

Entry #: 70 - Career, Technical and Extended Education

Status: Submitted

Submitted: 3/21/2024 4:48 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

Trade and Industry

Microsoft_List_ID**Discipline Name**

Water Technology Education (WTE)

Department Chair Name

Ashley Wolters

Department Chair email

awolters@palomar.edu

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

Jacob Shiba- Associate Professor of Water Technology

Website address for your discipline<https://www.palomar.edu/watertech/>**Discipline Mission statement**

Our mission is to educate and prepare all students, including those of diverse backgrounds, experiences, and abilities for careers and advancement in the water industry. Our committed, highly trained faculty and partnerships with Local, State, and National entities ensure that our graduates will have successful careers that improve their lives, their communities, and the economy.

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

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.

AS, CA in Water Technology

AS, CA in Wastewater Technology

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)?

1

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

F23 0.6
SP23 0.8

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

F23 1.07
SP23 0.6

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

Trade and Industry ADA

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

None

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.

Fall success rates have largely increased since 2020 to 2023. This is mostly expected, as we have been coming out of the pandemic and adapting to a new normal.

F2019 85.5% F2020 76% F2021 71.4% F2022 75.2% F2023 98.8%

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

Increased

Was this expected? Please explain.

Fall success rates have largely increased since 2020 to 2023. This is mostly expected, as we have been coming out of the pandemic and adapting to a new normal.

F2019 97.2% F2020 90.1% F2021 95.5% F2022 96.8% F2023 84.8%

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

Gender

Ethnicity

Gender: What did you find and why do you think gender differences exist? How can you close the gap?

Success rates are notably lower for Hispanics then for Whites, 78% to 90%. It is noteworthy that N=106 for Hispanics and N=115 for Whites. This could be due to English as a second language and could be closed by adding more ESL support to courses.

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

Success rates are notably higher for females, 96% to 83%. It is noteworthy that N=23 for females and N=215 for males. This could be due to a lack of women in the program and perhaps women feel like they need to do better to compete in a male dominated program.

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.

In water technology we are focused on increasing retention and success rates through a variety of methods including: increasing awareness of Palomar services for students, including more inclusive content into courses, adapting course modalities to student needs, increasing opportunities for students to collaborate with each other, and being more persistent with reaching out to students who are struggling.

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")



[2. Last result, action, and follow-up date for each active program outcome.xls](#)
26 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.

AS 8 8 7 13 13 11

CA 30 15 8 20 17 21

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").



[2. Last result, action, and follow-up date for each active program outcome.xls](#)
26 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.

Completions increased pretty dramatically from 2018 to 2019 and have leveled off for the most part since. This increase does coincide with the hiring of the disciplines first full-time faculty member. This likely played a role in the increase. With enrollments increasing over the last few years, we anticipate completions to follow in about a 2 year lag time.

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

Low enrollments and having to cancel classes that students need to complete CA and ASs is a major impact. When we only have 9 students enrolled, I have to fight to keep the class, which I am only successful some attempts. Even though it was only 9 students, who know how many of those students needed that to complete their AS or CA. Another challenge is that students take a few classes, get a few industry certs, and then get a great paying job and do not finish their degree. This is very difficult and labor some to track, but is a true measure of success for the program.

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?

Water and Wastewater Treatment Plant and System Operators, Water Resource Specialists, Meter Readers, Utilities

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

Chemistry — Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.

Related occupations

Biology — Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.

Related occupations

Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

Related occupations

Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Related occupations

Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.

Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.

Related occupations

Oral Expression — The ability to communicate information and ideas in speaking so others will understand.

Related occupations

Near Vision — The ability to see details at close range (within a few feet of the observer).

Related occupations

Written Comprehension — The ability to read and understand information and ideas presented in writing.

Related occupations

Deductive Reasoning — The ability to apply general rules to specific problems to produce answers that make sense.

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

We build these KSAs into each course through the COR. They are contained in the course SLOs and body of knowledge.

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)?

Job growth in the Imperial Valley and San Diego region is estimated to grow by 4%, according to a 2024 COE report.

