**YEAR 2**

**ACADEMIC YEAR 2013-14**

Program Review and Planning Year 2 form is an evaluation of the progress on last year’s goals (Year 1 PRP) and is also planning of goals and activities for the current year (2013-2014).

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| **Discipline: Chemistry** | **Date 01/27/2014** |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review.)** | **Add Date (00/00/2014)** |

**Purpose of Program Review and Planning:**

The institution assesses progress toward achieving stated goals and makes decisions regarding the improvement of institutional effectiveness in an on-going and systematic cycle of evaluation, integrated planning, resource allocation, implementation, and re-evaluation. Evaluation is based on analyses of both quantitative and qualitative data (ACCJC/WASC, Standard I, B.3.).

**DEFINITION**

Program Review and Planning is the means by which faculty, staff, and/or administrators complete a self-evaluation of an academic discipline, program, or service.  The self-evaluation includes an analysis of both quantitative and qualitative data on how the academic discipline, program, or service is supporting the mission and strategic planning of Palomar College in meeting the educational and career interests of students.  Through the review of and reflection on key program elements, such as program data and student learning outcomes, Program Review and Planning defines the curriculum changes, staffing levels, activities, and/or strategies necessary to continue to improve the academic discipline, program, or service in support of student success.  The Program Review and Planning process also ensures short-term and long-term planning and identification of the resources necessary to implement identified goals and priorities.

[**Palomar College Mission**](http://www.palomar.edu/about/goals.aspx)

Our mission is to provide an engaging teaching and learning environment for students of diverse origins, experiences, needs, abilities, and goals. As a comprehensive community college, we support and encourage students who are pursuing transfer-readiness, general education, basic skills, career and technical training, aesthetic and cultural enrichment, and lifelong education. We are committed to helping our students achieve the learning outcomes necessary to contribute as individuals and global citizens living responsibly, effectively, and creatively in an interdependent and ever-changing world.

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| **Program/Discipline Mission** |
| **List everyone who participated in completing this Year 2 Program Review and Planning Document.**  **Patti Brandon & Tsung Lee** |
| **State your program’s or discipline’s mission statement. If you don’t have one, create one.**  **The mission of the Palomar College Chemistry Department is to support student learning for success. Our primary goal is preparing our diverse student population for the pursuit of Bachelor degrees in Chemistry, as well as other Natural Science degrees with which they may enter the workplace. We provide students with the fundamental concepts, knowledge and laboratory techniques in a healthy and safe environment.** |
| **Explain how your program’s or discipline’s mission is aligned with the Palomar College Mission Statement.**  **The Chemistry Department's mission statement is aligned with the Palomar College mission statement through our commitment to providing the diverse population of students the information required to continue their education. By preparing them for transfer to the University of California and the California State schools we continue to be an important part, the initial instigators, of the process of becoming educated, innovative, creative citizens who will enter the workplace. We hope this process enhances public awareness regarding the world we live in on a molecular level.** |

**STEP I. Review and Evaluation of Year 1  
In this section, evaluate the program plans you described in last year’s Program Review and Planning Document.   
Refer to “STEP II: PLANNING” in your 2012-13 YEAR 1 PRP document at:** <http://www.palomar.edu/irp/PRPCollection.htm>.

