

Entry #: 12 - Career, Technical and Extended Education**Status:** Submitted**Submitted:** 2/22/2024 1:34 PM

DRAFT

OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review and Planning is about evaluating and assessing programs and documenting plans for improving student success rates. Through review of and reflection on key program elements, Program Review and Planning identifies program strengths and strategies necessary to improve the academic discipline, program, and/or services to support student success.

The College also uses Program Review and Planning as the conduit to request resources (human, technology, facilities and funding) to further help improve and support programs.

ALL PROGRAMS WILL COMPLETE AN ANNUAL PROGRAM REVIEW FOR 2023-2024.

BASIC PROGRAM INFORMATION

Division Name

Career, Technical and Extended Education

Department Name

Design and Manufacturing Technologies

Microsoft_List_ID**Discipline Name**

Drafting Technology (DT)

Department Chair Name

Anita R. Talone

Department Chair email

atalone@palomar.edu

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

Anita R. Talone - FT Faculty

Art Gerwig - FT Faculty

Website address for your discipline<https://www.palomar.edu/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 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?

Yes

Are any of your programs TOP coded as vocational (CTE/CE)?

Yes

List all degrees and certificates offered within this discipline.

Mechanical Engineering Drafting and Design Technology, Associates Degree and Certificate of Achievement
Drafting and Design CADD/CAM Technology, Associates Degree and Certificate of Achievement
Electrical Engineering Drafting and Design, Associates Degree and Certificate of Achievement
AutoCAD Drafting and Design, Certificate of Achievement
SolidWorks Drafting and Design, Certificate of Achievement
Creo Drafting and Design, Certificate of Achievement

BASIC PROGRAM INFORMATION: FACULTY AND STAFFING RESOURCES

In this section, you will identify how many faculty and staff support your discipline's programs. This information is considered when you request permanent staff and faculty hires. It is also useful as you evaluate your program and the human resources and talent you have to support our students.

To help you answer questions in this section, you will need the links shown in red.

Enter the number of permanent or full-time faculty support your discipline (program)?

2 FT Professors - Arthur Gerwig Anita R. Talone 1- ADA – Carrie Espinosa Villanueva

For this past fall semester, what was your Full-time FTEF assigned to teach classes?

2.1

For this past fall semester, what was your Part-time FTEF assigned to teach classes? (Part-time FTEF = PT hourly and overload.)

2.3

List the classified and other permanent staff positions that support this discipline. If possible, include number of months and percentage workload.

Carrie S. Espinosa Villanueva 12 month contract - 50% for Design and Manufacturing due to sharing her with the Trade and Industry Department

List additional hourly staff that support this discipline and/or department. Include weekly hours.

Fabiola Romero
Janet Moreno

COURSE INFORMATION

In this section, you will review how students perform in the courses you offer as part of your program. The Chancellor's Office Vision for Success goals focus on eliminating equity gaps and increasing timely completions. Examining, reflecting upon, and developing strategies to improve course success rates is one way to help the college meet its Vision for Success Goals and support our students in reaching theirs.

Data are provided to help you examine differences in course success rates (C or better) across student demographic categories (e.g., gender) and course type (e.g., face-to-face, online).

After you complete your review of course success data, you are asked to confirm that you have assessed each course SLO within the past three years.

[Link: Course Data](#)

COURSE SUCCESS AND RETENTION

Have your overall course success rates increased, decreased, or stayed the same over the last 5 years?

Increased

Was this expected? Please explain.

Yes, this was expected. Our success rate for 2022-2023 was 85.5%. In 2020 when COVID hit, and we went online our success rate was 44.5%. We have nearly doubled our success rate in the past three years while still being an online program. We are on track to increase the success rate for 2023-2024.

Have your overall course retention rates increased, decreased, or stayed the same over the last 5 years?

Increased

Was this expected? Please explain.

Yes, this was expected. Our retention rate for 2022-2023 was 96%. Very impressive since our retention rate in 2020 was 73.5%. We have increased our retention rate by nearly 23% in the past three years.

Are there differences in success or retention rates in the following groups? (choose all that apply)

Age

Special Pop. (Veteran, foster youth, etc.)

Ethnicity

Age: What did you find and why do you think age differences exist? What do you need to help close the gap?

Success rate for age 20-24 was the lowest of the three age categories at 81%

Retention rate for all three age categories was similar at 100%, 97% and 94%

Looking at five years of date 2019-2023, 25-to 49 years old have the highest success and retention rates.

Retention rate for all three ethnicity categories was similar at 92%, 96% and 96%

Ethnicity: What did you find and why do you think ethnicity differences exist? What do you need to help close the gap?

