza <ol style="list-style-type: none"> a. The External Review Committee recommends more IT support for the CADD program and recommends that as the program expands to offer more courses, night classes or cloud-based software, that more IT time be made available. 	Page 3	2, 3, 20, 22
Investigate the viability of professional courses and continuing education <ol style="list-style-type: none"> a. The PAC fully supports the addition of these courses, noting that time offerings would need to be strategic. b. The PAC suggested consultation with the committee for course content suggestions. 	Page 3	3

<p>c. The External Review Committee recommends that the complement of courses be increased if/when student enrollment can support them and to consult the PAC for input on location and times.</p>		
<p>Review of course entry requirements as it is currently being offered to Aboriginal students</p> <p>a. The External Review Committee recommends that the program investigates further partnerships for Aboriginal students.</p>	<p>Page 4</p>	<p>5</p>
<p>Investigate opportunities for foreign student enrolment</p> <p>a. The External Review Committee recommends the CADD program continue to review available funding for foreign students and maintain minimum course entry requirements.</p>	<p>Page 4</p>	<p>4, 6, 23</p>
<p>Quality of Course Educational Design</p> <p>a. The External Review Committee recommends that the CADD program have defined pathways for students not meeting entrance requirements. This is attractive to students who need to upgrade, and can also apply to potential mature or immigrant students.</p> <p>b. The External Review Committee recommends that the CADD program review software upgrades with a possible industry alignment and a focus on the customization of previous versions.</p> <p>c. The External Review Committee recommends increased integration of 3D printers and routers in the program.</p> <p>d. The External Review Committee recommends that the faculty involve the PAC in creating partnerships to use other resources such as a wiring lab/PLC within the CADD program.</p> <p>e. The External Review Committee recommends that the CADD program increase experiential learning by refining and adapting course material - as it relates to industry - following consultation with industry partners.</p> <p>f. The External Review Committee recommends increased flexibility in the composition of credentials.</p> <p>g. The External Review Committee recommends Increasing content related to writing skills and the interpretation and application of standards and codes</p> <p>h. The External Review Committee notes that KPU should recognize the time and energy the CADD instructors spend staying current in a constantly evolving discipline.</p>	<p>Page 4</p>	<p>3, 6, 7, 8, 9, 10, 11, 18, 21</p>

<p>Quality of Educational Experience</p> <ul style="list-style-type: none"> a. The External Review Committee recommends increasing the program’s skill set by hiring Subject Matter Experts (SME’s). b. The External Review Committee recommends encouraging students to apply for their credentials and attend convocation. c. The External Review Committee recommends faculty or a faculty representative attend convocation. d. The External Review Committee recommends increasing field trips and including guest speakers from industry to speak with students. 	<p>Page 5</p>	<p>11, 12, 13, 14</p>
<p>Student Satisfaction with Services, Resources and Facilities</p> <ul style="list-style-type: none"> a. The External Review Committee recommends continued encouragement of students to utilize counselling, the Learning Center and the Library b. The External Review Committee recommends investigating an increase for either the Program Assistant (currently at 17.5 hours/week or IT Support for any needs that require server expansion) and/or considerations for multi-campus offerings. 	<p>Page 5</p>	<p>15</p>
<p>Faculty Satisfaction with Services, Resources and Facilities</p> <ul style="list-style-type: none"> a. The External Review Committee recommends that all faculty receive instruction on registration, registration dates and times to be able to assist CADD students. b. The External Review Committee recommends increasing involvement by the CADD department for new program applicants. c. The External Review Committee recommends the CADD program continue to develop and follow a strategic plan. d. The External Review Committee recommends strengthening relationships with the Dean’s office and other Trades’ programs faculty. e. The External Review Committee recommends the CADD program continue to work with other Trades faculty with respect to projects and demonstrations such as welding, fabrication and framing that would support learning for CADD students. f. The External Review Committee notes that CADD faculty have taken on projects beyond the scope of their work to assist students with registration, provide alumni events to maintain industry contacts and to continue to improve the program off the sides of their desks. Providing an increased budget or increasing chair release 	<p>Page 6</p>	<p>8, 16, 17, 18</p>

<p>time would remove some stress on faculty and improve their capacity to continue to provide these resources to students and graduates.</p>		
<p>Quality of Program Relationships and Connections</p> <ul style="list-style-type: none"> a. The External Review Committee recommends accreditation with ASTTBC b. The External Review Committee recommends the additional resources of time and funding required to continue with event planning for Alumni events. c. The External Review Committee recommends that Faculty and Alumni be encouraged to investigate the possibility of establishing an Alumni Chapter. This will also provide an avenue to apply for further funding for other events and initiatives. d. The External Review Committee recommends that the CADD program invite the Dean’s office to participate in PAC and Alumni initiatives. e. The External Review Committee recommends exploring the creation of a CADD User Society. f. The External Review Committee recommends developing degree pathways for Diploma graduates. 	<p>Page 7</p>	<p>19, 20, 21, 22, 23</p>

SHORT-TERM AND LONG-TERM PLANNED ACTIONS.

