

Entry #: 52 - Mathematics, Science and Engineering**Status:** Submitted**Submitted:** 3/21/2024 2:35 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

Mathematics, Science and Engineering

Department Name

Earth, Space, and Environmental Sciences

Microsoft_List_ID**Discipline Name**

Geography (GEOG)

Department Chair Name

Catherine Jain

Department Chair email

cjain@palomar.edu

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

Wing Cheung- Professor. Stephen Crook - Associate Professor Catherine Jain - Professor

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

The Geography Program encourages the discovery, application, and dissemination of geographical knowledge concerning Earth's physical and human environments in order to promote scientific thought, global citizenship, and environmental stewardship. We offer a variety of certificates and associate's degrees to serve students with diverse academic and career objectives. Our geography courses are part of the AA-T in geography, and also satisfy requirements in CSUSM's environmental studies and liberal studies majors. We also offer certificates in geographic information systems and drone technology, and integrated service learning and internship components into our programs to prepare students for gainful employment.

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

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.

-Geographic Information Systems (CA)
-Advanced Geographic Information Systems (AS, CA)
-Environmental Studies (CA)
-Geography (AA-T)
-Drone Operations (CA)

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)?

3

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

2.2

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

1.94

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

Instructional Assistant IV for two hours per week. Temp ADA for 3 hours per week

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

Student Worker funded by Strong Workforce for 10 hours per week

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.

The increase was 1.1%. We don't feel this is necessarily significant. The value is still well-above the 70% target.

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

Decreased

Was this expected? Please explain.

The decrease was 1.2%. We don't feel this is necessarily significant. The value is still well-above the 90% target.

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

Modality (Online, Face to Face, Hyflex, etc.)

Ethnicity

Age

Modality: What did you find and why do you think differences based on the modality in which courses were offered exists? What do you need to help close the gap? (Please specify the modalities in which you see gaps, i.e. online synchronous or asynchronous, face-to-face, hybrid, hyflex, etc.)

Online students have better success than face-to-face students. Retention is consistently high. We think the differences in success rates relate to types and weighting of assignments in those respective classes, as well as the challenges in upholding the integrity of assessments in an online setting. Faculty need more training and support in addressing cheating in online classes.

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

Older students are more likely to succeed but less likely to stay in the class for the entire semester.

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

Retention is above the institutional standard across all ethnicities. Hispanic students have a lower success rate than other ethnicities. Serious research across the college needs to be performed to understand why these numbers are suboptimal. We sincerely hope that ongoing efforts to assist BIPOC communities and promote DEI will help.

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.

Faculty members report utilizing active learning strategies in their classes to increase both retention and success. We have also hired more tutors and aides to provide support outside of class.

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")



[0. Course SLO Report_ Last Result Date and Action Date for All Active Course Outcomes.xls](#)

12 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 "Progam Completions" and copy and paste five years of completion data for each of your discipline’s degrees and certificates.

2017-18 2018-19 2019-20 2020-21 2021-22
 Geography AA-T 2 4 4 4
 Adv Geographic Info Systems AS 6 3 2 6 5
 Adv Geographic Info Systems CA 11 7 7 7 3
 Drone Operations CA 2 2 1
 Environmental Studies CA 3 2
 Geographic Info Systems CA 7
 Unmanned Aircraft System 8
 Environmental Studies CP 2 4 4
 Geographic Info Systems CP 6 2 9 5

PROGRAM LEARNING OUTCOMES

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

No

If you answered no, please explain.

We have 5 programs, 2 of which are up to date, 2 are not, and 1 (Environmental Studies) is missing the ad hoc report on TracDAT.

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



[GIS.xls](#)
5 KB



[ADT.xls](#)
5 KB



[AGIS.xls](#)
5 KB



[DO.xls](#)
5 KB



Program Review Reflection and Summary

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

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

Our faculty are dedicated to our programs and go above and beyond on a regular basis to make sure students have the information, resources, and support that they need. We also connect students to community partners for internship and service learning opportunities, and represent our discipline at outreach events at local K-12 schools. Institutional support (especially from the Palomar College Foundation), the generosity of our industry partners, and our collaborations with colleagues from other colleges and universities are instrumental to the success of our programs. In addition, our industry and governmental partners (e.g. NSF, Department of Labor, FAA, UCANR) have been extremely generous with their time in support of our programs. They have participated as guest speakers in our courses, partaken in advisory committees that assess and review our technical curriculum, and provided a number of internships, jobs, and service-learning projects for our students.

