



Program Review and Planning

OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review is about documenting the plans you have for improving student success in your program and sharing that information with the community. Through the review of and reflection on key program elements, program review and planning identifies program strengths as well as strategies necessary to improve the academic discipline, program, or service to support student success. With our new Guided Pathways plan, this review becomes even more crucial for the success of our students and college.

[We are using the Strengths, Opportunities, Aspirations, Results \(SOAR\) strategic planning technique to help us focus on our current strengths and opportunities, create a vision of future aspirations, and consider the results of this approach.](#)

BASIC PROGRAM INFORMATION

Academic Year
2018-2019

Are you completing a comprehensive or annual PRP?
Annual

Department Name
Design and Manufacturing Technologies

Discipline Name
Drafting Technology (DT)

Department Chair Name
Dennis Lutz

Division Name
Career, Technical and Extended Education

Website address for your discipline
<https://www2.palomar.edu/pages/drafting/>

Discipline Mission statement

In direct alignment with Palomar College's mission statement, the Drafting Department is committed and focused on being the leading provider of education to influence positive change and excellence in the technical, mechanical, electrical, and industrial drafting disciplines. We celebrate diversity in cultures, beliefs, abilities and needs. We foster a culture of integrity, professional practices, ethical behavior, environmental responsibility and global sustainability. Our instructors will educate, nurture, and inspire our creative-minded drafting and design students immersing them in a culture of professional practices designed to evoke passion and inspiration in the pursuit of their professional goals. Our curriculum is inclusive of individuals pursuing educational enrichment, career and technical training and re-training, certificates of achievement, associate degrees, and transfer-readiness to public schools, private schools and universities. We equip students with the skills and confidence necessary to become engaging leaders of change in society while living respectfully and responsibly in a global society.

[\(click here for information on how to create a mission statement\)](#)

Does your discipline have at least one degree or certificate associated with it?

Are any of your programs vocational (CTE/CE)?
Yes

Yes

List all degrees and certificates offered within this discipline.

Computer Assisted Drafting - Certificate of Achievement and A.S. Degree
Drafting Technology, Technical - Certificate of Achievement and A.S. Degree
Electro-Mechanical Drafting & Design - Certificate of Achievement and A.S. Degree
Drafting Technology, Multimedia - Certificate of Achievement and A.S. Degree

Please list the names and positions of everyone who helped to complete this document.

Anita R. Talone, Drafting Full-Time Associate Professor
Art Gerwig, Drafting Full-Time Professor

Full-time faculty (FTEF)

1.40

Part-time faculty (FTEF)

1.80

Classified & other staff positions that support this discipline

Yesenia Gamble Zermeno, Shared Division ADA
1/7 of 100% of 12 months

Additional hourly staff that support this discipline and/or department

None

PROGRAM INFORMATION

PROGRAM OUTCOMES

Begin this section by reviewing the Program Review reports for courses and programs in TracDat. All active course and program outcomes should be systematically assessed over a 3-year cycle.

- **Program** = Leads to a degree or certificate
- **Discipline** = A group of courses within a discipline

*Programs will be able to complete program completion and outcome questions.

How well do your program's learning outcomes communicate the scope and depth of the degree/certificate offered and align with employer and transfer expectations?

We examined our Program Learning Outcomes for three of our Certificate and AS degrees:

COMPUTER ASSISTED DRAFTING
DRAFTING TECHNOLOGY-TECHNICAL
ELECTRO-MECHANICAL DRAFTING AND DESIGN

All three of these programs have two learning components, the first being modeling, drafting, and documentation. The second component is software proficiency. Not only are the students learning a new complex software, they also must learn the techniques of how to visualize, design, create and get their thoughts on paper according to acceptable drafting standards for the industry. Our program outcomes address these two components. We could dig deeper and further categorize these outcomes by breaking them down into smaller modules. Additionally, we now have new software programs that we are teaching that are not listed; however, they are captured in the "not limited to" clause. One thing I see missing is the entire printing aspect from the outcomes which would be printed on paper, digitized, and/or 3D printed into physical models. We should update our program outcomes that speak to industry needs when it comes to output of designs.

Additionally, our industry advisors are so valuable in guiding us as to what is needed and expected from our students to enter the workforce. Over the past year we have had three meetings with our advisors to rename our certificates, and to add and/or delete classes in the certificates. They have talked to us about the classes that are not at the appropriate difficulty level required for industry. Specifically, our math requirements are not up to par with industry needs. They also have told us which classes they see as unnecessary or obsolete. Our advisors want us to rename our certificates to reflect the exact (or close to it) wording that an employer would put into a search field for a desired employee. They told us our certificate names are confusing to them. They are not sure what the student is capable of doing by reading the name of the certificate, or where our students fit into their job descriptions. We have talked about certificates having fewer classes, and asked if a student receiving this certificate would have what is necessary to be hired. We are trying to make our programs more robust and more quickly attainable, without making them inconsequential.