GOAL #1 Investigate the opportunity of Co-op options:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
<p>We will re-apply to the Co-op Program and attempt to address the issues encountered in the past when our request was rejected.</p>	<p>CADD Program Chair</p>	<p>Co-op application target:</p>	<p>January 2017</p>	<p>In 2011 we made application to the Co-op Program which was denied. It was explained at that time that this decision was based primarily on the funding requirement and not on the merit or proven</p>

		November 2017		demand for a Co-op. One of the major concerns was that through Co-op a student is required to pay for an additional 1.5 credits for the administrative requirements of the Co-op Program.
We will develop a Work-placement program.	CADD Program Chair, PAC Chair,	Discussions with PAC have already begun regarding Work-placement	January 2017	We anticipate that current Diploma students will interact with our PAC (and others as we can expand this opportunity) to be available for part-time and/or intermittent employment opportunities while they attend classes and in semesters where they are not attending classes. Our current scheduling of Diploma level classes is in the evenings to make possible daytime employment opportunities. It is reasonable to expect that this type of non-funded program could be put into practice by January 2017.

Long-Term Planned Action(s)	Led by	Begin on		Anticipated Completion Date	Notes
<p>With any degree of good fortune, we envision that the Work-placement program should be successful and will require only minimal administrative effort from the CADD department. We anticipate that it will become a relationship between the PAC (and others) and our current students where the CADD department will act largely as an intermediary to:</p> <ol style="list-style-type: none"> 1. Communicate this opportunity to students 2. Provide oversight to ensure that the intent of the program is being maintained 3. Ensure that our students' well-being and benefit is being maintained 4. Ensure that the benefit to Industry is maintained through applicant screening, consultation, etc. 	CADD Program Chair, PAC Chair, KPU Co-op Administration	September 2017		January 2017	The Co-op application information has been prepared and organized in the effort from 2011 with current data required to update its content. If funding is able to be secured we will follow the guidelines involved to support this program and manage the student – Industry relationship to ensure its success. If the Co-op is approved we will re-visit the Work-placement program to determine, together with the PAC, if it should be discontinued.

GOAL #2 Investigate expansion opportunities at KPU Richmond and KPU 3 Civic Plaza:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Promote the move of all or part of the CADD Technologies Program into 3 Civic Plaza at every opportunity.	CADD Program Chair, CADD Faculty, Dean – Trades and Technology	January 2015	September 2017	We feel strongly about offering our program on a multi-campus basis and feel that our survey data and research support this position. Prior to 2008 we delivered courses in Newton, Richmond and Langley. We have been involved in the Search process for 3 Civic Plaza and the Richmond campus and have been informed that our program is considered a good candidate. We plan to continue to follow-up as necessary on these opportunities. In addition, we have conducted some internal research into computer lab space availability and found that our computer processing requirements and scheduling needs present problems when we attempt to schedule into the limited computer lab space available at other campuses. However, we have been able to determine that we can schedule access to KPU laptops to enable “portable classroom” potential. The limits to this model are apparent when we look at equipment and support requirements for courses beyond the 1 st Semester. We have discovered that the Interior Design program student laptop leases expire August 1, 2016. Purchasing these units for the CADD Department (at a great discount) would provide us with greater control and flexibility and intend to pursue this with our Dean. Together with IT we have determined that these laptops can manage our software needs and can be made available to accommodate our scheduling needs. We anticipate that this will enable us to plan, prepare and deliver

				future course options according to our multi-campus vision.
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Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
We hope that our efforts will see the CADD program newly located at 3 Civic Plaza and offering additional courses via a Portable Classroom format to all KPU campuses. We already have strong connections and survey data that indicate needs in Science and Engineering, the School of Design and Trades and Technology. Our software is now “Cloud Based” and very IT friendly to this format.	CADD Program Chair, CADD Faculty,	September 2017		

GOAL #3 Investigate the viability of professional courses and continuing education:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Create 5 to 7 CE and CPS courses designed to operate from 3 Civic Plaza	CADD Program Chair, CADD Faculty, PAC Chair	October 2015	January 2017	Together with our PAC, we have determined that there is a need for both professional courses and continuing education course offerings (CPS and CE). The CADD department has offered this type of course previously, marketed it extensively, and found that our current location in Cloverdale is a strong deterrent to success. As noted in Goal #2 above, the ability to operate a portable classroom will make this initiative viable. Lead by our PAC, we have already developed a course format (course duration, cost,) and identified 5 to 7 current topics to be developed into course materials. We anticipate having some courses prepared and available by January 2017 and being able to provide them at a more appropriate location.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
<p>Our Long-Term Plan in this regard has two scenarios:</p> <ol style="list-style-type: none"> 1. Our program is moved to 3 Civic Plaza and we provide both Based Funded and non-Base Funded courses at this location. This location will be ideal for offering CE and CPS courses in CADD Technologies. 2. Our program remains in Cloverdale (or moves to Richmond) and we use our Portable Classroom to provide CE and CPS courses in addition to offering them at 3 Civic Plaza. 	CADD Program Chair, PAC Chair	October 2017		Under either scenario, we will continue to work with our PAC to identify current Industry training needs and work towards providing an expanded course offering through this method.