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| 1. **Progress on Current Plans. For each planning area below, summarize your program plans as documented in the Year 1 form (last year’s form) and evaluate your progress on completing them.**   **Curriculum (Step II.A. of Year 1 PRP)**   1. **Summarize the plans you made regarding curriculum? (Consider how SLO assessment results influenced curriculum planning.)**   **The AA or AS degree in Chemistry requires Analytical Chemistry, Chemistry 210. Offering the course every other year was an option, cycling the course with CSUSM.**   1. **How did you implement and evaluate those curriculum changes?**   **The number of students interested in a AA or AS degrees is so low possibly due their inability to commit at this very early stage in their education careers. We might consider allowing them to take the class at CSUSM and receiving the degree from Palomar College.**  **Class Scheduling (Step II.B. of Year 1 PRP)**   1. **Summarize the plans you made regarding class scheduling?**   **There is no negative scheduling impact forseen in offering Chemistry 210, however due to low enrollment it may not be a viable financial option for the college.**   1. **How did you implement and evaluate those class scheduling changes?**   **The course is not being offered.**  **Faculty Hiring (Step II.C. of Year 1 PRP)**   1. **What faculty needs did you articulate for this discipline?**   **The Chemistry Department is in need of a full-time, permanent faculty member to teach the Organic Chemistry courses for the chemistry major, pre-dental and pre-medical students.**   1. **What is the current status of the plan you articulated?**   **The Chemistry Department is in the process of hiring a full-time Organic Chemist.** |
| 1. **Analysis and Impact of Resources Received (Step III – Year 1 – Resource Requests for Discipline)** 2. **What is the dollar amount you received from IPC last year (2012-2013)? You can access the 2012-13 IPC PRP allocations by clicking on this link:** <http://www.palomar.edu/irp/201213resourceallocations.pdf>   **$7000.00 (Foundation$$)**   1. **How were those funds spent?**   **A Roto-vapor for the Organic Chemistry Lab**   1. **Identify permanent employees requested and prioritized by IPC, i.e., classified/CAST/administrative. You can access this information by clicking on this link:** <http://www.palomar.edu/irp/staffingplan.pdf>   **0**   1. **Describe the impact of these funds received from IPC on:** 2. **Curriculum (courses, SLOs)**   **The Organic Chemistry lab students will now be able to use this apparatus further enhancing their lab skills and techniques.**   1. **Number of students affected**   **~ 54 / year**   1. **Other**   **NA**   1. **Describe unmet funding requests as they apply to your planning and priorities.**   **The HPLC (High Performance Liquid Chromatography) and Hydrogenation Apparatus, both essential to the Organic Chemistry laboratory remain unfunded. Purchase of theses instruments will also require annual maintenance agreements at an additional annual cost. New laboratory needs include Spectrophotometers, pH meters, Geiger Counters and a Digital Change-over Gas Regulator.** |

**STEP II. Evaluation of Program & SLOAC Data**

**In this section, review and analyze updated program data, the results of SLOACs, and other factors that could influence your program plans for this upcoming year.**