Our classes are co-listed with the Engineering Department. Our software, specifically AutoCAD, Creo and SOLIDWORKS, is required in almost every Engineering field. We have every type of engineering student in our classes, i.e. Mechanical, Electrical, Chemical, Geological, Civil, Aerospace, Biological, Nuclear, Petroleum, and Industrial/Manufacturing etc. These students are transfer students; however, they are transferring under the Engineering Department. Drafting students that complete our program with an AS or Certificate usually do not transfer. If they did, they would most likely transfer as an Industrial Technology Design or Manufacturing student. We have very few of these students. Additionally, a vast majority of our students end up earning all three of our Certificates. We encourage them to get all three certificates because, as I tell them every semester, "You never know where you are going to land." The meaning of this statement is, sometimes you think you have it all figured out, then a fabulous opportunity presents itself, and you don't have the required education. If they earn all three certificates, they will be better prepared to work in any drafting field. The only drafting field we do not currently teach is Civil 3D. One of our advisors is a Civil Engineer. We have several students that have been hired in this field and they have to teach themselves, or take classes outside Palomar to learn this software. To offer Civil 3D software and civil engineering drafting classes would need to creating another certificate and hire additional instructors who know this field, and how to teach it. If demand becomes greater, we will need to consider this.

Describe your program's plan for assessing program learning outcomes.

We assess our program learning outcomes in several ways. Each of our classes has a lecture followed by a lab component. Each of our classes are approximately a three-hour block. We do not have multiple labs that go along with one lecture. We have the same students for both lecture and lab during that three-hour block. Most of our lectures are interactive. We are delivering information through lecture as the students are sitting in front of their computers. Some of our instructors use the podium computer and generate the "live" lesson by using the podium computer. Some instructors have their students do exactly what they are doing as they are doing it on their computers. Other instructors use the whiteboard to demonstrate each lesson and have the students "try out" each of the commands/topics/ideas as they are being presented. Questions are answered exactly at the time they come up during the lecture. It is very easy to see if students are understanding as the lesson progresses. It is better for the students to understand each concept before we proceed with the lecture. We can assess ourselves and our teaching methods as well as assess the student's comprehension and success with our methods of instruction. When using drafting software, no two programs work, or look the same. Each software has its own purpose in the drafting field and no two softwares are alike. Therefore, students need to learn a new interface and new sequential steps to make something happen. In addition to learning software, students are learning the concepts of drafting. Many of our students have never seen our software in addition to never having taken a drafting class. They need to learn an entire new vocabulary in our classes to speak and understand drafting. It takes several semesters to even begin to be competent at drafting and the software. During the lecture we are introducing both these worlds to the students. We are making sure they understand how the software works, as well as how it applies to what they are drawing. It is easy to see the comprehension level during this time and assess the students. If they do not understand, they cannot get the software to work or accomplish the instructions we have given them. They actually come to a complete stop until we can help them.

The next way we evaluate our program outcomes is during lab. During each lab the students must complete multiple drawings that encompass that week's lessons and contain the knowledge they must apply from the previous week's lessons. Our classes are building blocks. Nothing is an independent module unto itself. If you miss a class, you cannot move forward without learning the prior information. We are at each student's computers with them during the labs. We are circulating through the rows of computers non-stop making sure everyone understands, is moving forward, and is able to finish their drawings. If we find the majority of students during lab time unable to do a specific part of the lesson, we interrupt the class and reteach the concept.

Finally, we test students both through a multiple choice/written type midterm and final, along with a midterm and final drawing or project. This ensures that a student understands how to read, write, research, and communicate their knowledge as well as use the software to accomplish their designs/drawings. We often tell the students that what they want to build or design is only an idea in their heads until they can get it down on paper. If they can properly draw, annotate and print out their work, they will be able to take their ideas and make them reality.

Summarize the major findings of your program outcomes assessments.

As mentioned above our programs are two-pronged. This is well laid out in the outcomes; however, we need to:

Broaden the scope of the outcomes by breaking down the outcomes into sub-categories.

Go into further detail and get more specific.

Update the Certificate names, content and outcomes.

