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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

Mathematics, Science and Engineering

Department Name

Biology

Department Chair Name

Richard Albistegui-DuBois

Discipline Name

Biology (BIOL)

Department Chair email

radubois@palomar.edu

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

Richard Albistegui-DuBois, chair

Jim Gilardi, faculty

Beth Pearson, faculty

Diep Vu, ISA

Website address for your discipline<https://www2.palomar.edu/pages/lifescience/>**Discipline Mission statement**

The mission of the Biology department is to provide students with a foundation in biology that will allow them to understand and appreciate the natural world around them, think critically about biological issues, and make informed personal and societal decisions based on this knowledge. In this preparation we are committed to providing hands on opportunities to students so they can apply their knowledge and build written and oral communication skills to express critical thinking. We intend to make students aware of the diverse disciplines within the biological sciences, how these disciplines are interrelated and the problems and opportunities unique to each discipline. We aim to prepare our majors students for transfer to a University program and/or employment in various biology-related areas by educating them in the fundamental concepts, knowledge, and laboratory/field techniques and skills used the life sciences. In addition, the department offers courses deigned to prepare pre-health professional students for a variety of 2-year and 4-year health professional programs.

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

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)?

No

List all degrees and certificates offered within this discipline.

Biology AS-T

Biology Preprofessional (AS, CA)

Biology Pre-Allied health (AS, 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 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)?

13

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

13.4 (may not include 2020)

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

25

List the classified and other permanent staff positions that support this discipline.

Steve King (ISA, 100% time)

Margarita Vega (ISA, 100% time)

Diep Vu (ISA, 100% time)

Christina Fuller (ISA, 100% time)

Terhea Williams (ISA, 100% time)

List additional hourly staff that support this discipline and/or department

During COVID, we have had fewer student hourly workers due to having relatively few in-person labs. In fall 2021, we had only one student worker (federal work-study), since the only labs being taught in-person were microbiology labs. The ISAs from Rancho Bernardo and Fallbrook assisted the main campus ISAs during this term. Under more typical face-to-face teaching, we average about 48 paid student-hours per week, not including about 41 student-hours from federal work-study students.

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?

We have three programs: a Biology AS-T (designed for transfer to CSU), a Biology Preprofessional (designed for transfer to UC) and a Biology Pre-Allied Health (for those planning on pursuing careers in nursing, physical or occupational therapy, and other similar fields).

The SLOs for the Allied Health are on lab safety and scientific communication. Those are key points for students planning on going into health related fields, but I think it would be worth reevaluating them; they seem somewhat limited. The SLOs for Preprofessional are Evolution, Scientific Method, Cell Biology, Biochemistry, and Quantitative Literacy. This program is primarily intended for students pursuing UC transfer. It's possible that basic lab skills would be a reasonable addition or replacement.

The AS-T includes SLOs on Evolution and Scientific Method. These are key points, so I believe they are well suited. However, I would suggest aligning the SLOs for the Preprofessional and AS-T programs, since they are similar in goals.

How do they align with employer and transfer expectations?

Our program SLOs were initially set up to express our own internal goals for these students, but as a result I am not sure that they do align particularly well with employer expectations. Most employers in the biological sciences are looking for credentials higher than an associates' degree, so for two of our programs (AS-T and preprofessional) we are largely oriented around meeting transfer expectations.

In this area, I think our programs are fairly well set. The AS-T curriculum is set by others.

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

These programs have only recently stabilized, and we are still finalizing an assessment plan. We are trying to establish the program SLOs so that they do not require separate assessments, but can instead be assessed based on success rates in the relevant course SLOs. This will require coordination with (and reevaluation of) the course SLOs to ensure that they align in a reasonable way.

Summarize the major findings of your program outcomes assessments.

The Evolution program SLO of the Preprofessional program showed good success rates in related questions for biology classes in daytime sections, but marginal success rates for evening classes. This could be related to a different student population and different resources (evening students usually work during the day and have less study time).