Looking at five years of date 2019-2023, 25-to 49 years old have the highest success and retention rates.

The Spring 2023 success rate for Asian ethnicity was the lowest of the three categories at 77%; however combining enrollment and success rate by ethnicity for the past five years the numbers varied from 76.9% in 2023 to 100% in 2021.

The other two categories were very close at 88% Hispanic and 84% White. Looking at enrollment and retention rates for Asians over 5 years the variance was 92.3% to 100%. White and Hispanic rates ranged from 66.2% to 95.9% over five years.

Retention rate for all three ethnicity categories was similar at 92%, 96% and 96%

Looking at five years of date 2019-2023, 25-to 49 years old have the highest success and retention rates.

Retention rate by gender did not seem to vary much 94%female and 97% male.

Special Populations: What did you find and why do you think special population differences exist? What do you need to help close the gap?

Gender success rates were 91% female and 84% male.

Success rate for foster youth was 86% and retention at 96%

Success rate for veterans or non veterans was very close 87% and 85%

Retention rate for veterans was 100% and non-veterans 96%

Success rate for term load FT students was 92% and retention rate for term load FT students was 100%

Retention rate for term load PT students was 83% and retention rate for term load PT students was 94%

In this comparison, FT students did better than PT students especially regarding retention rate.

From this data, our retention rate is always higher than our success rate, which we interpret that our students are committed to finishing the class and keep learning/working to the very end. They are committed to learning.

Please share methods that your department is using to improve retention and success rates in your courses. If you are focusing on a specific group like online students or a demographic group please include that information in your answer.

We keep improving our online classes every semester. We learn more each semester we teach our classes. Every semester our department instructors discuss what is working; what changes we have made; and how we handle specific situations, etc. Our Canvas courses are updated and improved every semester. We also improve as online instructors each semester. We learn from each other and our students. This constant editing and updating has only grown our program, our courses, and our online abilities. Our students are really liking online learning and they are doing well in our classes.

COURSE STUDENT LEARNING OUTCOMES (SLOs)

Excluding courses that haven't been offered in the last three years, do you confirm that all of your courses have been assessed since August 2020 (Result Summary Date)?

Yes

Upload a copy of your SLO report from Nuventive ("Report 0. Last Result Date and Action Date for All Active Course Outcomes")



[Drafting Technology - 0. Course SLO Report_ Last Result Date and Action Date for All Active Course Outcomes \(2\).xls](#) 30.5 KB 

PROGRAM INFORMATION

In this section, you are asked to consider and evaluate your programs, including the annual number of completions, and their program learning outcomes,

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.

Link: [Program Completions](#)

Access the link above titled "Program Completions" and copy and paste five years of completion data for each of your discipline's degrees and certificates.

Degrees and Certificates Awarded

2017-2018: AA/AS Degrees 16 + Certificates of Achievement 22 = Total 38 Program Completions

2018-2019: AA/AS Degrees 16 + Certificates of Achievement 22 = Total 33 Program Completions

2019-2020: AA/AS Degrees 16 + Certificates of Achievement 22 = Total 18 Program Completions

2020-2021: AA/AS Degrees 16 + Certificates of Achievement 22 = Total 28 Program Completions

2021-2022: AA/AS Degrees 16 + Certificates of Achievement 22 = Total 40 Program Completions

PROGRAM LEARNING OUTCOMES

Do you confirm that all of your programs have been assessed since August 2020 (Result Summary Date)?

Yes

Upload a copy of your SLO report from Nuventive ("Report 2. Last result, action, and follow-up date for each active program outcome").



[Program SLO Report - Drafting and Design Technician Creo.xls](#)

26.5 KB



[Program SLO Report - Drafting and Design CADD CAM Technology.xls](#)

26.5 KB



[Program SLO Report - Drafting and Design Technician SolidWorks.xls](#)

26.5 KB



[Program SLOs - Mechanical Engineetring Draftng and Design Program Results.xls](#)

27 KB



[Program SLO Report - Electrical Mechanical Engineetring Draftng and Design.xls](#)

26.5 KB



[Program SLO Report - Drafting and Design Technician AutoCAD.xls](#)

26.5 KB



Program Review Reflection and Summary

In this section you are asked to evaluate your programs by considering their program learning outcome assessments, the annual number of completions, and any other internal or external factors that had an impact on your program.

What factors have contributed to the success of your program(s)? Describe how they have contributed.

