Status: **Read**   Status: **Submitted**

Entry #: 111

Date Submitted: 11/4/2021 7:13 PM

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.

BASIC PROGRAM INFORMATION

Academic Year
2021-2022

Are you completing a comprehensive or annual PRP?
Annual

Division Name
Career, Technical and Extended Education

Department Name
Trade and Industry

Department Chair Name
Jennifer Anderson

Discipline Name
Air Conditioning, Heating and Refrigeration (ACR)

Department Chair email
janderson2@palomar.edu

Please list the names and positions of everyone who helped to complete this document.
Barry Valentine, Assistant Professor

Website address for your discipline
https://www2.palomar.edu/pages/acr/

Discipline Mission statement
Palomar College ACR Program's mission is to be the leading provider of entry level and professional growth education in heating, air conditioning, and refrigeration. Through state-of-the-art equipment, hands-on training, and academic instruction we provide students with the skills necessary to begin or improve a career path in the ever-changing HVAC industry.

(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.
ACR A.S. Degree Major
Certificate of Achievement
Certificate of Proficiency

BASIC PROGRAM NFORMATION: 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 two links below. An arrow will appear in the spreadsheet pointing to the data you will enter.

1) **Permanent Faculty and Staff Count**

 2) **FTEF LINK**

How many 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?
1.2

For this past fall semester, what was your Part-time FTEF assigned to teach classes?
0

List the classified and other permanent staff positions that support this discipline.
none

List additional hourly staff that support this discipline and/or department
Michelle Tucker, ADA approximately 1 hour weekly

PROGRAM INFORMATION

In this section, you are asked to consider and evaluate your programs, including their program learning outcomes, the annual number of completions, goals for completions, and enrollment and efficiency trends.

PROGRAM LEARNING OUTCOMES

Begin this section by reviewing the Program Review reports for programs and courses in Nuventive Improve (TracDat). All active course and program learning outcomes should be systematically assessed over a 3-year cycle. First, look at program learning outcomes.

- **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?
As a new program, the SLO's were likely prepared with minimal knowledge of the class scope and depth. The current SLO's are adequate but need updating to reflect the dynamic and expansive course offering. I will work this year on updating the SLO's.

How do they align with employer and transfer expectations?
The current SLO's topics cover specific major learning points that are critical to employer expectations for work knowledge, but need expanding. ACR is a trade based discipline that directly trains students for fairly quick employment. Students are encouraged to complete the minimum "employment ready" courses, get a job in the industry, then return at night to continue courses towards a Certificate or Degree.
Classes are not typically designed for transfer to another college, so therefore does not apply.

Describe your program's plan for assessing program learning outcomes.
As a new program and as a new instructor, I am not sure of the process and how SLO's are assessed or updated. This is a topic of discussion with my supervisor and Dean that I will explore and see through to completion.

Summarize the major findings of your program outcomes assessments.
I feel the current student learning outcomes need improvement, I will assess and update them when the opportunity arises.

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, you will reflect upon the number of completions students earned for EACH degree/certificate you offer. As required for accreditation, you are also asked to set a standard which represents the lowest acceptable number of completions and a stretch goal for increasing the number of awards.

Link to **Program: Completions**

Copy and paste five years of completion data for each of your discipline's degrees and certificates.
Zero, this is a new program to Palomar College, less than three years.

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

What factors have influenced your completion trends?
This is a new program to Palomar College with minimal data to assess.

Our accrediting body, ACCJC, and the Federal Department of Education requires that colleges establish standards and goals for student success and completion.

A program-set standard for completion represents the lowest number of program completion you deem acceptable for your program. 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.

A program stretch goal for completions is the number of completions you aspire to award for each program in your discipline.

To determine your stretch goal, consider the number of annual completions you typically award over time, then consider strategies or efforts you are making to increase completions in your program. Then identify the NUMBER you want to set as your goal.

Program Information Summary

In this section you are asked to evaluate your programs by considering their program learning outcome assessments, the annual number of completions, goals for completions, enrollment and efficiency trends 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.
This is a new program to Palomar College with minimal data to assess.

What factors have presented challenges for your program(s)? Describe the impact of these challenges.
This is a new program to Palomar College with minimal data to assess.

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 stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

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 about the assessment of student learning outcomes at the course level, progress you have made in these assessments, and changes you have implemented as a result/

COURSE SUCCESS AND RETENTION

ACCJC also requires that colleges establish institutional and program level standards and stretch goals for course success rates.