Our program learning outcomes in our CTE programs are created and updated with input from our Advisory Boards - members of local government and private companies working in these fields. We also stay in communication with our colleagues at CSUSM and SDSU to ensure transfer expectations are met for our non-CTE programs.

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

Recruitment and retention of students in these programs is difficult because we do not receive a list of majors. If we wanted to maintain regular contact with students in order to inform them of opportunities, class rotations, meet-and-greets, internships, etc., we would need to have their contact information.

The lack of sufficient administrative and information services support have also hindered equitable access to required software and hardware for our CTE students. It also makes it incredibly difficult to implement meaningful outreach programs of various scale. We need ADAs, ISAs, and responsive support from information services to ensure the success of our students and to forge sustainable partnerships with community partners.

For example, the industry-standard GIS software that we teach only runs on Windows PCs. As such, students without Windows PC (i.e. Mac users) or powerful computers have no way of working on their assignments or practicing with the software at home. This puts them at a disadvantage relative to their peers who have the resources to acquire the needed hardware. To address this inequity, remote access to the GIS lab (i.e. NS 127) computers was set up to enable disadvantaged students to access the software by remotely connecting into the lab computers from their Macs or less powerful machines. There are two problems with this remote access setup (we will call it remote access 1.0). First, whenever a student remotely access a computer, it locks a computer in the NS 127 lab, thus disrupting GIS classes or stopping anyone who may physically be in NS 127 from using that machine. Second, for unknown reasons, this remote access 1.0 setup which was working fine from Spring 2020 to Spring 2023 suddenly stopped working for Mac users (the students that truly needed this), and Information Services is still unable to resolve this problem despite being notified of it in Sept. 2023. To address the known limitations of the remote access 1.0 setup, a meeting between Information Services, the Chair at the time, and our former Dean was held on 5/26/22 (email of meeting minutes available upon request), where the Director of Information Services said he would work with his team to implement a new remote access solution (i.e. remote access 2.0), which will not lock up computers in NS 127 when an off-site student logs on. There has been no progress on remote access 2.0 (that I am aware of since the May 2022 meeting), and remote access 1.0 is also not working at the moment, thereby leaving roughly 20% of my students without equitable access to the technology they need to succeed in my class.

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?

The diversity of programs within our discipline prepares students for a variety of careers, such as:

- Geographic Information Systems Technologists and Technicians
- Cartographers & Photogrammetrists
- Remote Sensing Technicians
- Water Resource Specialist
- Environmental Restoration Planner

According to data provided by O*NET Online, all of the occupations listed above are growing, some much faster than average. All of these occupations require some kind of postsecondary education, ranging from postsecondary certificate to bachelor's degree. This is why we have been aggressively developing articulation and transfer pathways in order to provide options for students wishing to enter careers that typically require a bachelor's degree. In light of the growing demand for unmanned aircraft system (drone) operators, we have worked with the FAA and the Department of Labor to update the labor market information on O*NET Online. This helps us ensure that these new opportunities created by the drone industry are accurately captured in the O*NET database, which is subsequently used to inform our program planning and curriculum review.

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

- Geography
- Customer and Personal Service
- Computer and Electronics
- Engineering and Technology
- Production and Processing
- English Language
- Mathematics
- Design
- Administration and Management
- Mechanical
- Law and Government

SKILLS

- Reading Comprehension
- Critical Thinking
- Troubleshooting
- Writing
- Complex Problem Solving
- Active Listening

- Active Learning
- Speaking
- Judgement and Decision Making
- Monitoring
- Coordination
- Repairing
- Equipment Maintenance

ABILITIES

- Inductive Reasoning
- Near Vision
- Oral Comprehension
- Deductive Reasoning
- Written Comprehension
- Information Ordering
- Problem Sensitivity