The AS-T program also has an Evolution SLO; in 2018-2019, this found good results, with satisfactory numbers of students answering questions related to evolution in almost all sections. There was a difference in section meeting time; evening students had lower success rates than daytime students. This is similar to the result from the preprofessional program.

Both programs also include a scientific method SLO. The AS-T program showed an overall correct response rate on an exam in Biology 201 of 93%; the same result was used as the SLO assessment for the preprofessional program (since the 201 course is a key course for both).

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.

2016-17: 3 AA (3 AS), 4 certificates

2017-18: 11 AA (9 AS-T, 2 AS), 2 certificates

2018-19: 32 AA (27 AS-T, 5 AS), 7 certificates

2019-20: 42 AA (41 AS-T, 1 AS), 1 certificate

2020-21: 57 AA (53 AS-T, 4 AS), 5 certificates

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

Increased

What factors have influenced your completion trends?

We have seen quite a lot of growth in our completions over the past five years, almost all of which has come from the AS-T degree. Completions have increased by almost 600% in the past four years. This strongly suggests that--of the programs we have offered--the AS-T is by far the most popular option.

It may be worth noting that even these numbers are significantly lower than our overall enrollment. A substantial fraction of our students are intending to pursue nursing or other allied health fields, and until recently we have not had a program which such students would enroll in. We have recently revised our pre-allied health program in such a way that it may be able to capture some of these students, but generally these students do not need to be in a degree program; they are only trying to obtain the prerequisite requirements for nursing school. These students are unlikely to show completions in our programs.

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 AS-T is experiencing increasing success as reflected by a rapid increase in completions. This seems to be driven largely by instructors in BIOL 200 and 201 reminding students to file for completions.

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

A substantial proportion of the students in our classes are pre-nursing students. It might seem like those students would be good candidates for the pre-Allied Health program, but those students often do not complete that program. In looking at the program curriculum, it includes several courses (NUTR 165/185 and CHEM 104) which are not on the Nursing requirements, and lacks one (MATH 56+) which is. Perhaps if we adjusted the program to match the nursing recommendations, we could make it easier for students to complete at least the certificate in pre-Allied Health prior to entering the nursing program, and use it as a guide to help students prepare for nursing.

The preprofessional program (designed for UC transfer) is also not showing great numbers of completions. This may be because few students at Palomar are planning for UC transfer in biology; it may also be because it is not clear that the AS-T is designed specifically for the CSU system, and students believe it is a suitable transfer degree overall. While it certainly isn't bad, it does not have all of the requirements for UC transfer. We might consider renaming the degree and making sure counseling is aware of the difference.

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?

70.0%

Why did you choose this standard?

We decided to go with the college standard.

What is your stretch goal for course success rates?

75.0%

How did you decide upon the goal?

We would like to see more of our students meet these goals, and 3/4 seems like a good place to set our sights right now.

COURSE STUDENT LEARNING OUTCOMES (SLOs)

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

I will focus on three groups of courses here. Biology 200 and 201 are key courses for the AS-T and Preprofessional programs. Biology 210, 211, and 212 are key courses for the Allied health program. Biology 100 is the main general education biology course.

Overall summary: It seems like most SLOs are being met, with some areas for improvement. Scientific Method is especially consistently good.

BIOL 200: Recent assessment found satisfactory completion of the Evolution SLO, with evening sections showing poorer completion. The results were similar or slightly better than the previous assessment. The scientific method SLO also showed satisfactory completion rates.

BIOL 201: Diversity of Life showed satisfactory completion of the SLO. While this assessment was significantly better than the previous one in 2019, it may be that this was due to class adaptations to COVID. Scientific Process showed very good results. Recent assessments have shown a distinct upward trend in these results. Ecology showed satisfactory results.

Anatomy and Physiology showed satisfactory results, consistent with previous assessments.

BIOL 210: Five SLOs (Histology, Body organization, Gross anatomy, System function, and Evolutionary relationships) Histology: Slightly below standard (right around 70% of students overall meeting the SLO), but consistent with previous terms.