Program-set standards for course success rates represent the lowest success rate deemed acceptable by your discipline. 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. The College's institution-set standard for course success rates is 70%

Program-set stretch goals for course success rates represent the success rates you aspire your students to achieve.

Link to Course Information

The data includes overall success (% C or better) and retention rates (% No Ws) . The data tables include course 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/)

What is your program's standard for Discipline COURSE Success Rate?
30.0%

Why did you choose this standard?
As this is a new program, students are currently working through the courses to build enough for a certificate, not all classes have been offered in the past to satisfy the certificate requirements. ACR is also a trade leading to an entry level job and about half of the students do not have an interest in obtaining a Degree or Certificate.

What is your stretch goal for course success rates?
50.0%

How did you decide upon the goal?
At this time we are working to keep students moving through the courses. Educating students on the Certificate and Degree programs may increase the participation in higher level courses to allow degree and certificate completion.

COURSE STUDENT LEARNING OUTCOMES (SLOs)

Summarize the major findings of your course level student learning outcomes assessments.
These are new courses and we have not had any course-level improvements.

Excluding courses that haven't been offered in the last three years, confirm that all of your courses have been assessed in the last three years.
No

If you answered no, please explain.
This work is in process, there are issues with the software and currently it is not possible to update the SLO's.

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

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

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 link above) Are there any new or emerging careers? If so, how would the new or emerging careers impact your future planning?
Primarily students work toward an entry level position in either air conditioning and heating installation or air conditioning and heating service work. Positions are available in the residential and commercial field with most companies doing one or the other. Energy Engineer and Geothermal Technicians are two emerging careers that our students would be excellent candidates for. Energy efficiency and green practices are part of the ACR curriculum.

What are the associated knowledge, skills, abilities (KSA's) needed for the occupations listed above? (click examples in the link above to get ideas)
Knowledge: Mechanical, Customer Service, Design, Physics
Skills: Equipment Maintenance, Installation, Troubleshooting
Abilities: Cognitive, Physical, Psychomotor, Sensory

How does your program help students build these KSA's?
Our lecture part of each course instructs students through design, physics, and the fundamentals of the mechanical aspects of how equipment works in theory and on actual equipment. Through the lab part of each class we have students physically maintain equipment, install, and troubleshoot systems as part of the course. The hands-on work develops their cognitive, psychomotor, and sensory skills as they work through operating and performing tasks on live equipment. Students are also given real life situations and service calls to walk through to start forming the customer service and troubleshooting skills and knowledge necessary for the job.

Work Based Learning

Applied and work-based learning (WBL) allows students to apply classroom content in professional settings while gaining real-word experience. WBL exists on a continuum that reflects the progress of experiences from awareness-building to training. Students often cycle back through the continuum many times throughout college and throughout their career. Faculty play a critical role in ensuring these experiences are embedded into curriculum and support learning.

Have you incorporated work based learning (work experience, internships, and/or service learning) into your program?
No

Do you want more information about or need assistance integrating work-based learning into your program?
No

How do you engage with the community to keep them apprised of opportunities in your program?
As lead instructor, I have manned tables at high school career night events discussing our industry and the training provided by Palomar College. This coming January I will be participating in the Path to Palomar program and I also was a guest speaker at the 2019 Palomar Community Showcase event where I talked about our new program to the community leaders and guests. I also annually hold CTE Industry Advisory Board meetings where I bring local company owners and managers to Palomar to showcase our programs and build relationships for future positions for our students.

What is the regional three-year projected occupational growth for your program(s)?
The Projected growth is Average (5% to 10%) for the HVAC Industry in California.

What is being done at the program level to assist students with job placement and workforce preparedness?
I purposely have my Final Exam two weeks before the end of the semester so that I am able to fully discuss the questions, answers, hands-on testing, etc. since some of the students will be seeking work after the semester. I also use the last class of the semester to talk about interviewing, resumes, contractor testing, etc. to make sure students have those tools as well when looking for employment. I meet with my Advisory Committee annually to ensure that our students are prepared with the skills needed for the workforce.

When was your program's last advisory meeting held? What significant information was learned from that meeting?
Our last ACR Advisory Meeting was mid March 2021. I highlighted our newest course which was ACR 110 Advanced Air Conditioning and discussed our next course to be rolled out Spring 2022 which is Building Automation DDC Controls. One major item learned in our meeting was the greater need for sheet metal work capabilities by the students. This is something taught in another course but it is also part of the ACR 110 course, so we will look at expanding that.

What are the San Diego County/Imperial County Job Openings?
I was unable to find regional information but the California projected job openings for the next 10 years is 38,500.
Projected job openings (2020-2030) 38,500

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.