The most relevant factor that contributes to our programs success is that our classes align directly with current industry standards. Our programs and courses are always a work in progress because the Drafting Technology industry and software(s) we teach are always evolving and changing. Each of our Drafting Technology program and course outcomes have been reviewed and/or updated for the 2023-2024 school year. These changes are currently being approved in Nuventive and META. We are very confident that our outcomes communicate the scope and depth of our courses, certificates, and degrees. Additionally, we have the latest software and computer equipment in our classroom. We are currently purchasing state of the art 3D printers for our program. Our PC's and monitors were upgraded this past year. Another key factor to our success is that we always include, and value, our adjunct instructor's input, as well as our advisory committee member's input for programs and courses since they work in industry every day. We collaboratively work toward the goal of having amazing, relevant programs and classes for our students. Full-time instructors are in the classroom and not in the field, so our adjunct instructors and advisory committee members are invaluable in keeping our programs and courses cutting edge. These dedicated members are our best source of the knowledge, skills and abilities needed by our students.

Findings:

- We doing exactly what we should be doing.
- Our program outcome assessments align with industry standards.
- Our program outcome assessments change as industry changes.
- Our program outcome assessments are attainable by the majority of our students.

What factors have presented challenges for your program(s)? Describe the impact of these challenges.

- Lack of marketing and marketing materials- If they can't find us, and don't understand what we do, students don't register for our classes. We need creative people doing this, not the instructors. Recently we had our department website updated. We are very grateful to have had that done. We had been asking for years, and finally it happened.
- Lack of someone that can answer the phone and help the students instead of just forwarding student inquiries to someone else. Students shouldn't be transferred to several different extensions until someone gets back to them. We need a person that has the time to work with students. Just forwarding an email or a call does not help anyone, not the Program and definitely not the student. We have "pushed off" the student for someone else to help them. If ADAs are helping students all day long as a receptionist does, they cannot get their own work done.
- The ADA position for Drafting Technology has been a "revolving door" situation for many years now. Work is not getting done and new ADAs don't have the experience or time to get it all done because they need to be well trained for their CTEE positions. Maybe there should be an Assistant ADA position created. Having hourly workers is great, but the ADA is having to take their time to teach the hourly workers how to do everything and the ADA's work is never ending, so things do not get done. Our ADA has as a lot more work to do than other Program's ADAs. If we train assistant ADA's, then we would have potentially excellent ADAs that could be hired without such a steep learning curve. Also, answering the phone could also be an Assistant ADA's job.
- Lack of enough counselors that truly know our CTEE Programs. Sometimes they should just pick up the phone and ask if they don't know our Programs. Very often they will map out our classes in the wrong semester, and students are just out of luck unless they happen to contact one of our instructors. We should have CTEE trained counselors, and they should let us know who they are so we can let our students know they are available to work with them.
- Not having the correct classes in the correct order in the mapper. We mapped out our Programs and Classes for each semester for both Certificates and Programs and they ignored weeks of our work and did something else. We inquired and emailed the changes, and we were ignored. Again, there is not enough personnel to handle the workload, much less counselors assigned primarily to CTE students.
- Lack of enrollment - If they don't register, we can't teach them. If students get an uninformed CTEE person on the other end of the phone, or at their counseling appointment, they don't become a CTEE enrolled student and sometimes not a Palomar student at all. Especially when they wait on hold for an eternity for someone to pick up the phone.
- The cycle of classes not filling - If the advanced classes don't fill, students cannot complete their certificates. Sometimes they have to wait an entire year to take the one class they are missing. We do not have multiple sections of our advanced classes, and they often run only in the spring semester. Students are just out of luck. It is critical to fill these advanced offerings. Dean Susan Wyche has done an amazing job at presenting these issues to the VPI and fortunately we have been able to run these advanced classes. Thank you!

CAREER AND LABOR MARKET DATA

The Chancellor's Office Vision for Success stresses the importance of increasing the percent of exiting students who report being employed in their field of study. It is important for us to consider how **all** of our programs connect to future careers.

Go to this website <https://www.onetonline.org/> and enter your discipline in the bubble on the top right for ideas about potential occupations. Click on an example to see more detail.

The following websites are for CTE related data:

- [Centers of Excellence](#) (many other data resources besides supply and demand) Password: GetLMI
- [LaunchBoard](#)
- [LaunchBoard Resource Library](#)
- [Chancellor's Office Data Mart](#)
- [Career Coach-San Diego Workforce Partnership](#)
- [EDD Labor Market Info](#)
- [Career One Stop](#)

What kinds of careers are available for people who complete your programs (and/or transfer)? (Refer to O*net Link below) Are there any new or emerging careers? If so, how would the new or emerging careers impact your future planning?