GOAL #4 Investigate opportunities for foreign students:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
We will remain in contact with the International Students Office to ensure that they have current program information to provide to student inquiries and work with them in relation to Goal #6.	CADD Faculty, Dean's Office Trades and Technology	Ongoing		We have seen a steady increase in the number of International students who attend our program. As indicated on page 19 of our Self-Study " <i>There has been an increase of International students accepted into the CADD program since the start of the new undergraduate program. Acceptances have gone from one in 2009 to ten in 2015.</i> " We have had discussion with our Dean regarding expanded International Student opportunities which include the potential to provide a full section of fully funded courses. We will continue to support this type of initiative though we do not have direct access to these negotiations.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
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<p>We anticipate that KPU will have an increased interest in attracting International students. We will support these initiatives in any way that we can and feel that CADD is well placed as an attractive program for these students. We expect an increased number of International student applicants over time.</p>	<p>CADD faculty, Dean's Office Trades and Technology, International Students Office</p>	<p>Ongoing</p>		
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GOAL #5 Investigate opportunities for aboriginal students:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
<p>Develop a Math/CADD Discovery Program with a non-profit partner.</p>	<p>CADD Faculty Members</p>	<p>October 2015</p>	<p>June 2016</p>	<p>We are currently working with a non-profit organization called "Eagles of Tomorrow" with the intent of developing a Discovery program in Math and CADD. Through this program we intend to provide Aboriginal Students an opportunity to improve their options for studies in science and technologies. We see this as an opportunity to present Drafting and Design as potential career opportunities in addition to providing a good social service to the community. The course is being funded entirely by the Eagles of Tomorrow. Final preparations are underway as of April 2016 with a first class planned for July 2016 at the Native Education College (NEC) and in August at KPU. We have a table at the Info Fair at the KPU Aboriginal Open House on April 27/16. The Portable Classroom referred to in Goal # 2 will allow this program to be delivered effectively. One of our faculty members is taking a course at UFV called Indigenizing Curriculum to assist our program in content delivery with sensitivity to Aboriginal cultures.</p>

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Building on the success of this first initiative, expand this opportunity to create access to a larger Aboriginal Community	CADD Faculty Members	October 2016	September 2017	After we have run the above noted course(s) we will examine if this format can be extended to other Aboriginal Communities or offered to other Aboriginal Education facilities. Since we have already developed many web-based tools in the CADD program we will examine if this course can be provided to remote communities and smaller communities province wide. In addition, this experience will help us to see if other parts of our current curriculum could be modified into a remote-learning format to serve the Aboriginal Community at large.

GOAL #6 Formalize pathways for students not meeting entrance requirements:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Create a formalized pathway and information method to keep these students at KPU. See also Goal #23	CADD Program Chair, Office of the Registrar, Admissions, International Students Office	March 2016	January 2017	We are currently in discussions with the Office of the Registrar, Admissions and the International Future Students offices to develop methods to help with this goal. We are making efforts to understand how "Transitions" is to be navigated towards this end. Our first priority is in identifying those students with this need so that they can be channeled correctly into existing upgrade options or placement testing in Math and/or English in a timely fashion. International Students present a different challenge in that they are not always available (and it is not reasonable) to write placement tests. We are working towards a method where online testing may become an option. We believe that these initiatives will take a more

				formalized shape before the September 2016 intake.
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Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Maintain the Pathway established above by monitoring KPU policy changes and CADD Program entry requirements.	CADD Program Chair, International Students Office	Ongoing		We hope that our efforts will lead to a standardized method for dealing with this Goal. Our program has multiple intake opportunities through the year so we are well suited to dealing with positive solutions for students with this need. We have very limited part-time seat availability each semester but there is some opportunity for students to attend regular classes while they obtain the necessary upgrading to integrate into the regular course flow. We will monitor this process over time to ensure that administrative changes are integrated into methodology. In addition, it is apparent that the different affected parties must continue to communicate and cooperate in sharing information.

GOAL #7 Increase integration of 3D printer and router:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Purchase additional equipment and facilitate Instructor training in these areas.	CADD Faculty	December 2015	May 2016	In March 2016 we purchased a second 3D Printer for the department to allow for further integration and access to this resource. We continue to examine/re-visit this technology as it changes and progresses towards lower priced and better performing hardware to ensure that our applied budget is fully utilized effectively. We have arranged for some training in the use of our Roland Desktop router to help faculty safely implement this tool into their instruction.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Increase course material integration and expertise in this technology	CADD Faculty	On-going		We can see where this technology is going to continue to grow in its significance and can foresee when we will have multiple units with various special applications. Much like computers, we may see a day when each station or group of stations will be suitably equipped with a 3D printer. We will monitor capital purchases over time to allow for technological advancements and industry applications to be continually implemented.

