



# 2022-23 Instructional Program Review and Planning

## 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**

2022-23

**Are you completing a comprehensive or annual PRP?**

Annual

**Division Name**

Mathematics, Science and Engineering

**Department Name**

Computer Science and Information Systems

*Choose your department. If you don't see it, you may add it by typing it in the box.*

**Discipline Name**

Computer Science and Information Systems - Networking (CSNT)

*Choose your discipline. If you don't see it, you may add it by typing it in the box.*

**Department Chair Name**

Terrie Canon

**Department Chair email**

tcanon@palomar.edu

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

Rand Green, Professor

David Meske, Associate Professor

**Website address for your discipline**

<https://www.palomar.edu/csit/>

**Discipline Mission statement**

The mission of the Computer Network Administration discipline at Palomar College is to offer our students current and valid training and certification preparation for both transfer and direct employment in the industry of Computer Network Administration. Studies in Computer Network Administration lead towards multiple Associate of Science degrees and preparation for multiple industry certifications from the most accepted and current certification vendors. As a strong CTE program, students will train to be well-rounded professionals in the field and will be prepared to enter a rapidly growing 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 ☐ No

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

☐ Yes ☐ No

**List all degrees and certificates offered within this discipline.**

A.S. Cybersecurity  
A.S. Cloud Computing and Virtualization  
A.S. Computer Network Administration - Cisco  
A.S. Computer Network Administration - Microsoft  
C.A. Computer Network Administration - Cisco  
C.A. Computer Network Administration - Microsoft  
C.A. Cyber Defense Infrastructure Support Specialist  
C.A. Cybersecurity Specialist  
C.A. Cloud Computing Technician

*AA, AS, ADT, Certificates, etc.*

## **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

*Enter a number.*

Link: [Permanent Faculty and Staff Count](#)

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

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

1.67

Link: [FTEF Data](#)

FTEF = PT hourly and overload.)

1.53

Link: [FTEF Data](#)

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

Department ADA

Link: [Permanent Faculty and Staff Count](#)

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

N/A

## 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](#). 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? Please explain.**

Our program's learning outcomes communicate a comprehensive scope of learning outcomes students expect to be able to communicate, analyze, and/or demonstrate upon completing individual courses and their respective academic programs. These learning outcomes are associated with major industry learning standards and industry certificates. Since we map our courses to these industry certifications, students can associate the course and program learning objectives to common industry certifications that are generally recognized by those pursuing information technology careers.

**How do they align with employer and transfer expectations?**

The CSIT Networking discipline learning outcomes map directly to industry learning objectives necessary for equivalent industry certifications. By doing this Palomar College is aligning program learning outcomes with the expectations of employers, leading industry certification bodies, and four-year universities

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

The CSNT discipline primarily utilizes exams and labs to assess student learning outcomes. Faculty within the discipline review the learning outcomes of the program while reviewing and updating the program courses on a rotating basis. Since technology changes frequently, each of the program's degree offerings are reviewed frequently.

**Summarize the major findings of your program outcomes assessments.**

The primary finding of the CSNT program outcome assessment is that more quantitative data is needed to most effectively assess the program's outcomes. CSNT faculty will be reviewing options to better correlate course learning assessments with the growing CSNT 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. 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: [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 (Count)

Academic Year	2016-17	2017-18	2018-19	2019-20	2020-21	
2021-22						
Associate in Science Degree	19	16	15	12	12	17
AA/AS Total	19	16	15	12	12	17
Certificate of Achievement	28	24	16	9	6	11
Certificate of Proficiency	2					
Certificate Total	30	24	16	9	6	11
Grand Total	49	40	31	21	18	28

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

☐ Increased ☐ Stayed the same ☒ Decreased

Choose one

#### What factors have influenced your completion trends?

Enrollment decreases, budget decreases, constantly changing administration, lack of marketing funds, crucial classes have been cut each semester and seriously lacking support by administration for dual enrollment at the high schools.

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.

The discipline has highly skilled faculty members teaching the courses. Many of our part-time faculty are currently in the field.

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

The college has cut classes. The college has removed most all of our classified support. The discipline was recently stripped of our Systems Analyst and our ISA positions. The discipline has NO student support for tutoring, student assistance or lab configurations.

## 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 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.

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?