- Commercial and Industrial Designers (SOC 27-1021): Design and develop manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.
- Drafters, All Other (SOC 17-3019): All drafters not listed separately.
- Electrical and Electronic Drafters (SOC 17-3012): Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.
- Mechanical Drafters (SOC 17-3013): Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.
- 17-3011.00 Architectural and Civil Drafters
- 27-1021.00 Commercial and Industrial Designers
- 17-3023.00 Electrical and Electronic Engineering Technologists and Technicians
- 17-3012.00 Electrical and Electronics Drafters , Circuit Board Designers
- 51-4192.00 Layout Workers, Metal and Plastic
- 51-4041.00 Machinists
- 17-3027.00 Mechanical Engineering Technologists and Technicians
- 51-4061.00 Model Makers, Metal and Plastic
- 51-4062.00 Patternmakers, Metal and Plastic

Yes, there are always emerging careers. Nothing physical exists without it being drafted and designed, prototyped, and then produced. Our Program is closely aligned with Mechanical and Electrical Engineering, Industrial and Machining Technology.

What are the associated knowledge, skills, abilities (KSA's) needed for the occupations listed above? (click examples in the link above to get ideas)

Tasks

- Develop detailed design drawings and specifications for mechanical equipment, dies, tools, and controls, using computer-assisted drafting (CAD) equipment.
- Produce three-dimensional models, using computer-aided design (CAD) software.
- Lay out and draw schematic, orthographic, or angle views to depict functional.
- Modify and revise designs to correct operating deficiencies or to reduce production problems.
- Review and analyze specifications, sketches, drawings, ideas, and related data to assess factors affecting component designs and the procedures and instructions to be followed.
- Check dimensions of materials to be used and assign numbers to the materials.

- Design scale or full-size blueprints of specialty items, such as furniture and automobile body or chassis components.
- Compute mathematical formulas to develop and design detailed specifications for components or machinery, using computer-assisted equipment.
- Coordinate with and consult other workers to design, lay out, or detail components and systems and to resolve design or other problems.
- Confer with customer representatives to review schematics and answer questions pertaining to installation of systems.
- Position instructions and comments onto drawings.
- Supervise and train other drafters, technologists, and technicians.
- Lay out, draw, and reproduce illustrations for reference manuals and technical publications to describe operation and maintenance of mechanical systems.
- Draw freehand sketches of designs, trace finished drawings onto designated paper for the reproduction of blueprints and reproduce working drawings on copy machines.
- Shade or color drawings to clarify and emphasize details and dimensions or eliminate background, using ink, crayon, airbrush, and overlays.

Technology Skills

- Computer Aided Design CAD software
- Computer aided manufacturing CAM software
- Data base user interface and query software
- Data base user interface and query software
- Document management software
- Electronic mail software
- Enterprise application integration software
- Enterprise resource planning ERP software
- Enterprise Resource Planning ERP software
- Geographic information system
- Graphics or photo imaging software
- Materials requirements planning logistics and supply chain software
- Office suite software
- Optical character reader OCR or scanning software
- Presentation software
- Project management software
- Spreadsheet software

Work Activities

- Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment — Providing documentation, detailed instructions, drawings, or specifications to tell others about how devices, parts, equipment, or structures are to be fabricated, constructed, assembled, modified, maintained, or used.
- Working with Computers — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.
- Getting Information — Observing, receiving, and otherwise obtaining information from all relevant sources.
- Thinking Creatively — Developing, designing, or creating new applications, ideas, relationships, systems, or products, including
- Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.
- Monitoring Processes, Materials, or Surroundings — Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Updating and Using Relevant Knowledge — Keeping up-to-date technically and applying new knowledge to your job.
- Documenting/Recording Information — Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Identifying Objects, Actions, and Events — Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- Evaluating Information to Determine Compliance with Standards — Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your

work.

- Processing Information — Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
- Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.
- Inspecting Equipment, Structures, or Materials — Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Estimating the Quantifiable Characteristics of Products, Events, or Information — Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity.

Detailed Work Activities

- Create graphical representations of mechanical equipment.
- Create images or other visual displays.
- Design electromechanical equipment or systems.
- Analyze design or requirements information for mechanical equipment or systems.
- Verify mathematical calculations.
- Confer with technical personnel to prepare designs or operational plans.
- Discuss designs or plans with clients.

Skills

- Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.
- Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
- Mathematics — Using mathematics to solve problems.
- Reading Comprehension — Understanding written sentences and paragraphs in work-related documents.
- Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Speaking — Talking to others to convey information effectively.
- Coordination — Adjusting actions in relation to others' actions.
- Instructing — Teaching others how to do something.
- Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- Operations Analysis — Analyzing needs and product requirements to create a design.
- Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.
- Writing — Communicating effectively in writing as appropriate for the needs of the audience.