Body Organization: Satisfactory results

Gross anatomy: Good results

System Function: Good results

Evolutionary Relationships: Satisfactory but borderline

BIOL 211: Four SLOs (Homeostasis, Scientific Method, Scientific Communication, Content Knowledge)

Homeostasis: Marginal or slightly below standard (66-70% of students meeting SLO)

Scientific Method: Good results

Content Knowledge: Marginal overall, with significant variation between assessed systems.

BIOL 212: Three SLOs (Lab skill, Comprehensive knowledge, and Microbiology experiments)

Lab Skill: Difficult to assess due to COVID conditions, but generally good results, with notably better results for full-time compared to part-time faculty.

Comprehensive knowledge: About 60% of students earned As and Bs on lecture exams. 24% earned Cs, and 16% failed. Acceptable.

Microbiology Experiments: Difficult to assess during COVID, but generally acceptable. It was noted that analysis and conclusions from data had lower-than-typical success rates, and comprehension of experiental goals was lower still.

BIOL 100: Four SLOS (Scientific Method, Genotype, Cell Function, and Evolution/Ecology)

Scientific Method: Good results (pre-post test showed 56% pretest, 72% posttest), consistent with previous years.

Genotype: Acceptable, but marginal.

Cell function: Unable to usefully assess due to problems with agreement on assessment technique

Evolution/Ecology: Not quite meeting the standard; 66% average score on related test questions, only 40% of students meeting a 70% threshold.

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.

Yes

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

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CAREER AND LABOR MARKET DATA

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

No

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.

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?

Biology encompasses a diverse range of disciplines and careers. The majority of our biology majors aim for medical careers, biomedical research, biotechnology or careers related to zoology, botany or ecology. Unfortunately, there few job opportunities for biology majors with an AS degree, outside of some paying and often temporary positions. Most biology majors realize they need at least a baccalaureate degree, and most likely a graduate or professional degree to achieve their professional goal. So our Biology program for majors is aimed at preparing these students for successful transfer to a four year college, and not for entering a career after completing courses at Palomar College.

For the pre-allied health program, the most natural careers are nursing (levels from CNA to nurse practitioner), physical therapy, occupational therapy, dental assistants and hygienists, and medical school. Most of these are existing careers in allied health. While there do seem to be some emerging careers in the O*NET database associated with allied health, they are more technician/vocational, and do not seem particularly well aligned with our pre-allied health program. Given the large demand for the allied health classes (e.g. BIOL 210, 211, 212), we do not see a need to realign our program to accommodate these emerging careers.

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

Skills: The most commonly required skills for biology majors include writing and oral communication skills, organizational skills, critical thinking skills, laboratory and field research skills, quantitative skills, basic computer skills (e.g. spreadsheet and databases) and applying scientific methodologies to solve problems..

Knowledge: Basic knowledge of biology, including knowledge of organizational levels, characteristics of life; chemistry, biochemistry, metabolism, genetics, evolution, biodiversity and modern biological laboratory and field research technique. Many careers in biology are highly interdisciplinary, so students benefit by having a broad range of knowledge outside of biology, including but not limited to computer science, math, chemistry, physics and government regulations.

Abilities: Apply biological knowledge and scientific methodologies to answer questions, collect, analyze and present data orally and in written form, apply critical thinking and quantitative skills to solve problems, and to be an independent learner and to work both independently and collaboratively.

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

For skills and abilities, in all of our courses we require students to write, to think critically, to apply scientific methodologies, to develop laboratory skills, to collect and analyze data, to use quantitative methods, to work alone and in groups and to demonstrate an understanding and application of biological information. For knowledge, the CORs for most of our courses require a basic knowledge of biology, including knowledge of organizational levels, characteristics of life, chemistry, biochemistry, metabolism, genetics, evolution, biodiversity and basic biological laboratory technique. Hopefully, by continuing to work on SLOs we can better assess how successful students are at acquiring these KSAs.

Reflecting on these KSAs we realize we should ensure each instructor in our Department is consistently aware of and focused on developing these KSAs. Not only would greater communication among Biology instructors increase the consistency of developing these KSAs in each course, it would allow for greater sharing of ideas and strategies to better develop these KSAs in our students.