70.0%

*The College's institutional standard for course success rate is 70%. To access college success rates. Click on the link below.*

Link: [Course Success Rate Information](#)

UPDATE 9/26/2022: The Course data links are under construction and will be operational shortly. This note will be removed when then link becomes functional again. Apologies for the inconvenience.

### Why did you choose this standard?

The programs are very challenging and highly technical. The discipline is on average with the college in it's entirety.

### What is your stretch goal for course success rates?

80.0%

**How did you decide upon the goal?**

We would like to see more students complete the programs and enter the workforce.

## **COURSE STUDENT LEARNING OUTCOMES (SLOs)**

**Summarize the major findings of your course level student learning outcomes assessments.**

The discipline continues to assess our courses and programs based on current industry certifications. The industry certifications and standards are what guides our student learning outcomes. The discipline has been consistent in achieving the student learning outcomes.

Course level SLOs can be accessed through [Nuventive Improve](#)

**Excluding courses that haven't been offered in the last three years, do you confirm that all of your courses have been assessed in the last three years.**

☒ Yes ☐ No

**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 O\*net Link below) Are there any new or emerging careers? If so, how would the new or emerging careers impact your future planning?**

There are various careers that are available to students that complete programs in the CSNT discipline including network administrator, network specialist, network analyst, server administrator, server OS specialist, systems analyst, cybersecurity analyst, and cybersecurity specialist. Our new programs in cybersecurity and cloud computing are examples of the discipline capitalizing on the emerging careers in the field. The next few years will focus on building out these two programs fully.

Link: <https://www.onetonline.org/>

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



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

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administrator, network specialist, network analyst, server administrator, server OS specialist, systems analyst,

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examples of the discipline capitalizing on the emerging careers in the field. The next few years will focus on building out

these two programs fully.

There are many KSAs that are needed for the above-mentioned occupations and below list just a few:

- Knowledge of computer networking concepts and protocols, and network security methodologies.
- Knowledge of cyber threats and vulnerabilities.
- Knowledge of system and application security threats and vulnerabilities (e.g., buffer overflow, mobile code, cross-site scripting, Procedural Language/Structured Query Language [PL/SQL] and injections, race conditions, covert channel, replay, return-oriented attacks, malicious code).
- Knowledge of installation, integration, and optimization of system components.
- Knowledge of network security architecture concepts including topology, protocols, components, and principles (e.g., application of defense-in-depth).
- Skill in designing the integration of hardware and software solutions.
- Skill in conducting vulnerability scans and recognizing vulnerabilities in security systems.
- Ability to communicate complex information, concepts, or ideas in a confident and well-organized manner through verbal, written, and/or visual means.
- Ability to collaborate effectively with others.
- Ability to apply network security architecture concepts including topology, protocols, components, and principles (e.g., application of defense-in-depth)

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

Faculty within the discipline work to include activities and assignments that focus on building these KSAs including soft

skills such as written and verbal communication through reports, written assignments and presentations.

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)?**

Based on the San Diego Workforce Partnership data, occupational growth for network administration occupations will be increasing over the next three years and continue to increase through 2029. For information security analyst positions, employment counts in the region will also be increasing at an even higher rate. According to cyberseek.org, the San Diego region has nearly 9,000 open positions in the cybersecurity field and the supply of workers is listed in the Very Low category

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

At the program level, assistance or students with job placement is performed on a student-by-student basis by individual faculty members. The CSNT discipline does not have a formal job placement or workforce preparedness program in place

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

Due to the pandemic, the discipline has not had an advisory meeting in the past 2 years. Faculty in the discipline have stayed current with market trends and have kept in contact with industry partners. The discipline plans to have an industry meeting in the fall of 2022.

*Career Education programs are required by Title 5 to conduct a minimum of 1 advisory meeting each year.*

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

Most job openings are for cybersecurity analysts and according to cyberseek.org, there are nearly 9,000 job openings in the San Diego metro area for cybersecurity-based jobs. According to the San Diego Workforce Partnership data, occupational growth for network administration occupations will be increasing over the next three years and continue to increase through 2029.

*Include short- term # of projected job openings and long -term # of projected job openings*

**Work Based Learning**

Applied and work-based learning (WBL) allows students to apply classroom content in professional settings while gaining real-world 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?**

☐ Yes ☒ No

**Do you want more information about or need assistance integrating work-based learning into your program?**

☒ Yes ☐ No

**Please list any questions and describe what you need to integrate work-based learning.**

The program needs access to work-based learning staff with connections to employers in the field willing to provide internships and service learning opportunities.