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| 1. **Program Data. Provide an analysis of the past six years (2007-08 through 2012-13) of your discipline’s data. Consider trends in the data and what may be causing them. (For enrollment, WSCH, & FTEF data, use Fall term data only). The links below will take you to the three sets of data to analyze.**     * Enrollment, Enrollment Load, WSCH, and FTEF (<http://www.palomar.edu/irp/PRP_WSCH_FTEF_Load.xlsx>) **(Use Fall term data only).**    * Course Success and Retention rates (<http://www.palomar.edu/irp/PRP_Success_Retention.xlsx>**). Note, this file is very large and there will be a delay both when you open the file and again when you initiate the first search.**    * Degrees and Certificates (<http://www.palomar.edu/irp/PRP_Degrees_Certs.xlsx>).   **Describe your analysis and observations.**  **While decreasing the number of classes being offered we have only a slight decrease in the Census load %. Pass and Retention rates remain high, with the evening students achieving higher percent values across the board.**  **Does this data reflect your planning, goals, and activities? If not, why?**  **Yes. As the number of seats made available (classes offered) decreased the Census load % remained nearly constant, above 95% for the past four years. Without the Chemistry 210 course being offered we cannot expect to see any number of AA degrees being granted.** |
| 1. **SLOACs. Using the comprehensive SLOAC reports and faculty discussions as a guide, provide a summary and analysis of Student Learning Outcome assessments at the course and program level. Link to SLOAC resources:** <http://www2.palomar.edu/pages/sloresources/programreview/> 2. **Summarize your SLOAC activities during the 2012-2013 academic year.**   **There have not been any activities during this time frame.**   1. **Course SLOACs: What did you learn from your course SLO assessments? What will you maintain and/or change because of the assessment results?**   **From the lack of assessments I have learned that the SLO's need to be updated and assessed each semester to provide valuble information for this report.**   1. **Program SLOACs: What did you learn from your program SLO assessments? What will you maintain and/or change because of the assessment results?**   **Same as Course, see above.** |
| 1. **Other Relevant Data and Information.** 2. **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).**      1. **Given this information, how are your current and future students impacted by your program and planning activities? Note: Analysis of data is based on both quantitative (e.g., numbers, rates, estimates, results from classroom surveys) and qualitative (e.g., advisory group minutes, observations, changes in legislation, focus groups, expert opinion) information.** |
| 1. **Labor Market Data. For Career/Technical disciplines only, provide a summary of the current labor market outlook. This data can be found on the CA Employment Development website at** [**http://www.labormarketinfo.edd.ca.gov/**](http://www.labormarketinfo.edd.ca.gov/) **. Go here and search on Labor Market Information for Educators and Trainers (http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=112). Click on summary data profile on right side of page to search by occupation. (Check other reliable industry or government sources on Labor Market Data websites that support findings and are relevant to Region Ten – San Diego/Imperial Counties. Include job projections and trends that may influence major curriculum revisions.)** |
| 1. **Discipline/Program Assessment:** **Based on Steps I and II above, describe your discipline’s or program’s:** 2. **Strengths**   **Introductory, General, Organic Chemistry series. New, enthusiastic part-time faculty.**   1. **Weaknesses**   **Determination of the students prerequisites that are required, yet not checked, for General Chemistry.**   1. **Opportunities**   **Set-up General Chemistry Entrance Exam. Hire new part-time and full-time faculty.**   1. **Challenges**   **Getting the Entrance Exam through the 'system'.** |

**STEP III. Updated Goals & Plans**

**Taking the analyses you completed in Steps I and II, describe your program’s goals and plans.**

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| 1. **Goals and Plans: What are your goals for 2013-14? When establishing goals, consider changes you are making to curriculum, schedule, and staffing as a result of the assessments you completed in STEPS I and II above. Goals should reflect your program/discipline’s top priorities for the coming academic year.**   **For EACH goal provide the following:** | |
| **GOAL #1** | |
| **Program or discipline goal** | **System check for required prerequisite courses** |
| **Plans/Strategies for implementation** | **Have the college records office perform this function of checking students records for prerequisite courses.** |
| **Outcome(s) expected (qualitative/quantitative)** | **A greater number of students should pass the class (Chemistry 110) and students will be better prepared.** |
| **GOAL #2** | |
| **Program or discipline goal** | **Require a General Chemistry Entrance Exam, with a minimum grade, for all students taking GeneralChemistry (Chem 110).** |
| **Plans/Strategies for implementation** | **Write an exam with questions that an incoming, prepared chemistry student should already know. Set-up/design a method for administering and grading the exam. Adjust the class schedule to accomadate the number of students needing to take Chem 100.** |
| **Outcome(s) expected (qualitative/quantitative)** | **An increase in the number of students passing the General Chemistry course (Chem 110) and better prepared students for the second semester General Chemistry course (Chem115).** |
| **GOAL #3** | |
| **Program or discipline goal** | **Offer Analytical Chemistry (Chemistry 210) at least every 3 years and/or alternate this course offering with CSUSM.** |
| **Plans/Strategies for implementation** | **Survey students for possible class size and encourage participation from CSUSM students.** |
| **Outcome(s) expected (qualitative/quantitative)** | **More AA or AS degrees can be earned and awarded.** |
| **ADDITIONAL GOAL (*if needed*)** | |
| **Program or discipline goal** | **Hire another full-time Chemistry faculty.** |
| **Plans/Strategies for implementation** | **Present our need in the upcoming Full-Time Faculty Rationale Form.** |
| **Outcome(s) expected (qualitative/quantitative)** | **A lower percentage of our courses being taught by part-time faculty.** |