Computers and Electronics does appear as a KSA for these professions. Our programs do not have an explicit requirement for any programming or technical classes, though our lab work involves the use of computers for data analysis and report preparation. While in theory it might be good to include such a requirement, we cannot do so for the AS-T program (the curriculum is dictated elsewhere) and do not have enough room in terms of required units for the preprofessional program.

One of our main goals in stressing these KSAs is to successfully prepare students for transfer to a university program or a professional program,

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?

No

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

We have not done a lot of explicit outreach for our programs. The value of nursing jobs is already widely known, and no additional outreach seems necessary. For other biological sciences jobs (which mostly involve transferring), there might be some value in community outreach--to schools, for example, to work with science teachers in elementary or high schools, or to the homeschooling community, to share what we do in our biology majors courses.

Some of our courses require local field trips (e.g. San Diego Zoo, Salk Institute, the Scripps Research institute). One problem we face in getting students direct experiences outside of the classroom is the large number of students we have to work with and the ability of local institutions to accommodate that number of students.

We have worked closely with CSUSM and UCSD for our majors biology courses to share resources and grants. Many of our students have received lab shadowing opportunities at CSUSM and UCSD, but again, these experiences are limited relative to the large number of our students. But that is not an excuse to not keep trying to extend these types of experiences for students.

To really learn science, one has to do science. For this reason we strongly encourage students to apply for summer internships that are offered by hundreds of colleges each summer. And we share with these students how to apply and when to apply for these programs. We should ensure all of our instructors are knowledgeable of these opportunities and share these opportunities with their students.

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

Find a way to capture completions for pre-Nursing students

Is this a new or existing goal?

New

How will you complete this goal?

We have a huge number of pre-Nursing students taking our classes, but no way to capture completions for these students. This was the goal of our pre-Allied Health program, but it does not seem to be succeeding. On analysis, I have found that the requirements of that program include a NUTR course which is required by few allied health programs, and does not include a math requirement (which is required by most). By aligning these program requirements, we may be able to have students planning on nursing complete the AS or certificate version of this program without having to do anything beyond what they are already doing.

Outcome(s) expected (qualitative/quantitative)

Increased program completions, potentially substantial (dozens). This will require at least one curriculum cycle, so it will not show results for at least two years.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This goal is clearly aligned with the guided pathways goals of establishing useful and understandable pathways for students.

Expected Goal Completion Date

6/30/2023

Goal 2

Brief Description

Reevaluate course and program SLOs

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

The department will meet to discuss our program SLOs and how we can align them between programs and with course SLOs to make assessment useful and possible. We can also direct faculty in considering whether their course SLOs actually assess the desired outcomes for their courses, and are made in a way which makes them useful for reflection and improvement. This will involve making the course SLOs integral to the course curriculum so that they do not represent a bureaucratic obstacle.

Outcome(s) expected (qualitative/quantitative)

Improved alignment of program SLOs with course SLOs, enabling more efficient assessment. More meaningful use of course SLOs

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This aligns with the college mission statement Objective 1.2: Encourage and promote innovative instructional and student support practices and strategies focused on strengthening teaching and learning.

Expected Goal Completion Date

5/30/2021

Goal 3**Brief Description**

Align programs with local institutional requirements

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

We will consider whether the Preprofessional program properly aligns with UC requirements, and that counseling understands when to direct students to the AS-T versus the preprofessional program. We will ensure that the Allied health program requirements reflect the likely transfer requirements of nursing and allied health programs at local colleges.

Outcome(s) expected (qualitative/quantitative)

Improved completions in preprofessional and allied health programs.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This clearly aligns with the goals of having programs which are useful and effective for students.

Expected Goal Completion Date

5/30/2021

Goal 4

Brief Description

Increase and improve course offerings at north and south centers

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

In addition to our previous goal of ensuring quality education at the north and south centers, we will continue working with the dean and administration to determine what emphasis the south center should use for classes (e.g. whether to include BIOL 200 and 201 to enable completion of the AS-T and Preprofessional programs at Rancho Bernardo). If the college decides to pursue this, it will require substantial resources to set up a BIOL 200 lab at the site. Ongoing BIOL 210 instruction at Rancho Bernardo will require a cadaver lab. These discussions will likely be ongoing for at least a year, so we will set completion as decisions being made.

