



Program Review & Planning (PRP)

PART 1: BASIC PROGRAM INFORMATION

Program Review is a self-study of your discipline. It is about documenting the plans you have for improving student success in your program and sharing that information with the college community. Through the review of and reflection on key program elements, program review and planning identifies program strengths as well as strategies necessary to improve the academic discipline, program, or service to support student success. With that in mind, please answer the following questions:

Discipline Name:	Biology
Department Name:	Biology
Division Name:	MNHS

Please list all participants in this Program Review:

Name	Position
Elizabeth Pearson	Department Chair and Professor of Biology
Krystal Rypien & Lesley Williams	Professors of Biology (Microbiology)
Gene Gushansky & Carey Carpenter	Professors of Biology (Anatomy)
Sara Krause & Wendy Gideon	Professors of Biology
Richard Albistegui Dubois	Professors of Biology (Physiology)
Kim Velazquez, Jim Gilardi & Mike Deal	Professors of Biology
Matt Doherty & Cory Lindsay	Professors of Biology (Anatomy & Physiology)

Number of Full Time faculty	13	Number of Part Time Faculty	32
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Please list the Classified positions (and their FTE) that support this discipline:

4 FTE: 3 ISAs (Steve King, Margarita Vegas & Diep Vu) and 1 ADA (Karen Buehler)

What additional hourly staff support this discipline and/or department:

Student hourly

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

The mission of the Biology department is to provide students with a foundation in biology that will allow them to understand 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 apply their knowledge and to use 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 of the life sciences. In addition the department offers courses designed to prepare pre-health professional students for a variety of 2-year and 4- year health professional programs.

List all degrees and certificates (e.g., AA, AT, Certificates) offered within this discipline:

AST Biology; AS Biology: General; AS Biology: Pre-Professional

PART 2: Program Assessment

The first step in completing your self-study is to examine and assess your discipline/program. To accomplish this step, complete the Following Sections:

Section 1: Program Data and Enrollment

Section 2: Course Success Rates

Section 3: Institution and Program Set Course Success Rate Standards

Section 4: Completions

Section 5: Labor Market Information (CTE programs only)

Section 6: Additional Qualitative Information

Section 7: Curriculum, Scheduling, and Student Learning Outcomes

SECTION 1: PROGRAM DATA & ENROLLMENT

Click on the following link to examine enrollment, efficiency, and instructional FTEF trends for your discipline. Log-in using your network username and password.

<https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Productivity%20Metric%20Summary.aspx>

A. To access your discipline data, select your discipline from the drop down menu.

B. To access course level data (e.g., COMM 100 or BIOL 100) use the drop down menus to select “discipline” and “catalog number”.

Use the data to answer the following questions.

1. Discipline Enrollment

Discipline Enrollment (over last 5 years)	Increased	X	Steady/No Change		Decreased	X
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Reflect on your enrollment trends over the past five years. Was the trend expected? What factors have influenced enrollment?

Our enrollments have both increased and decreased over the past five years. In 2011-2012 we served 3,342 students which increased to 4,292 by 2015-2016 but dropped to 3,970 in 2016-2017. The increase in enrollment can be attributed to adding high demand classes but the decrease this past year was unexpected. From what I understand, this is a national trend probably attributed to increased employment across the country.

2. Course-Level Enrollment and Fill Rates

If there are particular courses that are not getting sufficient enrollment, are regularly cancelled due to low enrollment, or are not scheduled, discuss how your discipline is addressing this. For example, are there courses that should be deactivated?

Our department is lucky that our courses are high-demand courses which fill (99%-106%) early and predictably. We have added sections to meet demand and have noticed fewer crashers on day one indicating that we are offering a reasonable number of sections to meet the demand. We have occasionally cancelled a class due to low enrollment which can usually be

explained by the class being offered at an undesirable time. This past year our fill rate has dropped to 97% which we believe is also a reflection that we are offering an adequate number of classes.

3. WSCH/FTEF

Although the college efficiency goal is 525 WSCH/FTEF or 35 FTES/FTEF, there are many factors that affect efficiency (i.e. seat count / facilities / accreditation restrictions).

