# #9

## COMPLETE

Collector: Email Invitation 2 (Email)

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Time Spent: 00:21:51
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# Page 1: I. Program Overview and Update

## Q1

1. Department(s) Reviewed:

CADD

## Q2

2. Lead Author:

Cyrus Saghafi

## Q3

3. Collaborator(s) - List any person that participated in the preparation of this report:

None

## Q4

4. Dean/Manager:

George Dowden

Q5 Date your program met with 10/25/2022

5. Initial Collaboration Date with Dean:

your dean to discuss your vision, goals, and resource

needs/requests: MM/DD/YYYY

Page 2: II. Program Reflection and Description

6. Provide your program's mission statement. If your program does not have a mission statement, what is your timeline for creating a mission statement?

The CADD Technology is a Career Education program. Its mission is to prepare students for 21-Century workforce environment. We also provide equal opportunity for all students to continue their education to attain advanced degree. We strive that every single course offered in this program to have strong foundation and skills of CADD Technology. Students' learning outcomes will include critical thinking, design and problem solving of mechanical systems, analytical evaluation of final projects. Student projects require teamwork effort to design, execute analytical optimization and build prototypes. To achieve this goal successfully, we have to create an equitable teaching environment, which attracts diversified groups of students, including special populations, minorities, veterans and others.

Q7 Yes

7. Is the program description in the current college catalog up to date and accurate?

## Q8

8. Describe how your program advances the College's new vision of equity, excellence, and social justice through education? How does the program reflect the College's mission and values?

We provide equal opportunity and equitable teaching environment for everyone, that attracts diversified groups of students, including special populations, minorities, veterans and others.

Page 3: III. Course Curriculum, Assessment and Student Success

## Q9

9. Access the Five Year Curriculum Review Cycle (requires GCCCD login). Have all of your active course outlines been reviewed within the last five years?

No, please explain::

Our department plans to review the entire course outlines by end of spring semester 2023.

#### Q10

- 10. Please list any planned changes from the current semester forward for curriculum (courses, degrees, and/or certificates) and the rationale for those changes (e.g., labor market data, advisory committee recommendations, transfer institution changes, industry trends, statewide transfer model curriculum).
- 1- Introduce "Fusion 360", 3D Solid modeling software, as part of course outline of CADD 129. This software replaces the current software "CREO Parametric". This decision was made based on a recommendation from our Manufacturing Industry.
- 2- The necessary changes will be made after the December Advisory Committee meeting, based on recommendations of the Committee.

11. How is your program meeting the needs of students, and/or articulation with four-year institutions?

CADD 125 / ENGR. 125 is now articulated with ME 190 from SDSU – Department of Mechanical Engineering. The Department of CADD Technology continuously observe the changes in manufacturing, design & drafting, and other relevant industries and evolve itself accordingly. As a result, we are offering the most demanding software in the Manufacturing and Building Design Industries.

## Q12

12. Please upload the most recent version of your program's course SLO assessment plan. Click here for Assessment Plan Template.

cadd%20slo.docx (14.6KB)

## Q13

13. Please provide a high-level summary and your program's interpretation of your SLO findings over the past year.

The interpretation of the SLO finding in SP 22 were above acceptable level, since above 75% of the students demonstrated knowledge based on SLO.

#### Q14

14. Discuss what changes, if any, were made as a result of your SLO findings. Include any student learning-related successes and/or challenges SLO results have revealed for your department.

The course SLOs assessments are directly linked to final projects, midterm exams or/and final exams. Hence, the final aggregate of the student score indicates the performance of student in each course SLOs. Then, alarming poor results of students in that SLOs lead to a thorough investigation and it may bring some corrections as well.

Page 4: IV. Degree and Certificate Programs

Q15 Yes

15. Does your program offer any degree/certificate programs?

Page 5: IV. Degree and Certificate Programs

Q16 Respondent skipped this question

16. For each degree and certificate, indicate how many awards were conferred in the past 5-years. Please comment on any trends and provide context to explain any increases or decreases.