Outcome(s) expected (qualitative/quantitative)

Improved completions and enrollments at north and south centers. depending on decisions from above, either the creation of facilities to enable biology majors classes at south center, or improved anatomy facilities at south center (or both!)

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This aligns with the College's goal of providing opportunities for completions of majors entirely at the north and south centers.

Expected Goal Completion Date

5/30/2023

Goal 5

Brief Description

Modernize teaching technology

Is this a new or existing goal?

Existing

Goal Status

Ongoing

How will you complete this goal?

While we have been given approval to buy new sets of microscopes for many of our labs (thank you!), we do still need some microscopes capable of connecting to the overhead projectors for teaching histology in anatomy classes.

Outcome(s) expected (qualitative/quantitative)

Improved student performance on Histology SLO for BIOL 210

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?

This aligns with the pursuit of excellence in teaching

Expected Goal Completion Date

5/30/2021

RESOURCES

REQUEST FOR ADDITIONAL CLASSIFIED, CAST, AA

Staff, CAST, AA request 1

Title of position

ADA

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

The Biology department lost its ADA to retirement in 2020. Since that time, the ADAs for Mathematics and Computer Sciences have both been assisting our department with administrative duties. While they have been doing a good job, they have their hands full with their own departments already, and it is difficult for them to add our department to their duties. In addition, our classes have multiple specialized scheduling requirements with regards to classes with labs, multiple meeting patterns, and so on, which makes having someone with experience in scheduling our department critical for efficient work. Right now, the department has to do substantially more work than typical in coordinating scheduling work between two ADAs who both have other duties, and whose familiarity with our department's needs is limited; this results in errors and corrections needing to be made, which adds further to workload for everyone involved. A dedicated ADA would be able to learn our department's specific needs and patterns and help us with finding ways to staff and schedule ever-increasing numbers of classes in limited space.

This would help with strategic plan objectives 1.2 (reducing barriers to enrollment by providing a person who can help students navigate this department), 2.1 (helping the department organize and present its program offerings), 3.5 (improved communication between faculty and staff), and 5.1 (help develop efficient onboarding).

While we would love a full-time ADA, a part-time ADA dedicated to the department and persisting over time would be a great help.

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

Yes. Given that we do not currently have an ADA, hiring a dedicated departmental ADA would increase efficiency by allowing the math and CSIS ADAs to focus on their own departments. However, I suspect that this question is more about whether the college could save money by doing this; the answer is probably "no". The improvements from this hire would be in quality of life and reduction of stress and workload, but it would probably not save any money.

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.

An ADA will help with most aspects of this plan by coordinating departmental functions. As "the person who knows where everything is", the ADA is the key and heart of the department.

Strategic Plan 2022 Objective

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

If the position is not approved, what is your plan?

We will continue as we are. The current situation is not catastrophically failing, but it is placing added stress on multiple key employees, and causing increased errors and lower efficiency in critical administrative work.

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?

Yes

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?

Yes

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.

Our need for student hourly employees has been much reduced during COVID, but it will increase significantly once we return to more in-person labs. Right now the ISAs at the north and south centers assist with microbiology prep on main campus; this will no longer be possible starting in spring, as more in-person labs are scheduled.

If we decided to begin offering BIOL 200 and 201 at Rancho Bernardo, we would need an increase to the supply budget at Rancho Bernardo to cover supplies for DNA sequencing and other labs. Exactly how much we would have to determine, but it would most likely be \$4000-5000/year.

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?

Yes

Facilities Requests

Facility Request 1

What are you requesting?