Discipline Efficiency Trend	Increased		Steady/No Change	X	Decreased	
Discipline Efficiency:	Above 525 (35 FTES/FTEF)	X	At 525 (35 FTES/FTEF)		Below 525 (35 FTES/FTEF)	

Reflect on your enrollment trends over the past five years. Was the trend expected? What factors have influenced enrollment?

We often offer double lecture sections (60) with associated labs of 30. This has allowed better efficiency while still having the opportunity to connect with individual students in the laboratory setting. That being said, much discussion in our department has been had about this not being an equivalent scenario for online classes. Our department was impacted when class maximums were set for online classes based on course maximums for in-class situations. The 60 person maximum only works if the lecture is in-person and there is a 30 person associated lab component. The union is working to make adjustments to these online course maximums.

4. Instructional FTEF:

Reflect on FTEF (Full-time, Part-time, and Overload) over the past 5 years. Discuss any noted challenges related to instructional staff resources.

We have been lucky to hire faculty over the past five years and have increased our FTEF from 6.67-9.2. But when compared to FT faculty from 20 years ago when the chair of this department was hired (there were 13 FT faculty), it is still hard to believe that the two most recent hires finally bring our department back to 13 despite enrollments doubling over the past 20 years. The challenge is hiring qualified Part-time Faculty. The best adjuncts get full time positions elsewhere and we are constantly hiring and training new faculty, this sometimes occurs at the expense of the students experience.

SECTION 2: COURSE SUCCESS RATES

Click on the following link to review the course success rates (% A, B, C, or Credit) for your discipline. Examine the following course success rates.

- A. On-Campus Course Success Rates**
- B. Online Course Success Rates**
- C. Course Success Rates by gender, age, ethnicity, and special population (use the filter buttons at the top of the worksheet to disaggregate success rates by demographic variables)**
- D. Course Success Rates by class location (Escondido, CPPEN, etc.)**

<https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Success%20and%20Retention.aspx>

1. Overall Success Rate:

Reflect on your discipline’s on-campus, online, and by location (ESC, CPPN, etc.) course success rates over the past five years. Compare your success rates to the overall college success rates. Are the rates where you would expect them to be? Have there been changes over time?

College success rates have fluctuated but have trended down by 3 % over the past six years ending at 71%. Our success rates have similarly fluctuated and trended down by 3% but ending at 66%. We did not detect any differences among

locations unless we considered our distance education classes where success rates were markedly lower. Our distance education offerings are few and the faculty teaching them has changed over time which is the likely cause for the large scale differences in success rates from 32-70%. As a department we need to look closely at our distance education courses and ways we can establish some consistency and improve success.

2. Course Success Rates by gender, age, ethnicity, and special population:

Reflect on your discipline’s success rates by the given demographic variables (gender, age, ethnicity, special population). Are there large differences between groups? If so, why do you think this is happening and what might you consider in the future to address the needs of these groups?

Note: Institutionally, the College has a goal to close the performance gap of disproportionately impacted students, including African-American, Hispanic/Latino, veterans, foster youth, and students with disabilities. You can access the Student Equity Plan on the SSEC website <https://www2.palomar.edu/pages/ssec/>

Gender	We could detect no real trends associated with gender in our courses.
Age	We noted no real trends in success in the 19 and under group, 20-24 group or the 25-49 group; rates increased and decreased as much as 9% but no overall trends were clear. We had no data for students 50 and older. It is interesting to note that enrollment for students 50 and older have dropped by 40% college wide and in our division, but as a department we have not attracted those students in recordable numbers.
Ethnicity	Success rates for hispanic students in Biology are consistently lower than the discipline average from 4 to 10%. We understand that it is a college goal to address this achievement gap and this department is committed to participating in any way we can. We are especially interested after noting that while our department enrollments have increased by 22%, our hispanic enrollments are up by 39% so we are extra motivated. One aspect of our class structure that works in our favor is that we have a lot of one on one time in lab where most of us get to know our students by name. As I understand, from a great conversation with Kelly Falcone, this might be the most effective way to close the gap, so I will be emphasizing this in department meetings and training new faculty.
Special Population (examples- veteran, foster youth, etc)	We looked at success rates for veterans, foster youth, GPA, disability, time of day, etc. and found no notable trends. The only consistent association we could find was a difference between students receiving financial aid and those not receiving it. Those receiving financial aid were 3-7% less successful.

