



# 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:

<b>Discipline Name:</b>	Chemistry
<b>Department Name:</b>	Chemistry
<b>Division Name:</b>	MNHS

Please list all participants in this Program Review:

Name	Position
Jennifer Zabzdyr	Department Chair
Tsung Lee	Instructional Support Assistant
Heriberto Rivera	Assistant Professor

<b>Number of Full Time faculty</b>	6	<b>Number of Part Time Faculty</b>	19
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Please list the Classified positions (and their FTE) that support this discipline:

Academic Departmental Assistant (1)  
Instructional Support Assistants (2)

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

Federal Work Study Student Workers (5): 45 total hours/week  
Student Workers (5): 44 total hours/week

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

The Palomar College Chemistry Department provides a comprehensive education in the chemical sciences in order to support student learning for success. Our primary goal is to prepare our diverse student population for the pursuit of Bachelor degrees in Chemistry or other Natural Science disciplines with which they may enter the workplace. We provide students with fundamental knowledge of chemistry and chemical laboratory techniques, with an emphasis in critical thinking and problem

solving.

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

AS and Certificate of Achievement

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

Enrollment initially decreased by 9.4% between 2011 (1349 students) and 2012 (1222 students). This trend was expected, as the college’s enrollment dropped by 6.2% during that time period. From 2012 to 2015, discipline enrollment has been increasing at a rate of 20% per year, in direct contrast to a continued decrease in enrollment college wide (**include %**). This resulted in an overall increase from 1222 students in 2012 to 1815 students in 2015. Enrollment dropped 2.1% between 2014 and 2015, but increased by 7.5% between 2015 and 2016, despite a continued decrease in enrollment across the college. As of 2016, our enrollment is 1910 students. Chemistry is required not only for chemistry majors, but for biology, nursing, physics, etc. As such, chemistry is a high demand course with consistently high enrollment.

**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?

CHEM 100, 104, 110, 110L, 115, 115L, and 220 traditionally have fill rates greater than 90%; many greater than 95%. CHEM 105 has slightly lower fill rates ranging from 120.83% in 2011 to 88.89% in 2016. This drop can be attributed to the introduction

of CHEM 104, which replaces CHEM 105 as a requirement for nursing majors. CHEM 221 has also had a decrease in fill rate from 100% in 2012, 2012, and 2014 to 75% in 2016. This drop in fill rate correlates with an increase of the available seats. Before 2015, the course was capped at 36 seats. Beginning in 2015, the course was capped at 72 seats. Courses with traditionally low fill rates include CHEM 10 and CHEM 205. CHEM 10 has fill rates ranging from 61.11% in 2011 to 59.52% in 2016. This could be addressed by lowering the cap on the course. Currently the course is capped at 42 seats. For the last 5 years, however, only 18 to 25 students enroll. If the cap were lowered to 25, the fill rate would increase. Despite the low fill rate, this class is important to the department, as it provides calculation support for students enrolled in our other classes. As such, we have no plans to deactivate it. CHEM 205 has fill rates ranging from 40.00% in 2011 to 51.67% in 2016. Along with CHEM 105, CHEM 205 has largely been replaced by CHEM 104. The low fill rate with this course would be best addressed by lowering the cap from 60 to 30. Courses that are typically not scheduled include CHEM 210 and CHEM 295. CHEM 210 has not been offered in more than 10 years. It is always a low enrollment course, as only chemistry and biochemistry majors need the class. It has not yet been deactivated, since it is listed as a requirement for the AS degree in Chemistry. In order to deactivate the class, we would have to first replace it in AS degree requirements. CHEM 295 (Directed Studies) is not a traditional course; rather, it allows students to earn units for research projects, etc. under faculty direction. As such, it has limited enrollment (1 person enrolled in the last 5 years). A possible solution to the CHEM 205/210/295 enrollment issues (aside from lowering caps) would be to replace CHEM 210 with CHEM 205 or CHEM 295 in the AS degree requirement and then deactivate CHEM 210.

### 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	X	Steady/No Change		Decreased	
Discipline Efficiency:	<b>Above 525 (35 FTES/FTEF)</b>	X as of 2016	<b>At 525 (35 FTES/FTEF)</b>		<b>Below 525 (35 FTES/FTEF)</b>	

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

Our discipline efficiency trend increased between 2011 and 2013 from a WSCH/FTEF of 492.99 in 2011 to 525.70 in 2013. It dropped in 2014 to 499.04, but has been rising since, to 571.17 in 2016. The trend is expected. Since 2014 the total number of FTEF has been relatively stable at ~14, but our discipline enrollment has been increasing, as described above.