Another finding not mentioned above is that we did not see any program outcomes online for the Drafting – Multi-Media Certificate. We are not sure why. It is something we need to check on right away. Last year in our PRP we spoke of creating an 8-unit certificate in addition to, or to replace, the current Multi-Media Certificate. We do not award many of these Certificates as it is currently running. It was brought up at our Spring 2019 Division Meeting that we were told previously we could have 8 unit certificates, but it takes 9 units to receive money for completions. Our thoughts are we should now consider making this a 9-unit certificate so the school receives money for the completion. This certificate would be attainable in two semesters due to scheduling.

Depending on the degree or transfer goals of our students, they have the choice of three different GE pathways:

- [Associate Degree GE Requirements](#)
- [CSU GE Requirements](#)
- [IGETC Requirements](#)

Palomar College has identified a set of General Education/Institutional Learning Outcomes, which represent the overall set of abilities and qualities a student graduating from Palomar should possess. [Click here for a link to Palomar's GE/ILOs.](#)

PROGRAM COMPLETIONS

Student success is at the core of what we do in assisting students in achieving their goals.

The Chancellor's Office Vision for Success stresses the importance of Program Completion as a major goal for our students. In addition, transfer and career readiness are key components of Palomar College's mission statement. This year, our funding formula has also changed reflecting this emphasis, providing additional funding as a function of the number of completions.

In this section we will identify a program standard and a stretch goal (what you would like to move toward) for program completions.

The standards represent the lowest number of program completions deemed acceptable by the College. In other words, if you were to notice a drop below the set standard, you would seek further information to examine why this occurred and strategies to increase completions.

In this section we will identify a program standard and a stretch goal (what you would like to move toward) for programs.

List the number of completions for each degree/certificate for the previous year.

AS Degree – 16

CERTIFICATES - 22 (Certificates - CAL - 7 AND Certificates - CAT - 15)

TOTAL PROGRAM COMPLETIONS – 38

Have your program completions Increased, decreased, or stayed the same over the last 5 years?

Increased

What factors have influenced your completion trends?

For over a year now we have been told that our funding structure will be changing to a performance based structure. This past year, we kept on our students to apply for their degrees and certificates. We encouraged them to take a look at all the certificates we offer, and see if they wanted to complete several. Our certificates share core classes. In most cases it would only take two to four additional classes to get another certificate. There was a larger group of students this past year finishing up their 2nd or 3rd year of the program. Most of them took our advice and received multiple certificates. Some of them also received AS degrees. We also talk to all of our students about the importance of having the certificate or degree for employment. Our Advisory Committee continually tells us about how big the competition is out there to get a job these days. When you look at job postings, companies want educated prospects even in the Trades. We also emphasize to our students that getting the AS degree will look better for them on their resumes along with the individual certificates they have earned. We explain to them that an AS degree will start them at a higher pay scale than a certificate in a lot of companies. Showing competence in several fields of drafting is very important to employers. If they have multiple certificates along with a broad spectrum portfolio, they will be ahead of the competition.

Another thing we have been doing is asking past graduates that are working in the field come and speak to our students. They talk about the entire process of looking for a job, interviewing, and getting the job. We have them talk about how important it was to have received their certificate(s) and/ or AS degree. They talk about the relevancy of our classes. They talk about what they are actually are doing at work. We have the certificates and degree requirements posted in our classrooms and labs. Additionally, we have copies of the degree/certificates printed out for the students to take with them. We let them know we are there to help them with all their questions.

Of interest are the following:

Enrollment Trends:

Year 2017-18 Students 384 (-8)

Year 2016-17 Students 392 (-58)

Year 2015-16 Students 450 (-8)

Fill Rate:

Year 2017-18 109%

Year 2016-17 99%

Year 2015-16 102%

2017-18 we experienced an enrollment drop of 2%, and our fill rate was 109%. Overall school fill rate was 85%

2016-17 we experienced an enrollment drop of 13%, and our fill rate was 99%. Overall school fill rate was 86%

2015-16 we experienced an enrollment drop of 0%, and our fill rate was 102%. Overall school fill rate was 88%

No matter what the enrollment is doing, our classes fill and we retain our students.

The Chancellor's Office Vision for Success stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

ACCJC also requires that colleges establish institutional and program level standards in the area of success rates. These standards represent the lowest success rate deemed acceptable by the College. In other words, if you were to notice a drop below the rate, you would seek further information to examine why the drop occurred and strategies to address the rate.

[Click on this link to review the course success rates \(A, B, C, or Credit\) for your discipline.](#)

In this section we will identify a course success rate standards and a stretch goal (what you would like to move toward) for programs.

Course Success Rates by gender, age, ethnicity, special population, location, and modality (You can access the Student Equity Plan on the SSEC website <https://www2.palomar.edu/pages/ssec/>)

COURSE INFORMATION

COURSE SUCCESS AND RETENTION

What is your program's standard for Discipline COURSE Success Rate?