17. Please indicate when each degree and certificate was last reviewed and updated (semester), if this information is available (e.g., via internal program records or Curriculum Committee minutes). If you are unable to locate this information, please state that.

Unable

## Q18

18. Can students complete the degree/certificate requirements within a two-year period?\*\*Requirement of Title 5, California Code of Regulations and Accreditation Standard II.A.

#### No, please explain::

Sometimes, due to low enrollments classes are cancelled and consequently, there are delays in receiving the degree/certificates.

## Q19

19. Have you updated your program learning outcomes (PLOs) since 2020?

No, please explain the plan to revise PLO, including which PLOs will be changed and when the changes will occur:: The investigation will be made in spring 2023 and the changes will be made, if it's necessary.

#### Q20

20. Does your program share some PLOs across its Academic and Career Pathway (ACP)?

No

# Q21

21. How are you currently assessing your PLOs? If you are not currently assessing PLOs, what is your plan to assess PLOs in the future?

The course PLOs assessment are directly linked to final projects, midterm exams or/and final exams of Capstone courses (CADD 125, CADD129, CADD133). Hence, the aggregate of the student score indicates the PLO assessment for each student in the program.

## Q22

22. How are your PLO assessments informing improvements/changes to your program?

If the assessment of the students meets the standard guidelines (75% or above), the results are acceptable. Otherwise, the Department makes a thorough investigation to find a suitable remedy.

Page 6: IV. Degree and Certificate Programs continued

23. Looking at the past 4-5 years of enrollment in your program, what trends do you notice? Has enrollment increased or decreased, and what factors may be contributing to this?

increased or decreased, and what factors may be contributing to this?

Since we were in an extra-ordinary pandemic condition, it is hard to assess any consistent trend in our enrollment, apart from this semester that we offered HyFlex classes and enrollment was very high.

#### **Q24**

24. What is your department's overall course success rate? How has it changed over the past 4-5 years? Please note any trends and context for the data.

Because of the unusual circumstances of the pandemic, it's hard to assess any substantial changes.

## **Q25**

25. Please review the college-wide and program data sets, which have identified equity gaps based on the following criteria: 3% n=10 students/enrollments. Which groups are experiencing equity gaps in your program for success rate and/or retention rate? Please discuss all equity gaps identified in the data.

Equity gap in our program for the success rate -

The minorities (Native-American, African American and Asian) are enjoying higher success rates. Only students belong to the category of two or more races are lagging behind the others.

The success rates among the students across the gender group are quiet even at high rate.. Comparing the course retention and success rates of students enrolled in our courses to the college overall, we could conclude that there are no significant differences between them.

#### **Q26**

26. What department/discipline (or institutional) factors may be contributing to these lower rates of success for these groups of students?

Our investigation indicates that there is no low rates of success in any group of students. Hence, we could not find any specific factor to make any changes. In addition, we believe that having bilingual tutor can improve the student's success rate.

#### **Q27**

27. What action will the department or discipline take to address these equity gaps over the next four years? If equity gaps have been reduced or eliminated, please share what the program did to achieve this. If equity gaps still exist, consider the specific steps your department will take to address equity gaps.

We are certain that by offering courses in the HyFlex format it would attract more students and have a positive effect on enrollment, definitely on retention and consequently on success rate. Therefore, we are planning to transform all courses of CADD Technology program gradually into HyFlex format by Fall 2023.

28. Discuss your program's plans for diversifying department faculty in alignment with the GCCCD Board Resolution 20-015. For assistance with this, please contact Cuyamaca's EEO site lead, Karen Marrujo at karen.marrujo@gcccd.edu.

Our Department strives to create the most equitable environment to attract the qualified instructors regardless of their ethnicity, race or gender.

## **Q29**

29. What other qualitative or quantitative data, if any, is the program using to inform its planning for this comprehensive program review? Please reference additional internal or external data, such as retention and enrollment, student survey results, focus groups, student throughput, or other data, if there are any notable trends.