Cadaver storage room at Rancho Bernardo

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

Goals 1 and 4

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

2:1

2:4

5:1

Provide a detailed description of the facilities item or space requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

Cadavers are used in Human Anatomy (Biology 210). Because there is not a cadaver storage room at the SEC we have been unable to teach at sec using cadavers. Without a cadaver we are forced in Biology 210 to use cats for dissection. Cats are significantly more expensive than cadavers and are a relatively poor dissection substitute in a Human Anatomy course. The reason cats are more expensive than cadavers is because we need about 16 cats for each of our 16 sections of Bio 210 each semester. One cadaver serves about 10 sections of Biology 210 for several years. In addition, cats for dissection are getting more difficult to acquire and the price has increased significantly over the years.

The cadaver storage room at SEC was approved last Spring 2020 and Facilities was working on the plan to remodel the storage room next to the Bio 210 classroom (SEC-318) into a cadaver storage room, however these plans were suspended when COVID-19 caused the campus to close down. So this request is more of a reminder to Facilities to proceed with this plan once COVID-19 restrictions are lifted and they have permission to work in the SEC building.

Is there an associated cost with this request?

Yes

Will you fund the request through your budget or other sources?

Existing Budget, Facilities should know the account that was approved to support the remodel of the storage room next to SEC-318.

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

Facilities will have to make some changes to the HVAC system in the storage room. Facilities is aware of the changes that need to be made to the cadaver storage room.

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?

Equipment for Bio 200 at Rancho Bernardo

Estimated Amount of Request.

\$25,000.00

Will you accept partial funding?

No

Budget Category

Non-technology Equipment (acct 600010 and per unit cost is >\$500)

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

Goal 4

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

2:1

2:4

5:1

Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

If the college decides to offer BIOL 200 at Rancho Bernardo, we will need some equipment for the labs which are part of the class curriculum. This would include items such as:

Spectrophotometers (~\$1500 each, need 8)

A thermocycler (~\$5000)

An incubator (~\$1500)

High-speed centrifuge (~\$2500)

If the class becomes permanent: NanoDrop (~\$15,000)

These total about \$21,000, and there would be additional equipment. Total cost would be at least \$25,000, and if we decided to offer the class long-term, another \$15,000 for the NanoDrop (for a while we can share the one we have at San Marcos). This is not including a number of items which we either already have at Rancho Bernardo or could share between RB and San Marcos.

Please upload a copy of the quote, if available.

Item 2

What are you requesting?

Teaching microscopes for BIOL 210 (Anatomy)

Estimated Amount of Request.

\$17,300.00

Will you accept partial funding?

No

Budget Category

Non-technology Equipment (acct 600010 and per unit cost is >\$500)

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

Goal 5

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

1:3

Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

Teaching microscopes and cameras for Anatomy (Biology 210) to be used NS-324, NS-316 and SEC- 31. These are needed to teach histology, so instructors can project microscopic anatomical structures to students and to photograph these images digitally for students to have access to in preparation for examinations.

Please upload a copy of the quote, if available.

Item 3

What are you requesting?

-20C Mini-freezer for Microbiology

Estimated Amount of Request.

\$1,200.00

Will you accept partial funding?

No

Budget Category

Non-technology Equipment (acct 600010 and per unit cost is >\$500)

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

Goal 5

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

1:3

Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

Microbiology needs a replacement -20C freezer at San Marcos. The existing one has vanished; when we returned from quarantine, it was gone and nobody knows what happened to it. The microbiology class has been using the physiology freezer temporarily.

The listed price is for a high-quality scientific one, but it might be possible to get a food-grade freezer for less.

Please upload a copy of the quote, if available.

Item 4

What are you requesting?

Deli refrigerator for Microbiology

Estimated Amount of Request.

\$3,700.00

Will you accept partial funding?

No

Budget Category

Non-technology Equipment (acct 600010 and per unit cost is >\$500)

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

Goal 5

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

1:3

Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.

As we have added microbiology sections, we have run into the need to prepare more materials requiring refrigerated storage and student bacterial cultures. The current refrigerators are packed full. Adding an additional refrigerator will free up some space in smaller refrigerators which can be used by students in other biology classes.

This is part of expanding our offerings, serving more students, and making sure that we have the resources to ensure that we can offer good lab experiences.

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.

radubois@palomar.edu