Knowledge

- Design — Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- Engineering and Technology — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
- Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
- English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Physics — Knowledge and prediction of physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic and sub-atomic structures and processes.
- Computers and Electronics — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
- Education and Training — Knowledge of principles and methods for curriculum and training design, teaching and instruction for

individuals and groups, and the measurement of training effects.

- Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

Abilities

- Near Vision — The ability to see details at close range (within a few feet of the observer).
- Mathematical Reasoning — The ability to choose the right mathematical methods or formulas to solve a problem.
- Visualization — The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- Fluency of Ideas — The ability to come up with a number of ideas about a topic (the
- Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression — The ability to communicate information and ideas in speaking so others will understand.
- Originality — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Selective Attention — The ability to concentrate on a task over a period of time without being distracted.
- Speech Clarity — The ability to speak clearly so others can understand you.
- Speech Recognition — The ability to identify and understand the speech of another person.
- Written Expression — The ability to communicate information and ideas in writing so others will understand.
- Deductive Reasoning — The ability to apply general rules to specific problems to produce answers that make sense.
- Inductive Reasoning — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- Problem Sensitivity — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing that there is a problem.
- Written Comprehension — The ability to read and understand information and ideas presented in writing.
- Category Flexibility — The ability to generate or use different sets of rules for combining or grouping things in different ways.
- Finger Dexterity — The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Flexibility of Closure — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Information Ordering — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- Number Facility — The ability to add, subtract, multiply, or divide quickly and correctly.
- Visual Color Discrimination — The ability to match or detect differences between colors, including shades of color and brightness.

Related occupations

- organisms, disease or other forms of impairment, or human behavior. Investigative occupations are often associated with physical, life, medical, or social sciences, and can be found in the fields of humanities, mathematics/statistics, information technology, or health care service.

Work Values

- Support — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.
- Working Conditions — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.
- Achievement — Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.

Work Styles

- Attention to Detail — Job requires being careful about detail and thorough in completing work tasks.
- Analytical Thinking — Job requires analyzing information and using logic to address work-related issues and problems.
- Dependability — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- Integrity — Job requires being honest and ethical.
- Initiative — Job requires a willingness to take on responsibilities and challenges.

Skills:

Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.

Related occupations

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Related occupations

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

Related occupations

Mathematics — Using mathematics to solve problems.

Related occupations

Reading Comprehension — Understanding written sentences and paragraphs in work-related documents.

Related occupations

Complex Problem Solving — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

Related occupations

Speaking — Talking to others to convey information effectively.

Related occupations

Coordination — Adjusting actions in relation to others' actions.

Related occupations

Instructing — Teaching others how to do something.

Related occupations

Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

Related occupations

Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Related occupations

Operations Analysis — Analyzing needs and product requirements to create a design.

Related occupations

Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.

Related occupations

Writing — Communicating effectively in writing as appropriate for the needs of the audience.

Soft Skills:

- Communication Skills
- Teamwork / Collaboration
- Detail-Oriented
- Research
- Problem Solving
- Organizational Skills
- Creativity
- Planning
- Writing
- Computer Literacy
- Written Communication
- Troubleshooting
- Verbal / Oral Communication
- Presentation Skills
- Physical Abilities

Specialized Skills:

- AutoCAD Computer Aided Drafting/Design software
- SolidWorks software
- Creo software
- Altium software

- Project Management
- Product Design
- Scheduling
- Calculation
- Engineering Design and Installation
- Mechanical Design
- Engineering Design
- Mechanical Engineering
- Budgeting
- 3D Modeling / Design
- Schematic Diagrams
- Prototyping

How does your program help students build these KSA's?

We are confident that we are building KSAs every day with our students. Our curriculum is inclusive of each of the KSA's listed above. Every course we teach is designed to build these KSAs. We know our courses are current and relevant because our Advisory Committee is always included in the addition and deletion of not only courses and programs, but also in the content that our courses contain. Most of the time we spend with our Advisors is talking about just this. We know we are current and relevant. What we do is hands-on. As instructors we implement during the lecture and the lab. We simulate real-world, Industry standard CAD labs. During this lecture they are sitting in front of their computers doing what we ask them to do on the computer. Some students have a lot of ability when they start class, others do not. Our Programs reflect the exact knowledge represented in the KSA's above. Additionally, our Advisors let us know what is needed in our classes, what is obsolete, and what is changing, what is still industry standard. As instructors, we educate ourselves by going to conferences and doing professional development that pertains to our Programs.