We commit ourselves to bring more diversity into our department by targeting the minorities in our promotion plan and advertisements.

## Q30

30. What did your program learn from the transition to remote teaching over the past few years? How can this be used to improve the student experience in the future?

We learned from observation during the previous semesters that the HyFlex is going to be future of teaching strategy and class. That is the main reason that we are transforming our courses into HyFlex format.

## Page 7: IV. Degree and Certificate Programs continued

Q31 No

31. Does your program offer courses via distance education, excluding emergency remote teaching 2020-21 (classes that would have been taught in person, if not for the pandemic)?

#### Page 8: IV. Degree and Certificates Programs continued

#### Q32 Respondent skipped this question

32. If there are differences in success rates for distance education (online) versus in-person classes, what will the program do to address these disparities? If there are no differences, what did the program do to achieve that?

## Q33 Respondent skipped this question

33. What mechanisms are in place to ensure regular effective contact (Guided to Best Practices in Online Teaching) within online courses across the discipline or department?

#### Respondent skipped this question

34. What innovative tools and strategies are you using in your online courses to engage students and support student success?

Page 9: IV. Degree and Certificate Programs continued

Q35 Yes

35. Is your program a career education program (e.g., does it prepare student to directly enter the workforce)?

Page 10: IV. Degree and Certificate Programs continued

#### Q36

36. Please share your observations about the employment rate for your program over the past several years.

Based on latest SDICC – CTE Report on Manufacturing and Advanced Manufacturing & Advanced Technology, 62% of student in this field who graduated from San Diego-Imperial community colleges were employed after completing their college education. Mechanical Drafters receive at entry level \$23, median \$28, experienced \$36.

## **Q37**

37. What is the institution-set standard for your program's employment rate? The institution set standard is what you would consider the lowest acceptable employment rate for your program (or "floor").

Our students are trained to meet the national standard set by American Society for Mechanical Engineering (ASME). This is the highest engineering standard across the USA.

#### Q38

38. What would you like your program's employment rate to be, ideally (stretch goal)?

The employment rate for the CADD program is very high and based on the SDICC report – Most of the employers have difficulty finding qualified candidates for mechanical engineers and drafters.

Page 11: IV. Degree and Certificate Programs continued

#### **Q39**

39. What is your program doing to prepare students for successful transition (e.g., transfer and career readiness)? Please include information on how your program is helping students explore careers in your program area.

We make sure that all software used in the program is based on recommendation of our advisory committee. The application knowledge of the software will make students to be competitive in the job market. In addition, having our classes articulated with the State Universities, such as SDSU, provides our students the opportunity to transfer the classes they accomplish in our College.

40. What do the latest labor market data reveal about the careers (including those for transfer students) for which your program prepares students? Consider what career information you would share with students on a career or transfer pathway in your area. Labor market data may be sourced from the California Employment Development Department. You may also contact the Institutional Effectiveness, Success, and Equity Office to access additional labor market information related to your program.

California's job gains over the course of the April 2020-July 2022 recovery were well distributed across industry sectors. Among them, Manufacturing has added 105,600 jobs (8.8% of total job market)

#### Q41

OPTIONAL - If your program has labor market data to include in your program review, please use the upload button to attach the file.

Occupation\_Overview\_2\_Architecture\_and\_Engineering\_Occupations\_in\_San\_Diego\_Chula\_Vista\_Carlsbad\_CA\_3810.pdf (537.3KB)

Page 12: IV. Degree and Certificate Programs continued

## Q42

41. Please describe your program's strengths.

Our program's strengths are the content and objectives of our program and teaching strategy, which is the combination of lectures and hands-on practices.

#### Q43

42. Please describe your program's challenges.

The most challenging issue we face on daily basis is the language barrier. A bi-lingual assistant or embedded tutor could have a positive impact and help student understand the concept of lecture. Grouping students in in-class activities could create a situation, in which students interact with one another and bring students from different ethnicities and languages together. That would help students earn from one another.