GOAL #8 Increase experiential learning:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Examine how Experiential Learning can be expanded into other areas of the CADD Program	CADD Program Chair, CADD Faculty, Dean – Trades and Technology	June 2016	September 2016	In CADM 1250 our students spend a full week in the Millwright/Welding shop working with and being trained in the use of various tools to produce a component or assembly that they have designed in the course. The evident success and acknowledgement of the students to this experience shows us the benefit of seeing this practice expand. Our first challenge will be to re-examine our current course outlines to see how this can be effectively accomplished without compromising the need to cover course content. We will be starting this process of course outline examination/updating for various other reasons as well but will including this aspect in our considerations.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
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Create other opportunities for Experiential Learning through course offering expansion in CE and CPS courses	CADD Program, Deans Office: Trades and Technology	January 2017	September 2017	It seems reasonable to assume that the success of Experiential Learning may lead to other CPS or CE course development to be able to provide this opportunity to students. We face a significant challenge in meeting course content outcomes with a 13 week course delivery schedule. Developing this type of cost-recovery course may also benefit students and KPU by providing this opportunity to a larger community of KPU and other students and in being able to provide this experience to other areas of specialty such as Architectural, Structural, Electrical, HVAC, Carpentry, etc.
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GOAL #9 Increase flexibility in the composition of credentials:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Update all course outlines and prepare a Program Change for Senate approval to create a flexible composition of credentials.	CADD Program Chair, CADD Faculty	June 2016	April 2017	We are ready to start a process of re-examination of all course outlines and credential composition. Our intent is to see if we can draft/plan additional course outlines to focus on certain areas of specialization that are Industry and economy sensitive. These specialized areas can include fields related to material handling, resource extraction, technological advancements, software platforms, systems design etc. The second stage of this process is to prepare program changes for Senate approval that will see flexible course composition in our credentials. For example: a Certificate with a Structural Specialty will see a requirement for 4 courses at CADS 12XX level instead of 4 defined courses. We will need to examine how this affects other agreements such as MOU's, Block Transfer Agreements and Articulation. The other benefit to this process will be in assisting the development of degree pathways for students who will require

				bridging courses to accomplish this goal. A flexible credential may allow for a broader selection of electives to help accommodate this educational pathway.
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Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Create additional courses in step with PAC, Industry and economic conditions to be introduced into current CADD Program offerings.	CADD Faculty	September 2017		Successful execution and approval through Senate of the above noted program change will lead to the development of the various new course outlines and the subsequent approval processes involved. Through our PAC and other sources we will monitor economic and industry patterns to adjust our course offerings appropriately. We will continue to develop new courses as dictated by current circumstances without having to apply for program changes to update credentialing.

GOAL #10 Increase content related to writing skills and the interpretation and application of standards and codes:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Since this area is included in our current course outlines we will introduce discussion at department meetings to reinforce this goal.	CADD Program Chair	May 2016		In September 2015 a researched blog post and technical report feature was introduced into CADD 1161.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Through consultation with our PAC and with steady input from our Instructors we will monitor this effort, need and subsequent student performance. Feedback will be provided to faculty regularly through department meetings.	CADD Program Chair	October 2016		

GOAL #11 Increase program skill set by hiring SME's:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
As employment opportunities arise, we will structure our searches to place a priority on expanding faculty Subject Matter Expertise (SME)	CADD Faculty Search Committee	Ongoing		In February 2016 we obtained a 50% regularized faculty appointment, who is a SME in REVIT software in response to this Goal. With such a wide range of software products and employment specialties this Goal will be an on-going challenge. Regularized faculty positions are not consistently available and the hiring of NR1's has inherent problems such as consistent course content delivery, onerous hiring procedures and a lack of NR contribution and commitments to regular department responsibilities. Our short term plan will be to continue to encourage existing faculty to stay current in their fields of expertise and to maintain exposure to new software opportunities.

Long-Term Planned Action(s)	Led by	Begin on	Completed by	Notes
New SME hires will continue to depend on the timeframe of existing faculty retirement and/or replacement. This precludes the possibility of faculty expansion.	CADD Faculty	Ongoing		An option to explore will be to use CPS and CE courses as areas where new instructors with relevant SME can be utilized effectively on limited engagements.

GOAL #12 Encourage students to apply for credentials and attend convocation:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Introduce the completion of Credential Applications as part of course materials.	CADD Faculty	April 2016		We held discussions in our February/16 and March/16 department meetings on this topic. It was determined that Instructors would coordinate each

				semester to ensure that classes/cohorts completing a credential would complete the appropriate applications in one of the classes currently being attended. This will help to overcome the main obstacle, which is, having students voluntarily apply upon course completion in a program with multiple exit points and credential opportunities.
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Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
We will monitor the success of this initiative through its first phase of implementation and continue to bring this issue forward through department meetings. If changes are warranted over time we will continue to address as required.	CADD Faculty	Ongoing		

GOAL #13 Encourage faculty to attend convocation:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Pre-schedule involvement in this and other program activities through a coordinated calendar.	CADD Faculty	March 2016	March 2016	In March 2016 we introduced a Program Activity Calendar at our department meeting. It contains the dates and descriptions of all the various activities outside of instruction that are included in the CADD calendar. Convocation is included along with many other similar activities that require faculty contribution and attendance to various levels. The calendar allows faculty to pre-schedule their involvement and allows for a fair distribution of contribution to these events. This year there are 4 confirmed faculty members attending Spring 2016 Convocation. Typical Chair functions and responsibilities and committee work are not included in the calendar.