70.0%

Why did you choose this standard?

We were told our Success Rate standard is 70% by our Department Chair. We spoke to all our Adjunct instructors about the success rate in their classes. Most everyone felt the majority of their students could achieve 80% or higher success rate. We only had one Adjunct instructor tell us that we were reaching too high, and it was not attainable. We need everyone on board, both full-time faculty and part-time faculty, in order to attain all our division goals.

What is your Stretch goal for COURSE success rates?

80.0%

How did you decide upon the goal?

After looking at our Success Rates for the past three years, this goal is absolutely attainable. We are on target to accomplish it this year.

COURSE OUTCOMES

How have you improved course-level assessment methods since the last PRP?

Our course-level assessment methods have not changed since the last PRP.

Summarize the major findings of your course outcomes assessments.

Our success rate over the past three years is consistently between 82% and 87% for both day and evening students.

Our retention rate over the past three years is consistently between 92% and 95% for both day and evening students.

The overall school success rate over the past three years is consistently between 72% and 73% for both day and evening students.

The overall school retention rate over the past three years is consistently between 91% and 93% for both day and evening students.

We are above the overall school success rates for both success and retention.

When examining the age demographics over the past three years, we found the following to be enlightening:

The 20-24 and 24-49 age brackets consistently have the highest enrollments; the under 19 being the second largest; and finally the 50+ being our smallest contingency.

Our success rate for all age brackets over the past three years diminished across the board:

Under 19 ranged from 92-95%

20-24 ranged from 80-84%

25-49 ranged from 78-83%

50+ ranged from 71-92% quite a big variance

Our retention rate for all age brackets over the past three years was interesting:

Under 19 ranged from 98-99%

20-24 ranged from 94-96%

25-49 ranged from 89-95%

50+ ranged from 89-97%

The older the population became; the less retention was attained.

The overall school success rate for all age brackets for the past three years was in the low 70 percentile with only one bracket showing higher success - the 50+ students. We are for the most part significantly above the school average.

Under 19 ranged from 92-95%

20-24 ranged from 80-84%

25-49 ranged from 78-83%

50+ ranged from 71-92% quite a big variance

The overall retention rate of the school in all brackets except for the 50+ was 90-93%. The 50+ bracket was slightly lower at 89-91%. Once again, we are significantly above the school average.

When comparing the overall school success and retention rates over the past three years in regard to race, the success rate over all races ranged from 59-75%. The retention rate ranged from 87-94%.

When comparing our success and retention rates over the past three years in regard to race, the success rate and retention rate was <10 for American Indian or Pacific Islanders. Among all other races, success rate was 73 to 100% and retention rate was 86-100%.

Our largest enrollment comes from Hispanic and White students.

We have no Foster Youth in our program.

When comparing the overall school success and retention rates over the past three years in regard to gender, the success rate for males ranged from 70-71%. The retention rate for males was 92%.

When comparing the overall school success and retention rates over the past three years in regard to gender, the success rate for females ranged from 72-73%. The retention rate for females ranged from 91-92%. The numbers were pretty close for males and females for the overall success rate and retention rate.

When comparing our success and retention rates over the past three years in regard to gender, the success rate for males ranged from 80-84%. The retention rate for males was 93-95%.

When comparing our success and retention rates over the past three years in regard to gender, the success rate for females ranged from 85-90%. The retention rate for females ranged from 94-98%. Once again our students were well above the overall school success rate regarding gender; however the

retention rates were comparable.

When comparing the overall school success and retention rates over the past three years in regard to Veterans, the success rate for Veterans was 71-72%. The retention rate was 92%.

When comparing our success and retention rates over the past three years in regard to Veterans, the retention rate for

Veterans was 72-88%, quite a wide range. The retention rate was 96-100% higher than the school average.

This section is intentionally blank for annual PRPs. Please click "Next" to continue.

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Program Goals

In the previous sections, you identified opportunities for improvement. Using these opportunities, develop 3-year [SMART goals](#) for your department. Goals should be Specific, Measurable, Attainable, Relevant, Time-Specific. Ensure your goals align with the mission of your department and/or [the College's strategic plan](#).

Please list all discipline goals for this three-year planning cycle. [Click here for previous PRPs and goal information.](#)

Goals

Goal 1

Brief Description

Rename and Redesign all Certificates and AS Degrees

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

We have already had several meetings with our Advisory Committee regarding our certificate name changes and course content. Now it is time to reach out to our Industry partners such as Autodesk, SOLIDWORKS and Altium to get their input on what is happening/trending with regard to educational software and its applications for industry. We need to see what SDSU, Cal Poly SLO etc. are offering and what transfers, as well as see what Mira Costa College, Mesa College, etc. are offering.