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

Through a combination of lecture, lab exercises, writing and reading assignments, field trips, field courses, service learning projects, and internships, we believe that our courses and programs encourage students to acquire and/or refine the KSA's listed above. For example, our GIS service-learning projects require students to work as a team with an outside entity on their semester projects. These projects reinforce the students' knowledge in Geography, customer service, computer, technology, English language, mathematics, design, and administration and management. They also enhance students' skills in writing, reading comprehension, critical thinking, troubleshooting, speaking, coordination, as well as judgement and decision making. For example, we had students who have completed internships with the FAA, and they were asked to present their output to a national audience. Lastly, depending on the need of the particular service-learning partner, students develop abilities in inductive and deductive reasoning in order to analyze and interpret data for their service-learning clients

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)?

According to data provided by O*NET Online, the labor demand for occupations associated with our discipline will experience at least a 5% growth between 2022 and 2032, except for Remote Sensing Technicians which are projected to have a growth rate of 2 - 4%.

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

Aside from advisory meetings, professional conferences, service-learning partnerships, we also connect with employers to identify potential job opportunities by participating in in-person and virtual conferences. In addition, we maintain a database of internship opportunities, and our internship coordinator reviews each student's resume and attempts to match students with internships that seem to be a good fit. We also maintain a job database for our students that is updated at least once a month.

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

Spring semester, 2023 for the GIS and Drone programs. An interesting topic of discussion was the increased demand for back-end IT skills amongst GIS employees, which includes the installation of sever, backend configuration, and maintenance.

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

Since the occupation profiles from O*NET do not align with those from the region's Center of Excellence (COE), we have reviewed reports on the COE database on careers related to our discipline as well as their annual job openings between from 2012 - 2027. These included Geographic Information Systems, Unmanned Aerial Vehicle Pilots and Recreational Protected Services workers (e.g. rangers, lifeguards, etc). Sub categories covered in the reports included Cartographers and Photogrammetrists, Surveying and Mapping Technicians. GIS Technologists and Technicians, and Remote Sensing Technologists. Each path studied noted a supply gap between graduates in these areas and available positions in the region; while also noting that salaries were at or above living wages. For GIS related positions between 2012 - 2027, there have been approximately 700 regional jobs, a number expected to grow to 758 jobs in the next 5 years with about 93 new jobs annually. For Recreational Protective Services positions between 2012 - 2027, there are expected to be about 509 new hires annually. There have been approximately 1,600 - 2,200 regional jobs. Drone-related job postings in San Diego county show an increase in job postings from 90 in 2012 to 540 in 2021.

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

Align department offerings with those of CSUSM as they expand their geography 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.

We regularly meet with our CSUSM counterparts to streamline transfer pathways and review articulation agreements.

Prior Year PRP Goal 2

Brief Description

Adopt no and low cost textbooks for certain courses in the geography program

Goal Status

Completed

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

This goal has been completed for our courses (GEOG 134, GEOG 136, GEOG 140, GEOG 105, GEOG 100L).

Prior Year PRP Goal 3**Brief Description**

Ensure that students have equitable virtual remote access to the NS 127 lab regardless of their operating system. Students also need access to the GIS software version required by the instructor.

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.

Specific details can be found in the Program Review Reflection and Summary section.

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

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?

Yes

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

Academic Department Assistant

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

Classified

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

Full 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.)

It is nearly impossible to operate on a daily basis without administrative support. We had a 100% ADA for over twenty years, then a 50% ADA for three, and now 0% ADA.

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

Yes? This is a difficult question to interpret, but suffice it to say that ADAs are the reason we function daily.

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

Yes

What funding would support this position?

There is plenty of money in the general fund to support ADAs.

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

When ADAs regularly handle administrative tasks, it frees faculty to tackle the implementation of our program goals.

Educational Vision Plan 2035 Objective

1:4

4:2

4:3

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

We will ask PFF to negotiate additional release time and stipends for faculty members and department chairs that will assume the tasks of the former ADAs.