3. Disaggregated Course Success Rates (Select at least two other variables):

Disciplines/programs find it useful to examine course success rates by other types of variables (e.g., time of day, level of course (basic skills, AA, Transfer). Examine course success rates disaggregated by at least two other variables and reflect on your findings.

The department chair spent HOURS (seriously, hours and hours) looking at variables for individual courses and could not find any meaningful trends to address other than by ethnicity and economic disadvantage which are discussed above.

SECTION 3: INSTITUTION AND PROGRAM SET COURSE SUCCESS RATE STANDARDS

ACCJC requires that colleges establish institutional and program level standards in the area of course success rates. These standards represent the lowest success rate (% A, B, C, or Credit) deemed acceptable by the College. 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.

Discipline Level Course Success Rate:

- A. The College’s institutional standard for course success rate is 70%.

- B. Review your discipline’s course success rates over the past five years.**
- C. Identify the minimum acceptable course success rate for your discipline. When setting this rate, consider the level of curriculum (e.g., basic skills, AA, Transfer) and other factors that influence success rates within your area. If you set your discipline standard below the College’s standard, please explain why.**

Standard for Discipline Course Success Rate:	70%
Why?	
We feel that 70% is a reasonable success rate based on the college institutional standard as well as other academic institutions.	

SECTION 4: COMPLETIONS

Click on the following link to review the completions for your discipline.
<https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Degrees%20and%20Certifications.aspx>

- A. To access your discipline data, go to the "Awards" tab at the bottom of the page and click on your discipline.**
- B. To access your program level completions, click on the tab titled "Awards by Academic Plan" at the bottom of the page and then click on your discipline.**

1. Overall Completions:

Reflect on your discipline’s overall completions over the past five years. Are the completions where you would expect or want them to be? What is influencing the number of completions?

Completions in degrees and certificates in our discipline are not common goals amongst our students and our numbers (4-5/year) reflect this. We do not view this as a problem but expect this change to change with the new AST in Biology beginning this Fall. We will be encouraging our students to follow this curriculum path. In addition, our faculty have been working with Dean Kailikole on developing degree pathways and cohorts to encourage students to follow a path to the AST degree completion.

2. Specific Degree/Certificate Completions:

Do you have degrees or certificates with few or no completions? If so, what factors influence completions within specific programs? If you have degrees/certificates with few completions, are they still viable? What can be done to help students complete programs within your discipline?

Very few students complete degrees in the Biological Sciences (1 or 2 each year). We believe this is because students in our discipline are focused on transferring to four year institutions and do not see a benefit to completing Palomar graduation requirements. We intend to encourage our students to take advantage of our new AST and hope to see more completions in the future.

SECTION 5: LABOR MARKET INFORMATION (CTE PROGRAMS ONLY)

If you have CTE programs in your discipline, refer to the following link to obtain relevant labor market data. This data can be found on the Centers for Excellence website at <http://www.coeccc.net/Supply-and-Demand.aspx>

Example of Labor Market Information:

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SOC	Description	Counties	2014 Occupations	2017 Occupations	Change	% Change	Openings	Annual Openings	10% Hourly Earnings	Med Hourly Earnings	Entry Level Education (Typical)
13-2011	Accountants and Auditors	Imperial	341	361	20	5.8%	57	19	\$17.70	\$26.09	Bachelor's degree
13-2011	Accountants and Auditors	San Diego	12,554	13,735	1,181	9.4%	2,388	796	\$20.88	\$32.92	Bachelor's degree

1. What is the regional three-year projected occupational growth for your program(s)?

N/A

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

N/A

3. If your program has other program-level outcomes assessments (beyond SLOs and labor market data), including any external mandated regulatory items, discuss how that information has been used to make program changes and/or improvements.