Long-Term Planned Action	Led by	Begin on	Anticipated Date of Completion	Notes
Maintain the calendar with current dates and events, encourage and maintain faculty attendance as a Department Meeting Agenda item.	CADD Faculty	Ongoing		The Program Activity Calendar is posted on our Sharepoint site so it will remain accessible to all faculty over time. At the start of each semester we intend to update the calendar so that we can continue to forecast involvement 9 months to a year in advance. We expect that this will effectively keep attendance at Convocation and other events well attended and shared appropriately.

GOAL #14 Increase field trips and guest speakers from industry:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Since this area is included in our current course outlines under Learning Activities we will introduce discussion at department meetings to reinforce this goal. Several of our Instructors have already successfully integrated this goal into their regular course delivery.	CADD Faculty	May 2016		

Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Progress will be monitored over time and encouraged collegially.	CADD Faculty	Ongoing		Continued encouragement in this area should lead to a steady growth in it being integrated into regular course delivery methods.

GOAL #15 Encourage students to utilize counselling, Learning Center and Library:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Implement methods where students are informed and encouraged in the use of available on-campus student resources.	CADD Faculty	January 2015	January 2015	Each semester we have students participate in a safety orientation that includes a “walk-about’ of the campus to identify various services and features of the campus. We have produced our own video to orient students according to KPU Emergency Protocols that students are required to watch. At the end of the orientation students are required to complete an acknowledgement of participation. In

				<p>addition, when they take their first semester, students participate in a Library orientation that provides information on Learning Centre and Library features. We use our department meetings to keep faculty informed about other initiatives such as “First Alert” to help guide and assist students displaying difficulties. Our program runs courses in the evenings when full services are not always available at the KPU Tech campus. This is a concern to us and we have brought this issue forward to the Dean’s office through the Chairs Meetings. We have always been conscious of this goal and historical efforts have included inviting Counselling for a workshop for CORE students, Library orientations, workshops, the Learning Centre and Peer tutoring.</p>
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Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
We will monitor the efforts of the Dean’s office to increase student access to counselling services after regular hours. We shall continue to inform faculty on current initiatives through information and discussions at regular department meetings. We shall monitor student responses to campus services.	CADD Faculty	Ongoing		

GOAL #16 Increase Faculty understanding of admission processes and pursue increased integration and involvement with these processes:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Undertake meetings and information gathering efforts with Admissions and the Office of the Registrar to better understand current process under “Transitions”. Translate	CADD Program Chair	April 2014	April 2016	Since April 2014 we have held several meetings with and consulted with Admissions and the Office of the Registrar to determine how “ Transitions” can be interpreted for the benefit of our program and

<p>this information into the CADD Program effectively to the benefit of students and faculty.</p>			<p>our students. We encountered a few rough moments but have now arrived at a good understanding of current KPU process. As a result of these consultations we have undertaken a significant change in how we manage program applicants. In November 2015 we prepared a Program Change proposal to see all program applicants participate in a mandatory Information Session. This change was based on the fact that our Program contains many non-intuitive features such as multiple intake opportunities that have created difficulties for our Program Applicants and for our Admissions officers. The most significant challenge proved to be an inability in the current process to waitlist, or, carry-over applicants from one intake into the next. In effect, we anticipate that this Information Session will help inform applicants of the nuances of our program and the Admissions process so that we assist and now retain students that in the past have become frustrated and lost. In anticipation of approval, we have been working with Admissions and the Office of the Registrar on a set of protocols that would make this change operational. This protocol was completed in early April 2016. Also In April 2016 the Program Change received final Senate approval, has been included into the current Calendar, and is set to become operational for the September 2016 intake. The first Information Session is scheduled for May 11, 2016. We feel we now have a well-informed understanding of the current Admissions process and a positive working relationship with the personnel and administrators in these administrative departments.</p>
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Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
We shall monitor the effectiveness of this initiative and continue to work with Admissions and the Office of the Registrar to manage these affairs. We will monitor also if these departments are able to provide stable personnel in the form of Admissions Officers to our program, this has been a problem historically. We shall keep CADD Faculty informed of the processes of Admissions by involving them in the Information Sessions and through topical discussions in our department meetings.	CADD Program Chair	Ongoing		

GOAL #17 Continue to develop and follow a strategic plan:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Develop a new strategic plan upon the completion of the Program Review.	CADD Program Chair	September 2016	October 2016	In 2011 our Department participated in a Strategic Planning Session. Some of the results of this session are represented on page 16 of the Self Study document in the form of the S.W.O.T. Analysis Table. This session provided us with a strategic plan that has guided us through several years of change. In September 2016 the department will examine whether the timing is now appropriate to participate in another similar planning session. With the Program Review nearing completion it seems an appropriate time to re-visit this effective guiding process.

Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
5 to 7 year seems to be an appropriate time frame to re-visit this process. Perhaps we can anticipate re-visiting this again after the next Program Review.	CADD Program Chair	September 2021		

GOAL #18 Strengthen relationships with Dean’s office and other Trades faculty:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Continue to book regular information sharing meetings with the Dean and make invitation to the Dean’s office to participate in all CADD undertakings.	CADD Faculty, Office of the Dean	Ongoing		For several years, the KPU Tech campus has been subject to change at the Dean’s office level. This rate of change made the development of relationships difficult. We have seen a better state of stability since September 2015 at the Dean’s level but have an underdeveloped relationship at the Assoc. Dean’s level. We have made ourselves available and approachable to the Dean’s office and presently enjoy a relaxed and open dialogue. We anticipate that we shall continue to work positively in this manner. CADD faculty have been encouraged to participate at the various committee levels so that relationships with the Trades faculty can be further developed. We are pleased with the current state of cooperation in the planning of our CADM 1250 course which requires the cooperation of the Deans office, the CADD Department and Millwright instructors to facilitate the Experiential Learning component of the class. The CADD program continues to provide drawings and other services to other KPU departments upon request in an effort to create and encourage greater levels of cooperation.

Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Relationships are a two way street. We hope that stability in the Deans Office will lead to longer and stronger relationships built of mutual respect and hard work. We intend to participate in this effort with openness and vigor.	CADD Faculty, Office of the Dean	Ongoing		

GOAL #19 Pursue accreditation with ASTTBC:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Prepare a new matrix of comparison between current CADD course materials and the newly established ASTTBC accreditation process.	CADD Program Chair, CADD Faculty, ASTTBC	October 2013	November 2016	In October 2013 one of our Faculty undertook an analysis of current ASTTBC accreditation (see Appendix O of the Self Study submission). We used the Canadian Technologies Accreditation Board (CTAB) standards to prepare a matrix to compare our program strengths to the National Technology Benchmarks for the Technician level. Unfortunately, ASTTBC has undergone changes where CTAB is no longer the standard that they use and are undergoing conversion to using Technician Accreditation Canada (TAC). Unfortunately again, TAC did not at that time have an accreditation process in place. ASTTBC has acknowledged that they would work with us towards accreditation by sponsoring a KPU Grad through their process. We have recently been informed by a KPU CADD Diploma Grad that they have just received ASTTBC accreditation. We are in the process of obtaining information on this success and intend to pursue this current good turn of events. Our intent is that the CADD Technologies program will receive accreditation, therefore, an analysis of the TAC accreditation process and current ASTTBC methodology will help us to identify course curriculum changes necessary to achieve this goal.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Make whatever efforts are necessary to obtain ASTTBC accreditation for the CADD Program.	CADD Program Chair,	November 2016	September 2017	After a review of the TAC accreditation process and the preparation of a new matrix of comparison to assist in the analysis of our current course

	CADD Faculty, ASTTBC			materials, changes to course outlines etc. will need to be carefully considered but are consistent with our view that our program will move towards ASTTBC accreditation as a necessary endeavor.
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GOAL #20 Develop stronger alumni association:

Short-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
Investigate the benefits of creating a CADD Alumni chapter and communicating this benefit to current students and Alumni.	All Faculty, KPU Alumni Association	September 2016	January 2017	In December 2014 we held an Alumni event with limited success. We identified our largest challenges as being an outdated contact list, the Cloverdale campus location, and the lack of significant obtainable funding. We have had department level discussion on how to correct this but, by virtue of the definition, an Alumni Association is intended to be operated by program graduates. We have determined that we need to maintain a student contact database to assist in this process and we have started to use LinkedIn for this purpose. Fundamentally, we need to work towards the development of a mindset in our students towards seeing the value of Alumni participation. This topic will be included in the Strategic Planning Session spoken of in Goal #17.

Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
We see that an active CADD Alumni will be beneficial to the program and to our grads. After the development of a plan we will work towards this initiative being successful.	CADD Faculty, KPU Alumni Association	January 2017		

GOAL #21 Increase Dean's office participation with PAC initiatives:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
<p>We feel this Goal will work closely with Goal #18 relating to a strengthened relationship with the Dean's office. We will continue to ensure that the Dean is invited to all CADD functions and would like to encourage a greater degree of attendance. The PAC is unique and would like to see this relationship demonstrate a direct appreciation for this form of Professional and Industry level interest in our program.</p>	<p>CADD Program Chair</p>	<p>April 2015</p>	<p>Ongoing</p>	<p>According to the PAC Guidelines the Deans office and the PAC are to communicate directly through the PAC Chair with the CADD Department acting as advisors and contributors only. One of the fallouts of several years of turmoil spoken of in Goal #18 was that the PAC was left unattended by the Dean's office and meetings were not scheduled for several years. In April 2015 we took the initiative to revive the PAC and organize renewed membership and a meeting. Since then we have enjoyed Bi-annual meetings and healthy participation but have managed this through our Department Chair and the PAC Chair. The PAC Chair is assuming control of PAC activities and the Dean's office is being invited to participate at every opportunity. We have just created a "Cloud Based" PAC site to archive meeting minutes, information topics, etc. to provide PAC members and the Dean's office easy access to this information. We anticipate that this will assist in creating good communication pathways between the PAC membership, the Dean's office and the CADD Department.</p>

Long-Term Planned Action	Led by	Begin on	Anticipated Completion Date	Notes
<p>We anticipate that the current trend will result in a vigorous relationship between all interested parties. We intend to monitor the relationship between the PAC and the Dean's office and provide input as appropriate to ensure that meetings are sponsored, attended and productive.</p>	<p>CADD Program Chair</p>	<p>Ongoing</p>		<p>We feel a little apprehensive about losing some measure of input and control over some elements of the PAC to ensure that it does not suffer the same form of neglect encountered previously.</p>