Staff, CAST, AA request 2

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

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

CAST

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

Full-time split with computer science

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 request is on behalf of the entire Earth, Space & Environmental Sciences department. Our ISA retired. It would be more beneficial for our faculty and students if our new ISA support came in the form of two different people working for two different departments. We'd like one full-time ISA to support the GIS program and the Computer Science department, and another full-time ISA (the replacement of the retiring ISA) to support the remaining disciplines in our department along with the physics/engineering department. Finding a single person with the skills and prior knowledge to serve in all of these varied roles would be extremely difficult. The ISA supporting GIS would be involved with regular and ongoing computer lab set-up and maintenance, software licensing, open lab hours, outreach events, and the planning and implementation of GIS facilities and classes at RBEC. They would also serve as our liaison between Information Services and the GIS program.

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

Yes

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

No

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

ISAs provide instructional support to academic departments. They are critical to our basic operations in serving students.

Educational Vision Plan 2035 Objective

1:4

4:2

4:3

If the position is not moved forward for prioritization, how will you address this need?**Staff, CAST, AA request 3****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

Adjunct faculty/Coordinator of Drone Program

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

Unknown

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

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.)

Our current drone program is run by faculty members from the Geography and Graphic Communications departments who are end-users of drones with no background in aviation or aviation law. To ensure that our program complies with regulatory changes implemented by the Federal Aviation Administration, and to mitigate risks associated with drone operations on campus and off-campus (e.g. work based learning for drone classes), we need an aviation expert who can coordinate the use of drones for instructional and non-instructional purposes. Moreover, this expert will also conduct in-reaching activities to ensure that accurate information about drone regulations and careers are shared with any interested students.

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

Yes, it will ensure that the use of drones for instructional and non-instructional purpose is conducted in a safe and legal manner.

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

Yes

What funding would support this position?

Yes, we can request Strong Workforce grant funds to pilot the first year of this position prior to its institutionalization.

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

This position will help grow enrollment in our drone programs. It will also enable us to forge new internal interdepartmental partnerships as well as new external partnerships with community partners in a safe and responsible manner.

Educational Vision Plan 2035 Objective

1:6	4:3	4:5
4:2	4:4	4:6

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

Faculty members who are not aviation experts will continue to try to keep up with the regulations and the technology to the best of their abilities.

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.

It is crucial that we have sufficient funds in our 500010 accounts, as a majority of those funds are used for renewing our software licenses for our GIS classes.

-Esri ArcGIS license (All GIS classes) payable to FCCC: \$2,500

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

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

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

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

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

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

PART 3: TECHNOLOGY NEEDS

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

Yes

Technology Request

Technology Request 1

What are you requesting?

30 computer monitors for NS-127

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?

Geography and GIS students.

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)

We were informed by Information Services that these are the original monitors installed when the NS building was constructed in 2007.

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?

More enjoyable learning experience for students and increased student success.

d. Timeline of implementation

When classes are not in session.

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

Information Services would be best capable of providing anticipated cost.

Do you already have a budget for this request?

No

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

Serving students aligns with our mission statement and is our ongoing purpose.

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

1:4

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)?

None

Will you accept partial funding?

No

Technology Request 2

What are you requesting?

The ability for GIS students to remotely access a virtual machine for GIS lab completion without having to utilize a computer in NS-127 as a remote desktop.

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)

Currently, if a GIS student wants to work on a project/homework while off-site they must remote into the server on campus via one of the computers in NS-127. This effectively locks up that computer until the student is finished. Information Services has said that they will create a system by which these offcampus students can remote into the server without having to utilize an actual computer on campus to do so. The result will be that students can be operating in their in-person classes in NS-127 at the same time as off-campus students. It also simplifies access for Mac users who are unable to download the software to their computers at home.

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

Students, instructors

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

Ensuring students have equitable access to technologies needed for class.

d. Timeline of implementation

ASAP

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

Information Services would have to provide that information

Do you already have a budget for this request?

No

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

Serving students aligns with our mission statement and is our ongoing purpose.

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

1:4

1:9

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 additional impacts as far as we know. We also ranked this request Highest in our previous year's PRP.

Will you accept partial funding?