If you require any additional resources beyond your exiting budget, please be sure to request those resources in the next section titled "Resources".

Goals

Goal 1

Brief Description
Class and Lab Curriculum for each ACR Course

Is this a new or existing goal?	**Goal Status**
Existing	Ongoing

How will you complete this goal?
Goal 1 is to have a clear and concise class and lab curriculum for each of the six current Palomar ACR classes. This will include a weekly course outline for the class and associated lab activities, physical equipment, tools, material lists for each lab activity and a baseline of lecture outlines, animated Power-points, handouts, videos, picture, etc. for each of the class topics ready subsequent semesters.

Outcome(s) expected (qualitative/quantitative)
The expected outcome is to have a completed Canvas Shell with specific weekly tasks, a binder with the hard copy handouts, and weekly lab projects developed and ready to implement for each of the six courses. This will allow any new instructor to step into our "system" and teach the same information each class with room for creativity. It will also have a pre-determined amount of cross-over learning between courses and information that is dedicated just for that specific course. At this time, two of the classes ACR 101 and ACR 102 are 100% complete with this process. ACR 103 is 70% complete, ACR 105 is 100% complete, ACR 110 are 80% complete and ACR 112 is 0% complete.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
This goal aligns perfectly with the department mission statement. This Goal #1 is the structure needed to allow the content of the Palomar College ACR program's Mission Statement to be realized.

Expected Goal Completion Date
1/1/2023

Goal 2

Brief Description
Develop and expand local business connections to the Palomar ACR Program, especially connecting student interviewing and hiring.

Is this a new or existing goal?	**Goal Status**
Existing	Ongoing

How will you complete this goal?
This goal will started with our last Industry Advisory Board meeting. It was somewhat abbreviated since we had to do it over a phone due to Covid-19. I will continue to reach out to local HVAC companies to communicate our program to them. I will do my best to invite the Presidents, Service, and Installation Managers to participate in the Advisory Board Meetings to learn what they are currently looking for in service and installation technicians and to also showcase our program, the course curriculum and how it aligns with the industry need for this knowledge and skill sets.

Outcome(s) expected (qualitative/quantitative)
The expectation is to have 6-8 company representatives visit our lab and classroom in person, to hear about our program and be excited about our product. Depending on Covid restrictions, I will invite these attendee's to visit our program during
class times and discuss their companies, their needs, and requirements in an entry level employee. In return for their time, I will maintain a database of employers and encourage students to apply and submit resumes once they have completed the required classes. This process will become larger and easier as time goes on and we continue to build that industry/Palomar relationship.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
The main tenant of the Mission Statement is to produce a student with the knowledge and skill sets to begin entry level employment with a local business. This goal facilitates the interest level on the employer's part and creates a path for the student to begin employment with these companies.

Expected Goal Completion Date
4/1/2022

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 four parts:

PART 1: Staffing Needs (Faculty and Additional Staff)

PART 2: Budget Review

PART 3: Technology and Facilities Needs

PART 4: One Time Request for Other Needs (NonTechnology Equipment, Supplies, Operating Expenses, Travel)

PART 1: STAFFING NEEDS

Requests for faculty will follow the prioritization process currently in place in IPC, and the IPC SubCommittee. Requests for new staff positions will be prioritized at the division level and reviewed at Exec.

Are you requesting additional full-time faculty?
No

NOTE: If you are requesting full-time faculty, you must go back to the Labor Market section of the form to complete that section. It is required when requesting additional faculty positions.

Are you requesting new Classified, CAST or AA positions?
No

PART 2: BUDGET REVIEW

Review your Budget/Expenditure reports for fiscal year 2019, 2020, 2021. Consider your three-year PRP plan.

Click on the link below to access directions to the *Available Budget Report* to complete this section.

How to Request the Available Budget Report

Reflecting on your three-year PRP plan, are there any budget considerations you would like your dean/supervisor to be aware of for the upcoming year?
No

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

1. One-Time Fund Requests. The college is implementing a process for prioritizing and allocating funds for one-time needs/requests tied to Program Review and Planning. Prioritization will take place through participatory governance in planning councils and the Budget Committee. Then, a recommendation will be made to Exec for funding of request utilizing various funding sources.

   For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES.

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

2. Technology and Facilities Review. From now on, ALL requests for technology will go through an institutional review process. If you request technology here, you will see a description of the process below.

PART 3: TECHNOLOGY AND FACILITIES 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?
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.
bvalentine@palomar.edu