GOAL #22 Investigate the creation of a CADD User Society:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
Continue planning program development opportunities in conjunction with Goals # 2 and #3 above.	CADD Program Chair, CADD Faculty	January 2013		There already exists a Vancouver Autocad User Society (VAUS) so we do not see that duplicating this effort would be useful. In CADD 2160 students attend a meeting of this user group. However, there are now many significant software platforms that are common to industry and to our program. In 2013 we tried to initiate a type of multi-platform user society in the form of a Drop-in training format but our location in Cloverdale has continued to present challenges to these efforts and we did not generate sufficient enrolment despite considerable support for the format. Our short term efforts will probably be restricted to planning as outlined in Goals #2 and #3 above.

Long-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes
The development of, and access to the 3 Civic Plaza location will greatly enhance the likelihood of success to a CADD User Society. In addition, we can see a direct relationship between a User Society and our initiatives in the area of Alumni Chapter development noted in Goal #20.	CADD Program Chair, CADD Faculty, CADD Alumni	September 2017	Ongoing	

GOAL #23 Develop degree pathways for Diploma graduates:

Short-Term Planned Action(s)	Led by	Begin on	Anticipated Completion Date	Notes

<p>Continue to formalize articulated pathways for CADD program graduates into degree programs.</p>	<p>CADD Program Chair, CADD Faculty</p>	<p>August 2010</p>	<p>April 2017</p>	<p>There are 4 areas where we are currently focusing on to secure and promote degree pathways for our Diploma students.</p> <ol style="list-style-type: none"> 1. BTech Degree – KPU: in August 2010 one of our faculty was instrumental in completing the FPP for a BTech Degree. It received Senate approval and later received approval from the Ministry of Advanced Education. It has never received funding to run despite very strong support from Industry, Trades and Technologies. We still see this as the strongest and best way to secure a degree pathway for our students and the multitude of trade accredited professionals requiring a degree for employment advancement opportunities. We have, and will continue to petition the administration at all opportunity to re-visit the tremendous opportunity that supporting this degree would represent. Last year we held several discussions with the Dean of Trades and Technologies to discuss implementation requirements for the BTech and some effort was funded to determine the course composition and new course development requirements. 2. Construction Management Degree – BCIT: We are developing a good relationship with BCIT in creating a stable pathway for our CADD Diploma Grads to transition into this degree. As in most articulation efforts of this nature, we anticipate a semester of bridging courses is required to accomplish course prerequisite needs and other academic requirements. We have seen 2 or 3 of our Diploma grads accepted into this pathway in the last two years.
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				<p>3. Business Degrees – KPU: Changes to process at KPU has seen some difficulties arise in creating a seamless transition into this degree program. Up until recently, any 60 Undergraduate credits were sufficient to gain access into the 3rd year of these programs. Changes to this process, in large part due to changes in prerequisite requirements to 3rd and 4th year courses, have made this transition a little less seamless. Since August 2015 we have undertaken discussions with the School of Business to prepare a more stable pathway for CADD Diploma Grads with the intent that we may integrate some flexibility in our own Diploma course composition for students who declare their intent to transition into a Business Degree, and, to allow them to create an Educational Plan that may include plans for a Bridging semester as required.</p> <p>4. Building Science Degree – TRU: In March 2015 we participated in meetings with TRU with the intent of preparing an Articulated Pathway for CADD Diploma Grads to transition into the 3rd year of their Building Sciences Degree. We were able to identify the need for KPU to create 3 new courses that would create a seamless pathway into the 3rd year of this degree. We have not proceeded with preparing an MOU or with course development as a result of budget restrictions at all levels at KPU and the unlikelihood of receiving appropriate funding. Instead, we are in the process of re-working our efforts to see how we can prepare a pathway for our students to</p>
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				<p>complete their bridging requirements at another Institution.</p> <p>We intend to seek other degree opportunities that are appropriate for our Diploma Grads.</p> <p>In addition to these degree pathways, we have in place an MOU with KPU Engineering that provides for Engineering students to transition into the CADD program to complete a Certificate or continue into the Diploma with transfer credits from their 1st year in Engineering. This summer we have 3 KPU Engineering students enrolled into CADD program courses.</p> <p>In 2008 we completed an MOU with the SFU School of Mechatronic Systems Engineering (MSE) providing them with the same transfer credit opportunity as provided to KPU Engineering students and where KPU CADD students were given certain transfer credits into the SFU MSE program. In 2013 this MOU became obsolete as the SFU MSE program underwent program level changes. We were able to provide alternative pathways to SFU MSE students over 2014 and 2015 but were no longer able to provide this option in 2016. We are currently working with SFU MSE to re-negotiate this MOU in recognition of its value to both Institutions and students. Even with this circumstance, we were able to secure 4 SFU MSE students into the CADD program this summer. Since 2008 we have seen approx. 27 SFU students participate in this MOU with most completing a Certificate in CADD Technologies with a Mechanical Specialty. We know of at least one CADD Diploma grad that has transitioned into the SFU MSE program.</p>
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Long-Term Planned Action(s)	Led by	Begin on	Completed by	Notes
We firmly believe that this initiative is the most important “next evolution” of our program and anticipate that several initiatives in this regard will be developed over 2016-17. We anticipate that we will have formal articulated pathways in place with all the Institutions and degree programs noted above by April 2017.	CADD Program Chair, Dean Trades and Technologies	September 2016	April 2017	