N/A

4. When was your program's last advisory meeting held? What significant information was learned from that meeting? (CTE programs are required by Title 5 to conduct a minimum of 1 advisory meeting each year)

N/A

SECTION 6: ADDITIONAL QUALITATIVE INFORMATION

Not all information important to reviewing your program is quantitative or included in the section above.

Describe other data and/or information that you have considered as part of the assessment of your program. (Examples of other data and factors include, but are not limited to: external accreditation requirements, State and Federal legislation, four-year institution directions, technology, equipment, budget, professional development opportunities).

SECTION 7: CURRICULUM, SCHEDULING, AND STUDENT LEARNING OUTCOMES

1. SLO Assessment Results:

How have SLO assessment results impacted your planning over the last three years? Consider curriculum, teaching methodology, scheduling, department discussion (FT & PT faculty included) resources, etc. Refer to the SLO/PRP report – <https://outcomes.palomar.edu:8443/tracdat/>

Microbiology: We re-assessed using the Metabolism SLO designed by Williams & Rypien in Spring 2016. We collected data for 73 students across 3 sections of MICR200 and 2 instructors (both of whom adopted the use of a new textbook this semester, in part to address results from previous SLO assessments). The results of the assessment are similar to our previous assessment (in Fall 2015) - across all lab sections surveyed, students correctly answered only 39% of questions.

Although the overall results are similar to our assessment prior to adopting a new textbook, a more detailed analysis does reveal some promising trends. The SLO assessment questions most directly addressed by the Blankenship-Williams (2015) textbook are

#1, 6 and 10. When comparing sections taught by Williams in Fall 2015 and Spring 2016 (pre- and post-adoption of new textbook), students show a dramatic improvement for questions 1 and 6 (#1: 33% correct to 58%, #6: 54% to 83%). Question #10 does not show significant improvement, however this was likely due to a difference in terminology used by the Blankenship-Williams textbook and by the wording in question #10 (a mistake which will be remedied if this assessment is used again in the future).

Sections taught by Rypien do not show a similar improvement; however this may be the result of the timing of SLO assessment in Spring 2016 (administered later than planned, on the same day as a final exam. Rypien observed that many students seemed to have just guessed on the SLO assessment, possibly due to mental fatigue), or due to less instructor experience with the new textbook (Williams was the author of the book, and undoubtedly did a better job of successfully integrating the new textbook into her class).

So, for topics that were explicitly addressed in the Blankenship-Williams textbook (#1 and #6), students did show a significant improvement, suggesting that the adoption of this textbook for all Microbiology sections will help address student success, learning and retention of key concepts in Microbiology. We plan to continue using the Blankenship-Williams textbook, and refining how to best integrate this into existing course material, and hope to see further increases in student success when we assess this SLO in the future.

We plan to re-assess this SLO on its typical cycle in Spring 2019. All instructors will be adding Blankenship-Williams (2015) textbook to their sections, which we hope will continue to improve student learning gains..

Biology: By beginning the semester with the pre-assessment, instructors have gained greater insight into what the students strengths and weaknesses in the material are. For example, a couple of instructors have expressed some surprise that most students did quite well on a few of the questions related to scientific method before we even covered the material in the class. As instructors, we are better able to target our audience when we have a better understanding of the knowledge our students have when arriving in our class. By comparing pre and post results, each instructor is able to see which areas they had the biggest impact on their student's learning and which areas they had smaller impacts. As we all strive to improve our teaching, we are using this information as another data point to embrace our strengths and improve in the areas where we are making less of an impact. The SLOs have also impacted our curriculum in the course. Although we do not have the data to determine the effects of our changes, we considered the SLOs when revising our lab manual. Specifically, we strengthened the focus in the lab manual on the scientific method to help students gain a stronger, clearer knowledge of the ideas.

2. SLO Assessment Methods:

How effective are your current methods/procedures for assessing course and program student learning outcomes? What is working well and how do you know? What needs improvement and why? Refer to the SLO/PRP report – <https://outcomes.palomar.edu:8443/tracdat/>

Microbiology: Because there are only four instructors teaching microbiology and three of those four are full time faculty, it has been fairly easy to coordinate SLO assessments and to discuss outcomes. There is still some variability across instructors in delivery of information and assessment timing, but that is hard to equalize without impacting someone's academic freedom and individual style.