**How do you engage with the community to keep them apprised of opportunities in your program?**

We primarily rely on the Communications, Marketing, and Public Affairs office for advertising programs within the CSNT discipline. We also participate in the Dual Enrollment program and offer a 4-course sequence to high school students interested in computer networking and cybersecurity

*For example: regular meetings with community partners, connections with local High Schools, dual enrollment, Universities, business partnerships, Palomar events (i.e. Tarde de Familia, House of Humanities), and/or community groups (i.e. chamber, associations, non-profits).*

## 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

#### Goal 1

##### Brief Description

Revise Network Administration degree.

##### Goal Status

☐ Completed ☒ Ongoing ☐ No longer a goal

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

Due to the course cuts, the discipline has decided to revise the multiple networking degrees into one streamlined degree in hopes that we increase enrollment, success rates and retention rates.

#### Goal 2

**Brief Description**

Return to previous staffing levels for student support.

**Goal Status**

☐ Completed ☒ Ongoing ☐ No longer a goal

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

The discipline and the department have had all support staffed removed. We no longer have a systems analyst, or instructional support assistants which provided technical assistance and student support such as tutoring. These areas are crucial to the success of the discipline.

**Goal 3****Brief Description**

Update all labs in preparation of returning to campus for some highly technical classes.

**Goal Status**

☐ Completed ☒ Ongoing ☐ No longer a goal

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

The discipline and department labs are seriously outdated in regards to hardware and software. We have highly technical curriculum and need the labs, faculty computers and software to be at the highest level. We need the information services department to support this goal along with budget allocation.

**Goal 4****Brief Description**

Add 2 new certificate of achievements for Cybersecurity

**Goal Status**

☒ Completed ☐ Ongoing ☐ No longer a goal

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

The challenges remain that the college is in a crisis. The discipline is not able to offer many of the new courses, and we are lacking support.

**Goal 5****Brief Description**

Implement new Amazon Web Services courses and program.

**Goal Status**

☐ Completed ☒ Ongoing ☐ No longer a goal

**Add any comments related to your work on prior goal (e.g., success, challenges, reasons for**

**eliminating a goal). Describe Outcomes, if any.**

The courses and the programs have been completed. However, the college is in a no growth period so the discipline is not able to offer them.

## Goal 6

### Brief Description

Increase student participation in cybersecurity competitions

### Goal Status

☐ Completed ☒ Ongoing ☐ No longer a goal

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

Students have reported overwhelmingly to cybersecurity faculty that participating in cybersecurity competitions increases their passion for cybersecurity as well as increases their knowledge and skills. Continuing to support students in competing in cybersecurity competitions will help students as well as Palomar College as a whole.

**The Strategic Plan 2022 includes the College's Vision for Success (VfS) outcomes. Review the VfS goals and reflect on how your unit supports these outcomes. Identify one strategy your unit will implement to help the college meet these outcomes.**

The discipline will keep all classes and programs updated and relative to the workforce so that more students will earn vocational degrees and enter the workforce.

[Click here to access the Strategic Plan 2022.](#)

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

The discipline will be requesting much more support from the college in order to be successful as we once were.

## 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 [Strategic Plan 2022](#).

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?**

☐ Yes ☒ No

**Are you requesting AA, CAST for Classified Staff?**

☒ Yes ☐ No

## REQUEST FOR ADDITIONAL CLASSIFIED, CAST, AA

### Staff, CAST, AA request 1

**This year, units are asked to identify new positions only as part of the PRP process. Vacant positions will be addressed outside of the PRP process.**

If you are requesting STAFF, please fully complete this section. If not, you can skip to the next resource section. Click "+Add Staff, CAST, AA request" below for each additional request.

When considering the funds required for a position, consult the HR website for position salary schedule and the [Benefits Worksheet](#) for additional costs related to benefits for the position.

**Title of new position**

Instructional Support Assistant 3

**Is the position request for AA, CAST, or Classified staff?**

Classified

**Is this request for a full-time or part-time position?**

☒ Full Time ☐ Part-Time

☐

**How does the position fill a critical need for current, future, or critical operations?( e.g. accreditation, health and safety, regulatory, legal mandates, institutional priorities, program trend analyses of growth/stability.)**

This position fills a critical need to support specific computer network labs for Computer Network Administration degree programs. Not all labs are the same and can be supported by a central IT department. Continuing to not fund an ISA position for our department will result in the labs being unmanaged, outdated, and not utilized to their greatest potential.