### 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.**

The number of contract FTEF decreased from 4.6 in 2011 to 2.6 in 2012 and 2013 due to retirement. As of 2016, we are back up to 4.4, due to the recent hire of 2 new contract faculty. The number of part-time FTEF increased from 5.67 in 2011 to a maximum of 10.47 in 2015. The number decreased in 2016 to 8.67 due to contract faculty hires. As of 2016, 68.57% of our FTEF are part-time, down from 80.98% in 2015. Overload FTEF has risen from 0.4 in 2011 to 0.93 in 2016. Historically, staffing challenges occur when retired faculty are not immediately replaced by new contract faculty. As a result, we rely heavily on part-time FTEF to make up the difference. As high-quality part-time FTEF often find tenure-track positions elsewhere, we are continually hiring new part-time faculty and thus, have a high turnover rate.

## 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?

Our discipline’s course success rates have decreased from 74.0% in 2011 to 65.4% in 2016. Since 2012, they’ve been fairly stable, with an average of 67% (+/- 3%). Campus wide, success rates have decreased from 72.9% in 2011 to 71.4% in 2016, with an average success rate of 71% (+/- 1%). Our success rates are about where we would expect them to be; chemistry is a challenging subject for most students and success rates are typically lower than for other classes.

**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	From 2011 - 2017, there were no discernible trends in success rates attributed to gender. We had an average success rate of 68.8 % for male and 68.0% for female. The population of female vs male students was 49.2% to 50.8% from 2011-2017, with a total population 6961.
Age	From 2011 to 2016, there were no discernible trends in success rates with respect to age. On average, students <19 years are the most successful with an average success rate of 71% (+/- 5%), followed by students from 25-49 years with an average success rate of 68% (+/- 6%). Students from 20-24 years had the lowest success rates of 67% (+/- 4%). That said, within the margins of error, there is no statistical difference in success rates between the three age groups.
Ethnicity	There are no discernible trends in the success rate of white and asian students between 2011 and 2016. Both populations have the same average success rates of 74% (+/- 5%). The success rate of hispanic students has been decreasing from 72.5% in 2011 to ~53% in both 2015 and 2016. The average success rate is 62% (+/- 8%), significantly lower than that of white and asian students and significantly lower than the campus-wide success rate of 71% (+/-1%).
Special Population (examples- veteran, foster youth, etc)	The average success rate of veterans is 69% (+/- 4%), similar to that of the discipline as a whole (67% success rate) and the college (71% success rate).

**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 two other variables analyzed were time of day and term load. **TIME OF DAY:** There are no discernible trends in success rates between 2011 and 2016 for either day or evening classes. The average success rate of day students over the

time period is 68% (+/- 3%); the average success rate of evening students is 72% (+/- 8%). Within margin of error, there is no statistical difference between the success rates in day and evening students. **TERM LOAD:** Success rates have declined for full-time students from 76.8% in 2011 to 67.7% in 2016. Similar results are seen for part-time students, from 68.5% in 2011 to 61.3% in 2016. On the whole, full-time students have higher success rates than part-time students. The average success rate for full-time students was 70% (+/- 4%), whereas for part-time students the average rate was 65% (+/- 4%). Part-time students probably also work, and may work full-time, which could explain the lower success rate.

### 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:	65%
Why?	
I think that the standard for course success ought to be lowered due to the rigorous nature and the difficulty of chemistry relative to other courses.	

### 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?

There was 1 AS degree completion in 2008 and 1 in 2011. There were 2 certificate of achievements in 2008, 1 in 2010, and 1 in 2015. This is typical for chemistry. The plan of most students coming through our department is to either (1) complete transfer requirements or (2) complete requirements for other programs at Palomar (i.e. nursing). We see relatively few chemistry majors in the department, and those few that do come through transfer to university without obtaining an AS degree or certificate.

#### 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?

We traditionally have low completions for both AS degrees and certificates. As stated above, the goal of most students coming through the department is to complete transfer requirements and move on. The only students who might consider an AS or certificate in chemistry would be chemistry majors. However, the goal of chemistry majors is a BS degree (or beyond), not an AS degree. To further complicate matters, one of the requirements for the AS degree, CHEM 210, has not been offered in many years because of low enrollment. As such, I really see no reason to have AS degrees or certificates in chemistry. Our enrollment would not decrease if the degrees/certificates were eliminated.

**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:

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).

None.

## 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/>**

SLO assessment results have not impacted planning over the last three years. The SLOs that have been assessed in this time period have been achieved by the classes.

## 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/>**

Our primary methods for assessing course SLOs involve embedded questions in final exams that are given across all sections of a given course. This method generally works well for assessing specific SLOs (i.e. nomenclature, a specific type of calculation, etc). Critical thinking is an important SLO across all of our courses. However, assessing critical thinking is more challenging as it is more subjective. To assess our program SLO, we currently administer the American Chemical Society's organic chemistry exam at the end of CHEM 221. This is an effective method for assessing cumulative chemical knowledge. Since this exam is a standardized exam administered nation-wide, it permits comparison of our students to those from other schools.