Outcome(s) expected (qualitative/quantitative)

Robust, streamlined certificates and AS degrees achievable in a shorter period of time that lead to more completions.

A clear roadmap or students to follow.

Elimination of redundant and unnecessary courses.

Elimination of classes that consistently do not fill.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is in direct alignment with Palomar College's mission statement, the Drafting Department's mission statement and Guided Pathways. All three of these aspire to inspire positive change and enhance the learning experience at Palomar. These changes will allow drafting and design students to receive the most relevant, current instruction and professional practices designed to evoke passion and

inspiration in the pursuit of their professional goals. We will equip students with the knowledge, skills and confidence necessary to succeed.

Expected Goal Completion Date

5/22/2020

Goal 2

Brief Description

Update Course Curriculum

Is this a new or existing goal?

New

How will you complete this goal?

Bring Full-Time Faculty and Adjunct Faculty that are currently working in industry together to talk about what we need to be doing in order to produce the best prepared students we can for the workforce. We need to know what is new; what is outdated/irrelevant; what to keep; and what to throw out.

Outcome(s) expected (qualitative/quantitative)

More relevant courses

Highly prepared students

Team building within the Drafting Department

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is in direct alignment with Palomar College's mission statement, the Drafting Department's mission statement and Guided Pathways. All three of these aspire to inspire positive change and enhance the learning experience at Palomar. These changes will allow drafting and design students to receive the most relevant, current instruction and professional practices designed to evoke passion and inspiration in the pursuit of their professional goals. We will equip students with the knowledge, skills and confidence necessary to succeed.

Expected Goal Completion Date

5/22/2020

Goal 3

Brief Description

Update Course SLO's and Program SLO's

Is this a new or existing goal?

New

How will you complete this goal?

Examine new curriculum created in Goal #2. Again, bring Full-Time Faculty and Adjunct Faculty and talk about what are the achievable outcomes at every level of instruction during the classes we offer. We need to get more in depth and examine what we are doing.

Outcome(s) expected (qualitative/quantitative)

Students will understand by the outcomes exactly what they are going to learn and/or achieve for every course and certificate program. They will have an idea of what the courses encompass and what will be

expected of them. They will be able to discern if this is something they want to pursue.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is in direct alignment with Palomar College's mission statement, the Drafting Department's mission statement and Guided Pathways. All three of these aspire to inspire positive change and enhance the learning experience at Palomar. These changes will allow drafting and design students to receive the most relevant, current instruction and professional practices designed to evoke passion and inspiration in the pursuit of their professional goals. We will equip students with the knowledge, skills and confidence necessary to succeed.

Expected Goal Completion Date

5/22/2020

Goal 4

Brief Description

Find classroom/lab space for evening classes.

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

Meet with Dean, VP and Facilities to find space.
Find out if the old Library is an option.

Outcome(s) expected (qualitative/quantitative)

More classes being offered at night will bring more student who work during the day into our Program.
More students will be able to complete certificate and degrees that they have started.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is in direct alignment with Palomar College's mission statement, the Drafting Department's mission statement and Guided Pathways. All three of these aspire to inspire positive change and enhance the learning experience at Palomar. These changes will allow drafting and design students to receive the most relevant, current instruction and professional practices designed to evoke passion and inspiration in the pursuit of their professional goals. We will equip students with the knowledge, skills and confidence necessary to succeed.

Expected Goal Completion Date

5/22/2019

Goal 5

Brief Description

Expand the Machine Shop square footage and get an Aide to assist.

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

Budget for funds.

Interview/assess skills/test/hire

Outcome(s) expected (qualitative/quantitative)

Students will have less down-time and be more productive.

Instructor will be more at ease leaving students in the classroom to be in the machine shop.(Currently there is a glass window in-between the spaces.)

It will be a safer environment.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is in direct alignment with Palomar College's mission statement, the Drafting Department's mission statement and Guided Pathways. All three of these aspire to inspire positive change and enhance the learning experience at Palomar. These changes will allow drafting and design students to receive the most relevant, current instruction and professional practices designed to evoke passion and inspiration in the pursuit of their professional goals. We will equip students with the knowledge, skills and confidence necessary to succeed.

Expected Goal Completion Date

5/22/2020

STAFFING AND RESOURCE NEEDS

Instructions

1. Refer to [Strategic Plan](#).
2. See [Data](#).
3. See career info (In PRP)

Are you requesting additional full-time faculty?

No

Are you requesting additional Staff, CAST or AA?

No