**Does the position assist in establishing more efficient District operations through either of the following: reorganization/restructuring OR use of technology?**

The most recent reorganization of removing the last ISA left the department with no support for the current academic year other than ad-hoc per-incident support from IS. Transitioning to a central technology support model essentially transferred the overall computer lab management and support to the department faculty with indirect technical support from Information Services. Furthermore, this model places the responsibility of planning, troubleshooting, and initiating support requests to a central IT department in order to maintain the academic labs used to instruct students directly to the faculty. The previous model of having a dedicated ISA to manage the instructional computing labs is more effective in supporting student and faculty needs in these labs rather than transferring this responsibility to instructional faculty.

**Is there funding that can help support the position outside of general funds?**

☐ Yes ☒ No

**Describe how this position helps implement or support your three-year PRP plan.**

**Strategic Plan 2022 Objective**

- |                              |                              |                              |                              |
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Refer to the Palomar College <https://www2.palomar.edu/pages/strategicplanning/files/2020/01/FINAL-Strategic-Plan-2022.pdf>

**If the position is not moved forward for prioritization, how will you address this need?**

## 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 budet considerations you would like your dean/supervisor to be aware of for the upcoming year?**

☒ Yes ☐ No

**What budget considerations would you like your dean/supervisor to be aware of or to consider? Please be as specific as possible. For example, if you need an increase in the 40000 account and a decrease in the 23000 account, describe what increase your department needs, how much, and a description of why the department needs the adjustment.**

The cybersecurity program utilizes online cyber ranges to provide lab access to students for both online and in-person classes. The immediate financial need was met by a Palomar Foundation grant, however, those funds need a permanent budget line item in Account 500010.

Requesting \$12,000 per year to procure lab time in the U.S. Cyber Range

Requesting \$3,500 per year to procure National Cyber League online training/cybersecurity competition registrations

## 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 ad 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.

2. 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 ☐ No

### Technology Request

#### Technology Request 1

**What are you requesting?**

U.S. Cyber Range lab time for students to complete lab activities in cloud-based environment.

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

New Technology

**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)**

Since the pandemic, our lab-based classes transitioned to the online modality. In order to facilitate lab activities, course content for the labs were migrated to the U.S. Cyber Range. This resource is needed to facilitate continuous lab activities for cybersecurity students.

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

Students will be impacted if we are unable to continue to offer this option because students do not have the computing resources at home to utilize virtualization software in the same manner that we did in the computer classes.

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

The expected outcome is that we will be able to continue to provide online courses to cybersecurity students.

**d. Timeline of implementation**

The cybersecurity degree program needs to be able to utilize this budget resource by Fall 2023 when Palomar Foundation funds are expected to be depleted.

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

Costs are based on student use and are estimated at \$12,000 per year.

**Do you already have a budget for this request?**

No

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

Goal 6: Increase student participation in cybersecurity competitions

**What Strategic Plan 2022 Goal/Objective does this request align with?**

- |   |                              |                              |                              |
|---|------------------------------|------------------------------|------------------------------|
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| <input type="checkbox"/> 1:5            | <input type="checkbox"/> 2:1 | <input type="checkbox"/> 2:2 | <input type="checkbox"/> 2:3 |
| <input checked="" type="checkbox"/> 2:4 | <input type="checkbox"/> 3:1 | <input type="checkbox"/> 3:2 | <input type="checkbox"/> 3:3 |
| <input type="checkbox"/> 3:4            | <input type="checkbox"/> 3:5 | <input type="checkbox"/> 4:1 | <input type="checkbox"/> 4:2 |
| <input type="checkbox"/> 4:3            | <input type="checkbox"/> 5:1 | <input type="checkbox"/> 5:2 |                              |

Refer to the Palomar College [STRATEGIC PLAN 2022](#)

**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)?**

No impacts on facilities/institution.

**Will you accept partial funding?**

☐ Yes ☒ No

## Technology Request 2

**What are you requesting?**

Funding for students to participate in external learning opportunities in the National Cyber League.

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

New Technology

**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)**

Students have reported increased cybersecurity knowledge and skills when completing the NCL training and competitions. Palomar's presence is always increased significantly when Palomar provides the \$35 registration fee for students. Palomar students have placed in the top 20 nationally multiple times in the past 4 years.