No

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

No

PART 5: OTHER ONE-TIME NEEDS

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

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

Yes

Requests**Item 1****What are you requesting?**

ESRI Educational Summit and User Conference

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)**

This request is to cover the registration and travel expenses for two faculty to participate in and attend the ESRI

Education Summit AND ESRI International User Conference in summer, 2024. In particular, faculty members will submit presentations for consideration for the ESRI Education Summit. This is not only an opportunity for faculty to connect with and explore GIS education issues with colleagues from around the country and the world, but it also provides an opportunity for faculty to showcase student work, recruit new students, learn about latest technological and job trends in the GIS industry, and collaborate with industry partners to explore job and internship opportunities for students.

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

Faculty, students, the college as a whole due to the increased visibility of the program

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

The visibility of the Palomar GIS Program will be increased as a result of faculty guest speaking at this event, which may increase program enrollment. New industry partnerships and work based learning activities will be developed for students.

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.).

Mileage (for 2 people, assuming IRS mileage rate of 67 cents/mile (FY23-24) and 40 miles each way from Palomar College to San Diego Convention Center for 7 days): \$750.4

Parking (for 2 people) for 7 days (assuming \$25/day): \$350

Registration (for 2 people): (Covered/comp. by site license)

Meals and incidentals (for 2 people, assuming \$74/day, 7 days): \$1036

Do you already have a budget for this request?

No

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

Enhancing learning opportunities for students aligns with our mission statement and is our ongoing purpose.

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

1:6

4:2

4:3

4:4

If you have multiple requests for facilities 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)?

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?**

Commercial UAV Expo

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)

This request is to cover the registration and travel expenses for two faculty to participate in and attend the Commercial UAV Expo in Fall 2024 in Las Vegas. In particular, faculty members will participate in the University Pavilion and University Roundtable Discussion (a feature of conference that Palomar College faculty started in 2018) at the conference (<https://www.expouav.com/university-pavilion/>). This is not only an opportunity for faculty to connect and explore UAV/Drone education issues (e.g. liability, workforce preparedness, industry collaboration) with colleagues from around the country, but it also provides an opportunity for faculty to showcase student work, learn about latest technological advances and legal changes in the drone industry, and collaborate with industry partners to explore job and internship opportunities for students.

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

Faculty, students, the college as a whole due to the increased visibility of the program

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

The visibility of the Palomar Drone Program will be increased as a result of faculty exhibiting student projects or guest speaking at this event, which may increase program enrollment. New industry partnerships and work based learning activities will be developed for students. Faculty will also gain a greater understanding of regulatory changes and new advances in drone technologies.

d. Timeline of implementation

Fall 2024

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

Mileage (for 2 people, assuming IRS mileage rate of 67 cents/mile (FY23-24) and 300 miles each way from Palomar College to Caesar's Forum, Las Vegas): \$804

Registration (for 2 people): \$1,700

Lodging (for 2 people, assuming \$120/night, 3 nights): \$720

Meals and incidentals (for 2 people, assuming \$74/day, 3 days): \$444

Do you already have a budget for this request?

No

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

Enhancing learning opportunities for students aligns with our mission statement and is our ongoing purpose.

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

1:6

4:2

4:3

4:4

If you have multiple requests for facilities 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)?

None

Will you accept partial funding?

Yes

Budget Category

Travel Expenses for Faculty

Please upload a copy of the quote, if available.

Item 3

What are you requesting?

Supplies for outreach events for GIS and drone tech programs.

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)

We host outreach events at local high schools as well as on our campus to raise awareness of and recruit students into our GIS and drone tech programs. We often have hand-outs at the events.

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

Future students and the college in the form of (hopefully) increased enrollment

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

Increased enrollment and exposure

d. Timeline of implementation

Ongoing

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

\$2,000

Do you already have a budget for this request?

No

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

Enhancing learning opportunities for students aligns with our mission statement and is our ongoing purpose.

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

4:2

If you have multiple requests for facilities 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)?

None

Will you accept partial funding?

Yes

Budget Category

Supplies

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.

cjain@palomar.edu

Feedback and Review

Department Chair

I confirm that the PRP is complete.

No

Department Chair Name

Date