Biology: Our current method of conducting a pre and post assessment is working very well. We are currently using google forms for the assessment which allows to quickly have results of pre-assessments so that instructors can understand where their students started. The combination of pre and post allows us to scientifically assess the change in student knowledge and have a much clearer idea of what sort of impact our teaching is having on the students. We are using a combination of question types in which students do a self-assessment and knowledge assessments. This is working well allowing us to gain a better understanding of how students feel about their scientific skills as well as what their actual knowledge is. Both of these are important goals in our course. We are able to see a very large improvement in student's own confidence in how science works with students initially giving themselves a 3 out of 5 in all questions associated with a self-assessment of their scientific skills. After covering the material, student's self-assessment showed that felt very confident 5 of 5 for 4 of the 5 categories. The self assessment aligned well with the knowledge assessment. Students scored an average of 7.8 of 14 on the pre-assessment and 10.59 on the post-assessment. Interestingly, they scored themselves lowest in their ability to assess the scientific integrity of a study and they also scored the lowest on the related knowledge questions in this area.

3. Program SLOs:

How do your program SLOs represent the scope and depth of learning appropriate to the degree/certificate programs offered? What needs improvement and why? Refer to the SLO/PRP report – <https://outcomes.palomar.edu:8443/tracdat/>

Our program SLO's represent the broad knowledge and learning that we expect from our students in the biology programs. They provide a broad overview of the basic knowledge that students in the programs will need to succeed in this field in their next step (Academic or Professional training). We have a new SLO coordinator with fresh perspective and enthusiasm. We hope to report back with better data and analysis in years to come.

4. Curriculum overview:

Does your program offer sufficient opportunities for students to learn current disciplinary and professional knowledge, skills, competencies, etc. for the type and level of degree/certificate offered? Discuss how your course/program reviews, since the last PRP, have changed and/or impacted your program. How is the potential need for program/course deactivation addressed by the department?

Our program has strived to deliver current knowledge and skills in our major's biology series for our students so that they may succeed in a biology major upon transfer. This curriculum is constantly assessed and modified to keep current with a quickly changing field. In our non-major's classes we have tried to incorporate contemporary knowledge and critical thinking skills while providing opportunities for students to explore biology as a possible career path. In Anatomy, Physiology and Microbiology, preparing health professionals for a constantly changing field is our goal. This requires updating our material constantly and maintaining a high rigor to prepare them for demanding programs later in their educational paths. We have not experienced any significant changes to our courses or programs other than a few minor adjustments to earn CID approval of our major's courses so that we could offer an AST in Biology. A few courses have been deactivated because we no longer have the faculty with the expertise to teach the courses or the courses were absorbed into other course outlines. The latter is particularly true for our field courses. We recently deactivated a few courses that were rarely offered when we moved under the single discipline of Biology.

5. Curriculum scheduling:

Describe how you schedule your courses to include a discussion on scaffolding (how all parts build on each other in a progressive, intentional way), and scheduling of courses so students can follow the best sequence. Address how enrollment issues impact scheduling and student completion/achievement.

We have tried to offer courses at a variety of times and locations to suit the needs of our students. We are working with other departments to schedule courses to make it easier for students following a particular curriculum path to take the needed courses in a reasonable time frame and schedule. Unfortunately, we are maxed out in our classrooms limiting our flexibility in scheduling.

6. Curriculum communication:

How does regular communication with other departments that require your courses in their programs occur – scheduling, review scheduling conflicts/overlaps for courses within same program, etc.?

We communicate with other departments at a division level in division meetings. We maintain collegial relations for the benefit of each other and our students. We have tried to support the Nursing department by changing prerequisite requirements for our courses and we have changed the requirements in our AA to benefit transferring students.

PART 3: Program Evaluation and Planning

Program Evaluation and Planning is completed in two steps.