#### Q44

43. Please describe external influences that affect your program (both positively and negatively).

The rapid changes in industry technology does have a great impact on our program. In order to keep up with their pace we have to put a lot of effort and spend more time and energy than I used to do in the past.

#### Q45

44. Given these factors, what opportunities exist for the service area to advance the College's goals in the next 4 years?

Offering the entire program in HyFlex would increase the student's retention rate as well as their success rate.

## Page 13: V. Previous Goals

#### **Q46**

#### Previous Goal 1:

Prepare students for the challenging workforce in CADD Technology fields of Manufacturing, Advanced Manufacturing, and Building Design Industries.

All students, regardless of their race, ethnicity, age or gender are prepared for the challenging workforce requirement through receiving the equitable knowledge that are demanded by Manufacturing and Building Design Industries.

Q47	In Progress

**Goal Status** 

Page 14: V. Previous Goals continued

Q48 Respondent skipped this question

Please describe the results or explain the reason for the deletion/completion of the goal:

Q49 Respondent skipped this question

Would you like to submit another previous goal?

#### Page 15: V. Previous Goals continued

# Q50 Increase completion and eliminate equity gaps

Which College Strategic Goal does this department goal most directly support? (Check only one)

Q51 Respondent skipped this question

Action Steps for the Next Year:If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).

Q52 New classified position,
What resources, if any, are needed to achieve this goal in Technology,

the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline.

Supplies, equipment, and/or furniture

(graduating with a degree/certificate, or transferring)

mod detional comprehensive Program Neview Tail 2022		
Q53	Yes	
Would you like to submit another previous goal?		
Page 16: V. Previous Goals continued		
Q54		
1. Previous Goal 2:		
Increase student success in class activities and achieving certification	ates/diplomas.	
Department helps students, regardless of their ethnic background of	or age and gender and sex orientation, achieve their academic goals.	
Q55	In Progress	
3. Goal Status		
Page 17: V. Previous Goals continued		
Q56	Respondent skipped this question	
Please describe the results or explain the reason for the deletion/completion of the goal:		
Q57	Respondent skipped this question	
Would you like to submit another previous goal?		
Page 18: V. Previous Goals continued		
Q58	Increase completion and eliminate equity gaps	
Which College Strategic Goal does this department goal most directly support? (Check only one)	(graduating with a degree/certificate, or transferring)	
Q59	Respondent skipped this question	
Action Steps for the Next Year:If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).		
Q60	New classified position,	
What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to	Technology,	
request forms are included below. All resource requests are due on the program review deadline.	Supplies, equipment, and/or furniture	

are due on the program review deadline.

Q61	Yes	
Would you like to submit another previous goal?		
Page 19: V. Previous Goals continued		
Q62		
1. Previous Goal 3:		
Maintain and enhance teaching quality in order to provide instructio	nal guidance at an equitable level to all students.	
Our Department encourage instructors to participate in conferences skills, in order to teach our students with the latest technology avai		
Q63	In Progress	
3. Goal Status		
Page 20: V. Previous Goals continued		
Q64	Respondent skipped this question	
Please describe the results or explain the reason for the deletion/completion of the goal:		
Q65	Respondent skipped this question	
Would you like to submit another previous goal?		
Page 21: V. Previous Goals continued		
Q66	Eliminate equity gaps in course success (passing grade	
Which College Strategic Goal does this department goal most directly support? (Check only one)	in class)	
Q67	Respondent skipped this question	
Action Steps for the Next Year:If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).		

Q68 What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline.	Other, please specify:: Travel funds requested to participate in professional conferences/workshops/seminars
Q69	No
Would you like to submit another previous goal?	
Page 22: V. Previous Goals continued	
Q70	Respondent skipped this question
1. Previous Goal 4:	
Q71	Respondent skipped this question
Goal Status	
Page 23: V. Previous Goals continued	
Q72	Respondent skipped this question
Please describe the results or explain the reason for the deletion/completion of the goal:	
Page 24: V. Previous Goals continued	
Q73	Respondent skipped this question
Which College Strategic Goal does this department goal most directly support? (Check only one)	
Q74	Respondent skipped this question
Action Steps for the Next Year:If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).	
Q75	Respondent skipped this question
What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline.	