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

Each course is designed with workforce preparedness in mind. In addition to this, we participate in the regional internship program and recently created a new internship with our local water agency that has seen 5 interns. We created a Career preparedness class as well that has now served over 100 students. We host a Water Tech open house each semester to bring students together for the opportunity to network and collaborate I also keep students informed about local industry events such as career fairs and workshops. I will also be applying for an NSF grant

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

March 5, 2024. The focus of industry is to increase work based learning opportunities, specifically through expanded internships. They would also like to see microcredentials pursued.

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

For 2023 there are 1,176 jobs, with 121 annual opening.

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**

Purchase supplies and equipment to fully outfit the new water/wastewater lab with the latest technology in water delivery systems

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 goal will always be ongoing, as technology is ever-changing. The most recent challenge was receiving \$0 from SWF or Perkins for the 2023 award year.

Prior Year PRP Goal 2**Brief Description**

Revise curriculum to improve program

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.

The major overhaul to elevate all courses to three-digits and merge the WWT and WTE program is complete, however we will always be looking to update curriculum and add new courses to meet industry needs. Specifically we are looking at adding water conservation, safety, and advanced water treatment.

Prior Year PRP Goal 3**Brief Description**

Increase program awareness, enrollment, and completion

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 goal will also be ongoing and a fair amount of my time is spent on this goal to include: attending career fairs at local high schools, give career talks, actively use social media, network with local industries, etc. This year we are looking to create a summer bridge program and create more outreach materials targeting parents in English and Spanish.

Prior Year PRP Goal 4**Brief Description**

Increase student pathways to employment

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 continuing our exclusive internship with Vallecitos Water District and currently have our 5th intern there. We are also working to expand this internship to other agencies, but the biggest barrier for student success is still that it is unpaid. We will continue to participate in the SD Regional Water and Wastewater Internship Program. However, the need for these types of programs far outpaces the supply so we will work to increase these opportunities. We will also be looking to expand WBL opportunities such as: industry tours, guest speakers, career pathways workshops, and adding a career module to every class.

Prior Year PRP Goal 5**Brief Description**

Build an on-site wastewater treatment plant

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 is a newer goal and is more like a 7-8 year goal for total completion. We are currently monitoring the waste stream that the college produces and are looking into bond funding for the project.

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

All goals have had some updates and are looking to expand on them. Goal 5 is the newest and will be something that I pursue for the next 7-8 years. An onsite wastewater treatment plant will make Palomar's program the premier wastewater program in the Country.

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

No

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

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.

In order to continue the growth and improvement of the program, we need to continue to upgrade lab equipment, improve outreach methods, and develop more work based learning opportunities for students.

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?

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?

Yes

Requests

Item 1

What are you requesting?

Attending additional conferences to promote the program, solicit donations, and build industry partners.

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)

Increasing enrollment and upgrading existing equipment

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

The full-time faculty member and all students in the program.

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

Creating new industry partnerships, growing program enrollments, receiving industry donations.

d. Timeline of implementation

Major conferences held quarterly each year

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

\$2,000 per year for a few local, one regional, and one national conference.

Do you already have a budget for this request?

No

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

1, 3, and 4

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

1:4	3:7	4:3
3:1	4:2	4:4

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

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

None

Will you accept partial funding?

Yes

Budget Category

Travel Expenses for Faculty

Please upload a copy of the quote, if available.

Item 2**What are you requesting?**

Summer NOHE to move goals 3, 4, and 5 forward.

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)**

Increasing program awareness, improving pathways to employment, and getting wastewater students contact hours for State certification.

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

Full-time faculty, local high school students, and current students.

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

Piloting a summer bridge program with local high schools, placing Palomar WTE students into the regional internship program, and moving forward with the business plan for the wastewater treatment plant.

d. Timeline of implementation

Summer 2024

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

\$15,950 to cover NOHE for 16 hours per week for 11 weeks during summer.

Do you already have a budget for this request?

No

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

3, 4, and 5

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

3:1

3:5

4:2

4:4

3:3

3:7

4:3

4:7

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

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

None

Will you accept partial funding?

Yes

Budget Category

Operating Expenses

Please upload a copy of the quote, if available.

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.

jshiba@palomar.edu

Feedback and Review

Department Chair

I confirm that the PRP is complete.

No

Department Chair Name

Date