Section 1: Overall Evaluation of Program

Using the results of your completed assessment (See Sections 1-6 above), identify the strengths and areas for improvement

within your program. Also consider the areas of opportunities and any external challenges your program faces over the next three years. Summarize the results of your assessment in the Grid below.

Section 2: Establish Goals and Strategies for the Next Three Years

Once you have completed your overall evaluation, identify a set of goals and strategies for accomplishing your goals for this upcoming three year planning cycle. Use the template in Section 2 below to document your goals, strategies, and timelines for completion.

SECTION 1: OVERALL EVALUATION OF PROGRAM

1. Discuss your discipline’s strengths, weaknesses, opportunities and threats in regards to curriculum, assessment, enrollment, success rates, program completion, etc. For helpful suggestions on how to complete this section, go to <http://www2.palomar.edu/pages/irp/files/2017/02/Helpful-Tips-for-Completing-a-SWOT.pdf>

Strengths:	First of all, we have one of the most collegial departments on campus which we all value and celebrate. Our students are our priority and it shows in everything we do. Thankfully, our courses are in high demand so we have not had the stress of trying to reinvent ourselves to increase enrollment. Our faculty are knowledgeable and passionate about what they do.
Weaknesses:	Unfortunately turnover with adjunct faculty makes it difficult to staff some of our classes with quality instruction. Limited budgets inhibit our ability to offer instruction in modern techniques.
Opportunities:	The field of biology is ever growing as are our enrollments. There are opportunities to develop programs for students, in collaboration with earth sciences, to offer certificates in environmental science that we are developing. We are launching a new AST degree in Biology which should aid students transferring to a Cal State more seamlessly. We look at the South and North Centers as opportunities to grow our department. We have entertained new program ideas (brewing and vet tech) and hope to see ideas develop in the near future.
Threats:	Lack of funding for supplies and support staff threaten our programs. Despite inflation and our enrollments climbing 39% over the past 6 years, our supply budgets and student hourly funds have actually declined. This has created a significant strain on our support staff and our instructors struggle to maintain the quality of instruction we have provided in years past.

SECTION 2: Establish Goals and Strategies for the Next Three Years

1. Progress on Previous Year’s Goals: Please list discipline goals from the previous year’s reviews and provide an update by placing an “X” the appropriate status box .

Goal	Completed	Ongoing	No longer a goal
Develop our SLOACs		X	
Implement new and relevant laboratory activities		X	
Offer a low-cost field course to our students.		X	

2. New Discipline Goals: Please list all discipline goals for this three-year planning cycle (including those continued from previous planning cycle):

Goal #1

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Program or discipline goal	Encourage students to pursue an AST in Biology
Strategies for implementation	We think having a gathering of students interested in biology as a major might build some connections between students and faculty and allow them to learn about the AST now offered.
Timeline for implementation	Two Years
Outcome(s) expected (qualitative/quantitative)	We will look at the number of students who complete the AST in Biology
Goal #2	
Program or discipline goal	Re evaluate our course SLOs and program SLOs so that they assess some course and program goals rather than just objectives found on the course outline of record
Strategies for implementation	Meet as a department to discuss possible changes.
Timeline for implementation	One Year
Outcome(s) expected (qualitative/quantitative)	Changes to the SLOs for both courses and programs
Goal #3	
Program or discipline goal	Restructure the existing AS degrees offered by our program to prepare students for pre-health professional pathways; biology majors transferring to a UC and also biology majors transferring to a CSU.
Strategies for implementation	Evaluate the requirements of local institutions and align our requirements appropriately.
Timeline for implementation	Two Years
Outcome(s) expected (qualitative/quantitative)	Changes to our degree pathways published in the course catalog.
Goal #4	
Program or discipline goal	Develop SI sessions for online Bio 101, 102 and 114 during faculty office hours with planned activities each time. The online Bio 101 and Bio 114 students in particular need help having the lowest success and retention rates of our department. We are hoping that a scheduled session with group review activities might encourage attendance. We have found that online students who have even one office hour with an instructor improve their exam performances. We believe there is a lack of perceived accountability when we don't see these students face-to-face. Once they know that we can put a face with a name and personally encourage their success it seems to make a difference. Success and retention in Bio 102 is also markedly lower than the department and this course serves as a prerequisite for our Anatomy, Physiology and Microbiology courses. Students seem to be unprepared for the demands of the course and we would like to help them make the transition.
Strategies for implementation	Add these sessions to the syllabus of one online course first and build from there.
Timeline for implementation	Three Years