May 27, 2016

Senate Standing Committee on Program Review Kwantlen Polytechnic University

Institutional Response: Computer-Aided Drafting and Design (CADD) Technologies

As Dean of the Faculty of Trades and Technology, and on behalf of the Provost and Vice-President Academic, Dr. Salvador Ferreras, I would like to congratulate the faculty and staff of the CADD department for their efforts and commitment in undertaking this comprehensive program review and for their readiness to make a strong and positive contribution in the next steps they have identified in the Program Review Action Plan.

We would also like to acknowledge the leadership of Daryl Massey, Chair of the department, and thank him for very effectively leading the team in this endeavor.

The recommendations and responses outlined in the Program Review Action Plan are extensive and will need the combined support of the program faculty and staff, Dean's Office, and institution to realize them. The majority of the issues identified, and the recommendations and responses that arise from them, are consistent with KPU's mandate as well as the Faculty of Trades and Technology's direction and vision, and therefore are supported.

The need to establish and align the program's vision and mission with KPU's Vision 2018 and Academic Plan, the Faculty of Trades and Technology's growth in Advanced Manufacturing and Clean Technology, and best practices in flexible, quality pedagogy is a high priority. KPU's CADD program enjoys a strong and positive reputation on account of its rigorous curriculum and teaching standards. In order to maintain up-to-date currency and to adopt leading best practices, it is essential that proposed program and curricular changes (some already underway) respond to current industry needs and that the program pursue the continued professional development of its faculty. As identified in the action plan, this will involve engaging subject matter experts in teaching, focused professional development, and implementing curricular revisions, including the incorporation of the learning outcomes and content areas identified. The program is in a good position to move forward with this; in fact the faculty have already begun to incorporate many of the recommendations within the current curricular framework.

The department is indicating a will and desire to grow programmatically. This is supported by the institution. Progress is evident through ongoing relationship and programmatic development that supports student mobility between KPU and other Universities, Institutes and Colleges. Consideration of curricular changes or additions may be required to create access points for First Nations and international students.

The department is committed to supporting students in diploma and degree pathways to ensure a seamless pathway to professional technician and technologist designations.

Student participation in industry through various means, such as work practicum, work experience, mentorship with alumni is encouraged. Increasing integration of technology is also seen as a valuable area of focus. This may include integration of technology found in architectural, drafting, and related engineering firms such as 3D printers and CNC routers.

Professional development is a key focus in supporting industry and student needs. It has been suggested that improved access for potential clients and students would be facilitated by building the capacity to have the program 'mobile'; able to work out of any campus or business location without significant reduction in quality of delivery. This may be supported through student-owned laptops, flexible delivery times, use of remote access technology, and moving the main operations closer to Skytrain and main bus services.

The CADD program reduced capacity from 24 to 20 students some time ago, struggles with low student enrolment particularly in the summer semester while it remains difficult to fill spring courses. Discussion with the Provost, Dean, KFA, Registrar's office, and faculty members is ongoing with regards to identifying student access to courses and programs. Both 3 Civic Plaza and the Richmond campus have been identified by the department as locations where they may have greater access to students. Access to Skytrain and bus service is critical. The Richmond campus is close to the School of Design and the Faculty of Science and Horticulture - Applied Physics. These are identified by the faculty as being ideal in supporting cross faculty educational opportunities, which are encouraged by the institute.

Given that there will be no increase in budget allocated to the CADD program, further requests for staffing or faculty/chair release, technology, resources, and professional development, will have to be considered within the existing budget structure; any potential increases in one area would need to be from the reallocation of funds from another area of the CADD budget. In light of this, the Dean's Office will support the investigation of other funding opportunities, including funding available through the

Office of Research & Scholarship, 0.6% Faculty PD Funding, and other alternatives such as non-base funded Continuing and Professional Studies. Over time, as the latter initiative develops across the Faculty, the department may be able to apply to the Dean's office for initiative funding.

The Dean's Office is fully committed to making strong and positive connections throughout the university to ensure that systems for students and faculty are effective and access to support is readily available. I will assist the Associate Dean and department Chair in making further connections with key parties in order to facilitate smoother operations. Productive relationships with our industry partners, program PAC's, and communities are also a high priority.

In closing, we would like to congratulate the faculty and staff for this positive team effort. The group has already undertaken a number of changes to address the goals of the action plan. I look forward to working closely with them as we move forward.

Sincerely,

Brian Haugen
Dean, Faculty of Trades and Technology

Cc: Dr. Sal Ferreras, Provost and Vice President Academic
Daryl Massey, Chair, CADD Technologies
David Riel, Associate Dean Faculty of Trades and Technology
Amy Ditchburn, Divisional Business Manager, Faculty of Trades and Technology