The following four questions are for CTE programs only. If you are not a CTE program, please go back to the BASIC INFORMATION tab and select "no" for "Are any of your programs TOP coded as vocational (CTE/CE)?"

What is the regional three-year projected occupational growth for your program(s)?

"Mechanical Drafters are projected to have the most labor market demand between 2020 and 2025, with 48 annual job openings." (Source: Centers of Excellence)

What is being done at the program level to assist students with job placement and workforce preparedness?

This is an ongoing issue since Bruce Reeve's position for job placement has been vacant. Bruce was our number one champion for finding employment for our students. He not only found interviews and placements, he coached and prepared our students. He would also give presentation for our students. Once in a while we will get a random call for job placement. We also refer our studnets to Handshake and other local resources. This is one area that really needs improvement.

When was your program's last advisory meeting held? What significant information was learned from that meeting?

March 2023. We are scheduled for our next meeting Spring 2024.

What are the San Diego County/Imperial County Job Openings?

This is an excerpt from the COE Labor Market Analysis report we request for Drafting technology:

"Drafting and Design Occupations include "Commercial and Industrial Designers," "Drafters, All Other," "Electrical and Electronic Drafters," and "Mechanical Drafters." According to available labor market information, Drafting and Design Occupations in San Diego County have a labor market demand of 132 annual job openings (while average demand for a single occupation in San Diego County is 242 annual job openings), and six institutions supply 69 awards for these occupations, suggesting that there is a supply gap in the labor market. Entry-level wages are above the living wage for most occupations, except for "Drafters, All Other." This brief recommends proceeding with a new program and supports a program modification because 1) a supply gap exists in the region; and 2) entry-level and median earnings for most occupations are above the living wage. Colleges should note that employers typically require a bachelor's degree as the minimum educational requirement for most of these occupations."

PROGRAM GOALS

Progress on Prior PRP Goals

In the most recent PRP cycle, you identified a set of goals. Provide an update to your most recent PRP goals.

[Click here for previous PRPs with goal information.](#)

Prior PRP Goals

Prior Year PRP Goal 1

Brief Description

Redesign all Certificates and AS Degrees.

Goal Status

Completed

Add any comments related to your work on prior goal (e.g., success, challenges, reasons for eliminating a goal). Describe Outcomes, if any.

We finished the redesign of all our AS/CA Degrees and are now working on "un-crosslisting" several classes. This is currently in META and should be approved by the end of the Spring semester.

Prior Year PRP Goal 2

Brief Description

Educate our students about our new AS Degrees and Certificate Programs

Goal Status

Ongoing

Add any comments related to your work on prior goal (e.g., success, challenges, reasons for eliminating a goal). Describe Outcomes, if any.

Work in progress! This will always be a goal. We had our website recently updated to reflect our latest changes.

Prior Year PRP Goal 3**Brief Description**

Update Computer Equipment in our Labs

Goal Status

Ongoing

Add any comments related to your work on prior goal (e.g., success, challenges, reasons for eliminating a goal). Describe Outcomes, if any.

We are currently purchasing new 3D Printers for our labs. They should arrive the first half of the Spring 2024 semester. Additionally we need to buy a printer and printer cartridges for the DA3 classroom.

Prior Year PRP Goal 4**Brief Description**

Always be Current and Relevant

Goal Status

Ongoing

Add any comments related to your work on prior goal (e.g., success, challenges, reasons for eliminating a goal). Describe Outcomes, if any.

This will be an ongoing commitment and goal of the Drafting Technology Department. Our industry is always changing and evolving.

Describe any changes to your goals or three-year plan as a result of this annual update.

none

Do you have any new goals you would like to add?

Yes

Establishing New Goals and Strategies for the Next Three Years**Goal 1****Brief Description**

Create a two-year calendar for class offerings

How will you complete this goal? Include Strategies and Timeline for Implementation.

It should take a couple years to implement this plan because it is dependent on multiple things happening that are for the most part out of our control.

We will need to get our part-time adjunct and full-time faculty together to strategize. We need to know when they can commit to teaching. Are they qualified and comfortable with the "Body of Knowledge" and software they will be required to teach?

Many of our classes are single section classes that are part of a pair of classes, meaning the second class runs the following semester with the first class being the prerequisite for the second. For example, DT 110 is offered in the Fall and DT 111 is offered in the Spring. DT 110 is a prerequisite for DT 111. If it does not fill in the Fall, we will not be able to run DT 111 in the Spring. The "glitch" is that the schedule is already done for the following semester, and we lose the second class for lack the pre-req being offered. This means students must wait a year to take this "set" of classes.