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Outcome(s) expected (qualitative/quantitative)	We hope to see an increase in success and retention in these courses.
Goal #5	
Program or discipline goal	Develop a successful program at the new south center and subsequently the north center. We hope to staff the course offerings with qualified faculty, provide adequate support staff and supplies to match the quality on the main campus.
Strategies for implementation	Continue to emphasize the need for the centers to have the same quality of instruction offered on main campus.
Timeline for implementation	Two Years
Outcome(s) expected (qualitative/quantitative)	Success of this goal should be reflected in the success and satisfaction of students enrolling in offered course on these satellite campuses. We might need to use a survey for the latter assessment.

3. How do your goals align with your discipline's mission statement?
Our goals closely align with our mission statement to provide a solid foundation in biology and prepare them for transfer to a university or pre-health professional program.

4. How do your goals align with the College's Strategic Plan Goals?
Our goals mirror the values of the college strategic plan to provide excellence in our learning opportunities through excellent teaching as well as providing access to the quality of Palomar College programs through satellite campuses and online courses in addition to the courses we offer on main campus.

PART 4: FEEDBACK AND FOLLOW-UP

This section is for providing feedback.

Confirmation of Completion by Department Chair	
Department Chair	Beth Pearson
Date	12/1/17

***Please email your Dean to inform them that the PRP has been completed and is ready for their review**

Reviewed by Dean	
Reviewer(s)	Margie Fritch
Date	March 13, 2018

1. Strengths and successes of the discipline as evidenced by the data and analysis:

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The SLOs and goals are well thought out and documented
2. Areas of Concern, if any:
Appropriate funding
3. Recommendations for improvement:
Identify appropriate funding streams to support program

***Please email your VP to inform them that the PRP has been completed and is ready for their review**

Reviewed by: Instructional Planning Council PRP Sub-Committee	
Reviewer(s)	Smd, Justin Smiley
Date	12/18/17
1. Strengths and successes of the discipline as evidenced by the data and analysis:	
<p>Thorough and information is well supported. Good analysis and response to student demand and class schedules Addressing achievement gap with more one on one time and getting to know students by name Impressive in-depth and comprehensive analysis of SLO data</p>	
2. Areas of Concern, if any:	
None.	
3. Recommendations for improvement:	
None.	
4. Recommended Next Steps:	
Yes	Proceed as Planned on Program Review Schedule
	Repeat Comprehensive Review

Reviewed by: Vice President	
Reviewer(s)	Jack S. Kahn Ph.D.
Date	1/18/18
1. Strengths and successes of the discipline as evidenced by the data and analysis:	
<ol style="list-style-type: none"> 1. Discipline enrollments, fill rates, and wsch/ftf is well done- includes data with analysis 2. The 60/30 model is a clever way to both meet efficiency goals and have the ability to spend more individual time with students (as described) – makes good sense 3. Comparing success rates to the college makes sense as well 4. SLO section is also excellent-not just written well, not just includes data, not just includes an excellent analysis – it also discusses how SLO data is being used to improve the program- method section and program also well done- great 5. SWOT is also well done – Bio does seem like a great collegial dept. 6. Im hoping we can settle your funding issues with lottery next year 7. Goals are also really thoughtful and reflect the dialogue above 8. Excellent review- thoughtful, summarized well, uses data etc etc. sorry to repeat myself just really appreciate and enjoyed 	

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2. Areas of Concern, if any:

3. Recommendations for improvement:

4. Recommended Next Steps:

X	Proceed as Planned on Program Review Schedule
	Repeat Comprehensive Review

Upon completion of PART 4, the Program Review document should be returned to discipline faculty/staff for review, then submitted to the Office of Instruction and Institutional Research and Planning for public posting. Please refer to the Program Review timeline.