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

Students

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

The expected outcomes are increased awareness of cybersecurity at Palomar College and increases in student learning.

**d. Timeline of implementation**

The cybersecurity degree program needs to be able to utilize this budget resource by Fall 2023 as part of its annual operating budget.

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

\$3,500 per year

**Do you already have a budget for this request?**

No

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

Goal 6: Increase student participation in cybersecurity competitions

**What Strategic Plan 2022 Goal/Objective does this request align with?**

- |   |                              |                              |                              |
|---|------------------------------|------------------------------|------------------------------|
| <input type="checkbox"/> 1:1            | <input type="checkbox"/> 1:2 | <input type="checkbox"/> 1:3 | <input type="checkbox"/> 1:4 |
| <input type="checkbox"/> 1:5            | <input type="checkbox"/> 2:1 | <input type="checkbox"/> 2:2 | <input type="checkbox"/> 2:3 |
| <input checked="" type="checkbox"/> 2:4 | <input type="checkbox"/> 3:1 | <input type="checkbox"/> 3:2 | <input type="checkbox"/> 3:3 |
| <input type="checkbox"/> 3:4            | <input type="checkbox"/> 3:5 | <input type="checkbox"/> 4:1 | <input type="checkbox"/> 4:2 |
| <input type="checkbox"/> 4:3            | <input type="checkbox"/> 5:1 | <input type="checkbox"/> 5:2 |                              |

Refer to the Palomar College [STRATEGIC PLAN 2022](#)

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

2

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

No impacts on facilities/institution.

**Will you accept partial funding?**

☒ Yes ☐ No

### Technology Request 3

**What are you requesting?**

New student and instructor computers in labs md 215 and 219.. Each lab costs approximately 45,000 dollars. Partial funding would be helpful to implement a rotation of new labs each year.

**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?**

Students in all of CSIT, primarily our Cybersecurity students and networking. Cybersecurity is a CTE program where students can either transfer or gain employment upon completion.

**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)**

Students in CSIT need current technology equipment to develop current projects. Instructors and students are having challenges meeting the needs of the class due to outdated equipment This includes computers not working, old outdated physical plugs and the need to reboot often to complete a task.

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

The entire CSIT department, both students and faculty. Cybersecurity and networking students will benefit the greatest. In addition, other departments on campus use these labs when available.

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

Students will have greater learning with current technology. The courses offered are CTE and transfer courses, therefore students taking our classes can gain employment upon completion. This includes Cybersecurity and the various degrees and certificates offered.

**d. Timeline of implementation**

1 year, or over a period of several years, one lab per year.

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

45,000 dollars

**Do you already have a budget for this request?**

No

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

Goal 6: Increase student participation in cybersecurity.

**What Strategic Plan 2022 Goal/Objective does this request align with?**

- |   |   |   |                              |
|---|---|---|------------------------------|
| <input checked="" type="checkbox"/> 1:1 | <input checked="" type="checkbox"/> 1:2 | <input checked="" type="checkbox"/> 1:3 | <input type="checkbox"/> 1:4 |
| <input checked="" type="checkbox"/> 1:5 | <input type="checkbox"/> 2:1            | <input type="checkbox"/> 2:2            | <input type="checkbox"/> 2:3 |
| <input type="checkbox"/> 2:4            | <input type="checkbox"/> 3:1            | <input type="checkbox"/> 3:2            | <input type="checkbox"/> 3:3 |
| <input type="checkbox"/> 3:4            | <input type="checkbox"/> 3:5            | <input type="checkbox"/> 4:1            | <input type="checkbox"/> 4:2 |
| <input type="checkbox"/> 4:3            | <input type="checkbox"/> 5:1            | <input type="checkbox"/> 5:2            |                              |

Refer to the Palomar College [STRATEGIC PLAN 2022](#)

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

3

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

no

Will you accept partial funding?

☒ Yes ☐ No

## PART 4: FACILITIES REQUESTS

Do you have resource needs that require physical space or modification to physical space?

☐ Yes ☒ No

*Please include only those facilities requests that could be accomplished within a one-year time frame and/or under a \$75,000 estimated amount. Other facilities needs, such as buildings or remodels, should come through the long-range facilities planning process.*

## 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 ☒ No

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

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

tcanon@palomar.edu