Additionally, since we serve other discipline's students such as Machining, Welding and Engineering, we need to learn their schedules and find out if it is always a "roll-over" schedule year to year, or do they change it up. This will impact our enrollment and our plan if we schedule our classes during their classes unless we offer multiple sections. We currently have only two courses that have multiple sections. Once we build enrollment, we can again offer more sections of the same class if Administration will allow us.

The other issue is that counselors do not pay attention to how we offer our classes, and they make "plans" for our students that can't possibly be fulfilled. We have written out pages of information for them, but it is still happening. They put "Spring Only" classes in the schedule for Fall etc. Or classes that are only offered only in Fall in a student's Spring schedule.

Outcome(s) expected (qualitative/quantitative)

- Classes filling at 100%
- Additional Certificates and Degrees awarded - goal 10 per semester, 20 per year to start
- Students being happier that courses are being offered regularly
- Having the ability to "roll" a schedule from semester to semester
- Not having to struggle to get an instructor hired in time for the semester to start
- Not having full wait lists and being told you cannot add a section

How does this goal align with your department mission statement, the college Vision Plan 2035, and /or Guided Pathways?

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. It couldn't align and better than that!

Expected Goal Completion Date

5/29/2026

RESOURCES

Congratulations! You are nearing completion. In this section, you will consider the resources you need to implement your three-year program review plan and/or address any findings from your assessment of your discipline.

The section is organized into the following five parts:

PART 1: Staffing Needs (Faculty and Additional Staff)

PART 2: Budget Review

PART 3: Technology Needs

PART 4: Facilities Needs

PART 5: One Time Request for Other Needs (NonTechnology Equipment, Supplies, Operating Expenses, Travel)

Reflect upon the three year plan you created above, your current operations, and any upcoming factors (retirements, changes in legislation, and changes in policies or procedures) that will impact your unit. How will you allocate resources to implement your plan? Describe additional resources needed to improve the effectiveness of your unit/program. All resource requests must be aligned with the College's [Vision Plan 2035](#).

Summarize any reallocation/re-organization of resources you are making based upon your three-year plan, your current operations, and any other factors (e.g., legislation). Describe the impact of the reallocation of resources to your unit.

NOTE: All requests listed in the PRP will be reviewed by deans and supervisors, then forwarded to the appropriate review group for prioritization. A resource requests approved to move forward in the review process does NOT guarantee a position or funding.

PART 1: STAFFING NEEDS

Requests for faculty will follow the prioritization process currently in place in the Faculty Position Prioritization committee, which reports to the Education, Equity, and Student Success Council. Requests for new staff positions will be prioritized at the division level and reviewed at Exec.

Are you requesting additional full-time faculty?

No

REQUEST FOR ADDITIONAL FULL-TIME FACULTY

Faculty Request 1

Title of Full-Time Faculty position you are requesting

How will this faculty position help meet district (Guided Pathways, Strategic Plan, Strategic Enrollment Management etc.), department and/or discipline goals? Please be sure to tie this back to your PRP goals and three year plan.

Is there a scarcity of qualified Part-Time Faculty (for example: Specialized degree/experience, emerging/rapidly changing technology, high demand)?

Are you requesting this position for accreditation, regulatory, legislative, health and safety requirements? Please explain.

Utilizing your PRP data, please summarize the discipline productivity, efficiency, and any regional career education needs for this discipline.

Is your department affected by faculty on reassigned time? If so, please discuss.

Are you requesting AA, CAST for Classified Staff?

No

PART 2: BUDGET REVIEW

Request that your ADA provide you with your *Available Budget Report* and complete this section.

Review your recent Budget/Expenditure reports and consider your three-year PRP plan.

Do you have any ongoing needs or needs to augment your regular budget?

Yes

What budget considerations would you like your dean/supervisor to be aware of or to consider? Describe the need and the amount of the adjustment.

The Drafting Technology program is primarily software based as the department name indicates. Each of our classes require specialized, industry standard, computer software for our classes. The software releases change every year and new software is needed to be purchased and installed prior to the Fall semester starting. Also, our software licenses expire and these software programs will not open on the computers if we do not purchase the new yearly subscription. We pay for all but one of our subscriptions annually. AutoCAD is provided by AutoDesk at no cost to the school. Another software we use is purchased each semester, not yearly) because it is only a four month subscription (one semester). We are inquiring to see if we can possibly get a yearly subscription. If we don't have the money for the software, we cannot run our classes and we wouldn't have a viable program. It is always a crazy scramble to get the software quote, order the software, have it installed in between summer classes and fall classes in our labs, and paid for each year. We need an increase in our budget for software program purchases every year. The cost of each of our software programs increases every year by several hundred dollars each. For the academic year 2024-2025 we will need our software budget alone to be approximately \$15,000. We will need our supplies budget to be increased by \$1,500 to accommodate our 3D printing materials. Finally we will need money for outreach. We do not even have an account string for outreach materials, so we have no money to do outreach without receiving Strong Workforce funds. We will need approximately \$5,000 for this account string. This will include printed materials and supplies to create and deliver specific, targeted outreach events, presentations and seminars. Additionally, this will money will provide for instructor NOHE's when necessary.