## 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 SLOs are (1) Proficiency in a Chemical Lab Technique and (2) Application of the Scientific Method. SLO (1) is assessed in the lab; students execute and write a lab report for a given experiment. The lab report is graded through a standard rubric. As chemistry is a lab science, this SLO is vital to the degree program. However, timing is critical to the success of this SLO. Students need to be assessed toward the end of the course/program, to ensure that they have had adequate time to refine their technique. An alternative way to assess this SLO, currently under consideration, is to administer lab practical exams, where students demonstrate their ability to perform various techniques before the instructor. The downside to this method of assessment, is the limited amount of lab time that is available for students to practice the techniques. SLO (2) is assessed in the lecture at the end of our program (after CHEM 221) by administering the American Chemical Society standardized test, the results of which can be compared to other students across the country.

## 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?**

Students learn all the relevant and current techniques, instrumentation and methods directly applicable to the skills sought in the professional world. In fact, students who complete the organic chemistry sequence are able to use instruments that most student at large 4-year universities do not, thereby making them better prepared for a technical job or better prepared



to finish their 4-year degree. If we had a higher number of students attempting to complete the 2 year certificate, we would be able to offer chemistry 210, and provide them with an even greater education.

### 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.**

Chemistry is a cumulative subject, so attention to detail and structure are very important. A student who does not understand chapter 1, will have trouble understanding every succeeding chapter. We end every chapter with a lead into the next chapter, and during each lesson we recall and build on the previous concepts. All classes are offered every semester, with the exception of Chem 220 (organic chemistry), so students have access to the next class in the sequence regardless of the semester. Chemistry 220, has traditionally been a low-enrollment course, thus the sequence is only offered once throughout the year. Enrollment has been steadily increasing since 2011, and department has kept up with the demand. With the hard work from everyone, we have been able to cater to the ever increasing number of students. However, we are slowly reaching a saturation point but are hopeful that this can be relieved with the opening of both the North and South centers. Both of which will offer chemistry classes.

### 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.?**

There is an open line of communication between departments, whether through academic department assistants or department chairs. Fortunately, most science programs have multiple sections that it is usually not an issue.

## 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>**



COMPREHENSIVE PROGRAM REVIEW AND PLANNING

<b>Strengths:</b>	Chemistry is a cornerstone subject, and it is required for all STEM majors. With an increasing demand for STEM majors, we are confident our enrollment will increase. We have also exemplified our ability to add extra classes required to satisfy the increasing student enrollment. Although our overall success rate is a few points below the college standard, we still consider our rate a success considering chemistry tends to be one of the more rigorous courses a student takes in their education. Most sub-categories (age, gender, etc) also fall within this range, lending to our success across multiple groups.
<b>Weaknesses:</b>	Though we have seen an increase in enrollment, we have seen a small drop in success rates. This can be partially attributed to the turnover in part-time and full-time faculty. It has taken a few years to regain 6 total full-time faculty, which will directly impact the success rates. Furthermore, in the the last three years, there has been turnover in part-time faculty. Losing experienced educators will affect everyone. More full-time faculty would likely help improve our overall rates.
<b>Opportunities:</b>	We have taken advantage of the increasing demand for STEM majors. This has led to an overall increase in enrollment and hiring of full-time faculty.
<b>Threats:</b>	A reduction in funding. We have consistently added new courses but our funding has not kept pace with the growing number of courses. It is understood that funding has been affected at all levels, however if we want to maintain the quality of our courses then we need to make sure we have the required funds to provide the best education possible.

**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
To offer CHEM 205 in Fall and Spring semesters.			X
To offer CHEM 10 in Summer and Winter intercession.	X		
To create custom lab manuals for CHEM 100, 105, 110, and 115 labs.	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	
<b>Program or discipline goal</b>	Switch to low-cost and/or no-cost textbooks for all of our classes.
<b>Strategies for implementation</b>	Test Open-Stax general chemistry textbook (no-cost) for CHEM 110 and 115 in addition to ALEKS online homework (low-cost); Use ALEKS online program to for CHEM 100 homework and to replace CHEM 100 textbook.
<b>Timeline for implementation</b>	1-3 years
<b>Outcome(s) expected (qualitative/quantitative)</b>	Qualitative and quantitative. Low cost course options are attractive to students and may help to increase the number FTES.
Goal #2	
<b>Program or discipline goal</b>	Hiring more full-time faculty