## Page 25: VI. New 4-Year Goals

## Q76

#### New Goal 1:

Enhance students' skills in CADD Technology and direct them towards Advanced Manufacturing.

Create opportunity for students to gain advanced skills in manufacturing and CADD Technology, regardless of their race, ethnicity or ETC.

#### Q77

Which College Strategic Goal does this department goal most directly address? (Check only one)

Increase completion and eliminate equity gaps (graduating with a degree/certificate, or transferring)

#### **Q78**

Please describe how this goal advances the college strategic goal(s) identified above:

By focusing on equity approaches, equity gaps can shrink.

#### Q79

Please indicate how this goal was informed by SLO assessment results, PLO assessment results, student achievement data, or other data:

The SLOs assessments are based on results of the students' performance in final projects.

## **Q80**

Action Steps for this Year: If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).

- I) Prepare our Labs with advanced manufacturing equipment.
- II) Hiring a technician specialized in advanced manufacturing machinery.

#### Q81

What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline. New classified position,

Technology,

Supplies, equipment, and/or furniture

#### 082

How will this goal be evaluated?

The student's ability of implementing the new technology in manufacturing and CADD Technology will be evaluated through group and final projects.

Q83 Would you like to propose another new, 4-year goal?	No
Page 26: VI. 4-Year Goals continued <b>Q84</b> Goal 2:	Respondent skipped this question
Q85 Which College Strategic Goal does this department goal most directly support? (Check only one)	Respondent skipped this question
Q86 Please describe how this goal advances the college strategic goal(s) identified above:	Respondent skipped this question
Q87  Please indicate how this goal was informed by SLO assessment results, PLO assessment results, student achievement data, or other data:	Respondent skipped this question
Q88  Action Steps for the Next Year: If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).	Respondent skipped this question
Q89 What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline.	Respondent skipped this question
Q90 How will this goal be evaluated?	Respondent skipped this question
<b>Q91</b> Would you like to propose another new, 4-year goal?	Respondent skipped this question

Page 27: VI. 4-Year Goals continued

Q92 Respondent skipped this question Goal 3: Q93 Respondent skipped this question Which College Strategic Goal does this department goal most directly support? (Check only one) Q94 Respondent skipped this question Please describe how this goal advances the college strategic goal(s) identified above: Q95 Respondent skipped this question Please indicate how this goal was informed by SLO assessment results, PLO assessment results, student achievement data, or other data: Q96 Respondent skipped this question Action Steps for the Next Year: If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers). **Q97** Respondent skipped this question What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline. Q98 Respondent skipped this question How will this goal be evaluated? **O99** Respondent skipped this question Would you like to propose another new, 4-year goal? Page 28: VI. 4-Year Goals continued Q100 Respondent skipped this question Goal 4:

Respondent skipped this question

Which College Strategic Goal does this department goal most directly support? (Check only one)

Q102

Respondent skipped this question

Please describe how this goal advances the college strategic goal(s) identified above:

Q103

Respondent skipped this question

Please indicate how this goal was informed by SLO assessment results, PLO assessment results, student achievement data, or other qualitative or quantitative data (from any source):

Q104

Respondent skipped this question

Action Steps for the Next Year:If you are requesting resources in order to achieve this goal, please list them below as action steps and specify the type of request (e.g., submit technology request for new laptop computers).

Q105

Respondent skipped this question

What resources, if any, are needed to achieve this goal in the next 4 years? Please select all that apply. Links to request forms are included below. All resource requests are due on the program review deadline.

Q106

Respondent skipped this question

How will this goal be evaluated?

Page 30: Final Check

Q107

I am ready to submit my program review

Are you ready to submit your program review? If you would like to go back and review a section, select a section a click "Next."