PARTS 3, 4 and 5 – TECHNOLOGY, FACILITIES AND OTHER NEEDS

1. One-Time Fund Requests. Through the PRP process the college implements an approach for prioritizing and allocating one-time needs/requests. Prioritization takes place through the appropriate groups, leadership, and the Budget Committee. The executive team and Resource Allocation Committee consider various sources for funding PRP requests. Resource requests also inform the larger planning process like Scheduled Maintenance Plans, Staffing Plans, and institutional strategic planning.

For more information about funding sources available, see [IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES](#) (on the left menu of the webpage).

If you are a CTE program and think you may qualify for CTE funds for your PRP request(s), you are STRONGLY encouraged to answer the call for Perkins/Strong Workforce grant applications in February. Contact the Dean of CTEE for additional information.

Consider submitting one-time requests only if you have verified that you cannot fund the request using your general discretionary funds or other funds.

1. Technology and Facilities Review. Requests for technology and facilities are assessed by the Deans and then, if appropriate forwarded to the proper institutional group (e.g., technology review committee, or facilities) for review and feedback.

PART 3: TECHNOLOGY NEEDS

Will you be requesting any technology (hardware/software) this upcoming year?

Yes

Technology Request

Technology Request 1

What are you requesting?

Dell A & B size Paper Copier

Is this a request to replace technology or is it a request for new technology?

Replacement of Technology

Who is the current user of the requested replacement technology?

All Students and Faculty in the Drafting Technology program, specifically room DA3

Provide a detailed description of the the request. Include in your response:

a. Description of the need? (e.g., SLO/SAO Assessment, PRP data analysis)

Our Dell color copier broke last year. We "borrowed" the copier for DA2 this year.

The type of copier needed must have both A size and B size paper capability and it must be a color copier. We had one priced out last year, but needed to use our funds elsewhere and could not purchase the printer.

b. Who will be impacted by its implementation? (e.g., individual, groups, members of department)

Instructors and students will be impacted by this purchase. Our students need to be able to print out their drawings and turn them in for credit. Also students need to print for display boards required in our classes. Drafting Technology instructors do not have printers in their offices, so we also need to use the classroom printer.

c. What are the expected outcomes or impacts of implementation?

Students will be able to print their drawings/projects. We will not have to borrow DA2's printer.

d. Timeline of implementation

We need to have this asap. It has been broken for two semesters.

What is the anticipated cost for this request? If any, list ongoing costs for the technology (licenses, support, maintenance, etc.).

approximately \$4,000 - \$4500

Do you already have a budget for this request?

No

What PRP plan goal/objective does this request align with?

Prior Goal #3 Update Computer Equipment in our Labs

What Educational Vision Plan 2035 Goal/Objective does this request align with?

3:6

If you have multiple requests for technology and had to prioritize, what number would you give this? (1 = Highest)

1

What impacts will this request have on the facilities/institution (e.g., water/electrical/ADA compliance, changes to a facility)?

We may need to move the location of the 3D printers where they currently are placed. This may require an outlet being installed in the the DA3/DA2 classroom. I am not sure if any telephone/internet "ports" are needed for this outlet.

Will you accept partial funding?

No

PART 4: FACILITIES REQUESTS**Do you have resource needs that require physical space or modification to physical space?**

No

PART 5: OTHER ONE-TIME NEEDS

For more information about funding sources available, see [IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES](#). Please check with your department chair on the availability for this cycle.

Do you have one-time requests for other items (e.g., Non-technology equipment, supplies, operating expenses, travel) that your budget or other funding sources will NOT cover?

No

I confirm that all full-time faculty in this discipline have reviewed the PRP. The form is complete and ready to be submitted.

Yes

Enter your email address to receive a copy of the PRP to keep for your records.

atalone@palomar.edu

Feedback and Review

Department Chair

I confirm that the PRP is complete.

Yes

Department Chair Name

Anita R. Talone

Date

4/3/2024