COMPREHENSIVE PROGRAM REVIEW AND PLANNING

<b>Strategies for implementation</b>	beg?
<b>Timeline for implementation</b>	1-3 years
<b>Outcome(s) expected (qualitative/quantitative)</b>	Qualitative and quantitative
<b>Goal #3</b>	
<b>Program or discipline goal</b>	Improve overall teaching quality.
<b>Strategies for implementation</b>	Develop solid/detailed course curricula for everyone to follow.
<b>Timeline for implementation</b>	2- 3 years
<b>Outcome(s) expected (qualitative/quantitative)</b>	Quantitive, we expect to see an increase in overall success rates.
<b>Goal #4</b>	
<b>Program or discipline goal</b>	
<b>Strategies for implementation</b>	
<b>Timeline for implementation</b>	
<b>Outcome(s) expected (qualitative/quantitative)</b>	
<b>Goal #5</b>	
<b>Program or discipline goal</b>	
<b>Strategies for implementation</b>	
<b>Timeline for implementation</b>	
<b>Outcome(s) expected (qualitative/quantitative)</b>	

**3. How do your goals align with your discipline’s mission statement?**

It is our mission to provide a high quality chemical education to Palomar’s diverse student population. Lowering the cost to students by switching to low-cost or no-cost textbook options will make the program available and attractive to more students. Hiring full time faculty will help to mitigate the high turnover rate associated with part-time faculty, which can only benefit our students. Finally, improving teaching quality and better coordinating our lecture and lab courses, will make for a better learning environment for the students.

**4. How do your goals align with the College’s Strategic Plan Goals?**

Switching to low or no-cost textbook options will make our program more accessible to lower income students, aligning with Palomar’s core value of “Access to programs and services”. Hiring more full-time faculty in order to reduce the turnover rate in part-time faculty align with the core values of “Excellence in teaching, learning, and service” and “Creativity and innovation in engaging students”. Faculty with full time employment have more time to devote to honing their teaching abilities and to implement creative learning environments.

**PART 4: FEEDBACK AND FOLLOW-UP**

This section is for providing feedback.

**Confirmation of Completion by Department Chair**

<b>Department Chair</b>	Jennifer Zabzdyr
<b>Date</b>	11/15/17

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

**Reviewed by Dean**

<b>Reviewer(s)</b>	Margie Fritch
<b>Date</b>	March 13, 2018

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

Excellent discussion and presentation of data.

**2. Areas of Concern, if any:**

**3. Recommendations for improvement:**

SLO section should utilize rubric.

**\*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**

<b>Reviewer(s)</b>	Sarah De Simone
<b>Date</b>	2/9/2018

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

The PRP is thorough with supportive documentation and explanation.

**2. Areas of Concern, if any:**

SLO assessment results could use a little more detail but Program SLOs look good.

**3. Recommendations for improvement:**

**4. Recommended Next Steps:**

<input checked="" type="checkbox"/>	<b>Proceed as Planned on Program Review Schedule</b>
<input type="checkbox"/>	<b>Repeat Comprehensive Review</b>

COMPREHENSIVE PROGRAM REVIEW AND PLANNING

Reviewed by: Vice President	
<b>Reviewer(s)</b>	Jack S. Kahn, Ph.D.
<b>Date</b>	1/18/18
1. Strengths and successes of the discipline as evidenced by the data and analysis:	
<ol style="list-style-type: none"> <li>1. The enrollment section is excellent- great inclusion of data</li> <li>2. Great fill rate discussion and rationale as well</li> <li>3. I can understand the role CHEM 10 fulfills even if it has not had a lot of enrollment. I wonder if it is meeting its demand now or whether we need to make the usefulness of this class more widely known (at the institutional level)</li> <li>4. Also good description of efficiency measures</li> <li>5. Success rate rationale does make sense- I wonder of we need more tutoring support etc?</li> <li>6. Also good discussion of demographics and analysis also makes good sense.</li> <li>7. Any sense of why the decline in success rates for full time students?</li> <li>8. It would be great to see more degree completions but your analysis seems to make sense in terms of transfer</li> <li>9. Curriculum scheduling is well explained and makes sense</li> <li>10. SWOT analysis makes good sense- we can address funding issues also once out of stability through lottery- lets talk</li> <li>11. Very excited about low-cost textbook goal thank you</li> <li>12. Not sure if begging for more faculty will work ?!</li> <li>13. Well done, solid PRP- we will be working on SLO reporting this year</li> </ol>	
2. Areas of Concern, if any:	
SLO section needs work- please see rubric- program discussion is rich and thorough	
3. Recommendations for improvement:	
4. Recommended Next Steps:	
X	<b>Proceed as Planned on Program Review Schedule</b>
	<b>Repeat Comprehensive Review</b>

**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.**