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| 1. **Alignment with College Mission and Strategic Plan Goals.** 2. **How do your goals align with the Palomar College Mission?**   **Providing the people of the community with the required lower division classes for transfer to the State and UC schools for degrees in the Life Sciences, specifically Chemistry.**   1. **How do your goals align with the College’s Strategic Plan Goals? See the College’s Strategic Plan 2016 Goals at:** <http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf>   **Utilizing the STEM funded Supplemental Instructor program we have been able to increase the number of Chemistry students using this important support service (Objective 1.3).**  **Hiring new faculty in the Chemistry Department (Goal 3).**     1. **Based on your program review and planning, describe any issues/concerns that have emerged that require interdisciplinary or College-wide dialogue and/or planning.**   **The Chemistry Department SLO's need to be updated to better reflect the goals and objectives of the college. Current assessment is also needed for further resource allocation.** |

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| **STEP IV. Resources Requested for Academic Year 2013-2014:** |
| **Now that you have completed Steps I – III, Step IV requires you to identify all additional resources you will need to achieve your Goals and Plans/ Strategies (Step III).  First, identify all resource needs in each budget category.  You may have up to five (5) requests per budget category.  Provide a meaningful rationale for each request and how it links to your Goals, Plans, and Strategies.   \*Second, ALL your resource requests must be prioritized as one group; not prioritized within each budget category.  This means, you could have your #1 priority in Technology, your #2 priority in Short-term Hourly, and your #3 priority in Equipment, etc.  If you actually have five (5) requests in each of the five (5) budget categories, you would end up with 25 prioritized requests. IPC will not consider any requests that are not prioritized. Resource requests to simply replace budget cuts from previous years will not be considered.   PLEASE NOTE THAT ALL FUNDING ALLOCATED BY IPC IS ONE-TIME AND MUST BE SPENT WITHIN THE DEFINED TIMELINE. RESOURCE REQUESTS THAT SUPPORT MORE THAN ONE DISCIPLINE SHOULD BE INCLUDED ON THE ‘ACADEMIC DEPARTMENT RESOURCE REQUESTS” PRP FORM ONLY.** |

**Budget category a. Equipment (600010) (per unit cost is >$500). *Enter requests on lines below. Click here for examples of equipment:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf)

| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
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| **a1.** | **High Performance Liquid Chromatograph** | **SLO** | **SP 1 & 4** | **5** | **Our HPLC has deteriorated over the years to the point now that it no longer functions. This instrument reflects modern and currently practiced lab technique. Repair costs are greater than a modern replacement.** | **$28,000.** |
| **a2.** | **pH meters** | **SLO** | **SP 1 & 4** | **2** | **These instruments are used exstensively in the second semester chemistry course. Currently we don't not have enough working meters for each student to work independently.** | **$10,000.** |
| **a3.** | **Spectrophotometers - 200** | **SLO** | **SP 1 & 4** | **1** | **These instruments are used in the first semester chemistry course. Currently we have over 250 students per semester utilizing seven (7) of these valuble instruments.** | **$8,500.** |
| **a4.** |  |  |  |  |  |  |
| **a5.** |  |  |  |  |  |  |

| **Budget category b. Technology (600010) (computers, data projectors, document readers, etc.). Enter requests on lines below. *Click here for examples of technology:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) | | | | | | |
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| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **b1.** | **General Chemistry Entrance Exam software** | **Gaol #2** | **SP 1 & 4** | **3** | **Creating a General Chemistry Entrance Exam requirement initiates the need for software to organize, execute and assess the exam.** | **$20,000.** |
| **b2.** |  |  |  |  |  |  |
| **b3.** |  |  |  |  |  |  |
| **b4.** |  |  |  |  |  |  |
| **b5.** |  |  |  |  |  |  |

| **Budget Category c. Funds for Supplies (400010) (per unit cost is <$500 supplies) *Enter requests on lines below. Click here for examples of Supplies:***  [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](%20http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) | | | | | | | | |
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| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **c1.** | **Budget increase to purchase staple reagents.** | **SLO** | **SP 1 & 4** | **4** | **Chemical reagents are used in nearly ever lab class for every course we offer each semester. New equipment requires new reagents for use.** | **$2,000.** |
| **c2.** |  |  |  |  |  |  |
| **c3.** |  |  |  |  |  |  |
| **c4.** |  |  |  |  |  |  |
| **c5.** |  |  |  |  |  |  |

| **Budget Category d. Funds for Operating Expenses (500010) (printing, travel, maintenance agreements, software license, etc.). *Enter requests on lines below. Click here for examples of Operating Expenses:*** [***http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf***](http://www.palomar.edu/irp/2013CategoriesforPRPResourceRequests.pdf) | | | | | | | | |
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| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include tax, shipping, etc.)** |
| **d1.** | **Maintenance agreement for two (2) Perkin-Elmer FTIR's** | **SLO** | **SP 1 & 4** | **1** | **Maintenance for both of the instruments.** | **$10,000.** |
| **d2.** | **Maintenance agreement for one (1) Agilent GC/MS** | **SLO** | **SP 1 & 4** | **1** | **Maintenance of the instrument.** | **$7,500.** |
| **d3.** | **Airgas rental agreement** | **SLO** | **SP 1 & 4** | **2** | **Gas cylinder rental agreement.** | **$3,300.** |
| **d4.** | **Budget increase for printing costs** | **SLO** | **SP 1 & 4** | **3** | **With an increase in the total number of classes being taught, and students being served, there will be more activities like quizzes and exams.** | **$1,000.** |
| **d5.** | **Deionized water** | **SLO** | **SP 1 & 4** | **1** | **We are funding the deionized water for the entire NS building.** | **$14,080.** |

| **Budget Category e. Funds for temporary or student workers (230010/240010) Enter requests on lines below** | | | | | | | | |
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| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **\* Priority Number for all Resource Request categories** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include benefits)** |
| **e1.** | **Additional funding for student laboratory workers.** | **SLO** | **SP 1 & 4** | **6** | **With the increase in classes being offered the Chemistry Stockroom requires more student workers to be available during the semester.** | **$18,000.** |
| **e2.** |  |  |  |  |  |  |
| **e3.** |  |  |  |  |  |  |
| **e4.** |  |  |  |  |  |  |
| **e5.** |  |  |  |  |  |  |

**STEP V. Classified and administrative (contract) positions requests for academic year 2014-2015**

**Classified, CAST, or Administrator positions:  Enter each position request on the lines below.  You may request up to five (5) positions and they must be prioritized to be considered by IPC.  Contract position requests may include vacancies due to retirements, resignations, lateral transfers, etc., as well as any new positions to be considered.  Please note that only these position requests will be prioritized by IPC when developing the annual Staffing Plan for Instruction.**

| **Resource Category** | **Describe**  **Resource**  **Requested** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Goal Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf) | **Priority Number for Position Requests in Step V Only** | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the College’s Strategic Plan.**  **(If this resource is already funded in part or full, name the source and describe why the source is not sufficient for future funding.** | **Amount of Funding Requested (include benefits)** |
| --- | --- | --- | --- | --- | --- | --- |
| **1.** |  |  |  |  |  |  |
| **2.** |  |  |  |  |  |  |
| **3.** |  |  |  |  |  |  |
| **4.** |  |  |  |  |  |  |
| **5.** |  |  |  |  |  |  |

**Department Chair/Designee Signature Date**

**Division Dean Signature Date**