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| **Biology** | **Date: 12/04/15** |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review.)** |  |

**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.

**Purpose of Program Review and Planning:**

Program Review and Planning for Years 2 and 3 provides a “check-in” on the Year 1 Comprehensive PRP. The PRP documents the vision and planning for a program or discipline. It also provides information for the development of the College’s Strategic Plan goals and annual objectives, documents overarching themes/issues occurring across academic programs and instruction, identifies the needs for resource allocations, and identifies department needs for developing the annual Staffing Plan update.

[**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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| **List everyone who participated in completing this Program Review and Planning Document.**  **Beth Pearson, Jim Gilardi, Mike Deal, Kim Velazquez, Wendy Gideon & Sara Krause** |

**STEP I. Evaluation of Program & SLOAC Data.** In this section, examine and analyze updated program data, the results of SLOACs, and other factors that could influence your program/discipline’s plans for the current year. Consider trends and any changes in the data as they relate to this year’s analysis.

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| 1. **Analysis of Program Data. Review and comment on any significant changes or noted concerns since last year’s PRP.**   **(For enrollment, WSCH, & FTEF data, use Fall term data only).**   * + [Enrollment, Enrollment Load, WSCH, and FTEF](https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Productivity%20Metric%20Summary.aspx)   + [Course Success and Retention Rates](https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Success%20and%20Retention.aspx)   + [Degrees and Certifications](https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Degrees%20and%20Certifications.aspx)   We chose to specifically look at data corresponding to the success rate of students in their first year of college. Those who are first timer’s in the fall have a lower success rate (62.5%) than those who are not new in the fall (70.5%) and they really don’t show any improvement by spring (fall first timers have 60.9% success while non-first timers have 68.7% success).  Thus, we should encourage our students to take advantage of resources offered by the college to improve their study skills and success in our classes.  We can make more of an effort to highlight opportunities and encourage students to set up with a mentoring program, take FYE courses and utilize counseling resources. Perhaps we could have a handout for our first time college students to pass out the first week of classes.  We did a quick check and found that the overall success rate is slightly lower in the spring 67.5% versus 69.5% for all students.   The college as a whole has fairly equal success rates (70.0 fall versus 70.3% spring)  We also looked at how age impacted student success and found that the student’s straight out of high school (<19) have the lowest success rate (65.5%) of any age group and individuals 25-49 have the highest success rate (73.7%).  We personally think that discipline is part of this difference, but this is something that can be taught and encouraged in students. We will continue to consider ways to impact this success and will, at this time, focus on teaching students study skills and discipline techniques in their work. |

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| 1. **SLOACs. Using the comprehensive SLOAC reports and faculty discussions as a guide, summarize your planned SLOAC activities for courses and programs for the current academic year. Link to SLOAC resources:**   In this past year, the faculty for non-major’s biology have participated in an online survey of student learning outcomes in which the data could be easily analyzed and discussed. This new format has provided better access to information and better collaboration amongst faculty but surprisingly lower success rates, 40-50% compared to success rates in the 70% range for the in-class assessments. We will explore the functionality of the Google document we are using and structure of the questions to determine why this assessment method is producing such low success rates. We don't think it is a reflection of students’ failure to grasp the concept because past assessments of the same SLO were much higher. However, we do want to continue to foster this type of participation amongst FT and PT faculty. |

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| 1. **Other Relevant Data and Information.** 2. **Review other data and/or information that you included in last year’s assessment of your program (see Step II.C). (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). Describe other data and/or information that you have considered as part of the assessment of your program. If there is additional information you are using to assess your program this year, also describe that information here.**   n/a   1. **Given this updated 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.**   n/a |

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| 1. **Labor Market Data. For Career/Technical disciplines only, review and comment on any significant changes or concerns since last year’s PRP. (See Step II.D). This data is 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.)**   n/a |

**STEP II. Progress on Previous Year’s Goals and Plans** (See ”Step III - Updated Goals and Plans” in your completed 2014-15 PRP at <http://www.palomar.edu/irp/PRPCollection.htm>).

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| **Discuss/Summarize progress on last year’s goals. Include**   1. **the impact on resources allocated and utilized;** 2. **any new developments or concerns that are affecting the program;** 3. **any new goals for the program; and** 4. **other information you would like to share.**   Goal #1 Develop our SLOACs  We continue to improve our assessments in both course and program SLOs. Gene Gushansky deserves the lion's share of the credit for encouraging faculty to update the data in Tracdat, administering program SLOs with Richard Albistegui-Dubois and identifying courses that need attention. We have been succesful in getting participation from both PT and FT faculty.  Goal #2 Implement new and relevant laboratory activities  Jim Gilardi has obtained training and funding to bring DNA barcoding to our Bio 200 course. This represents a huge accomplishment in making sure our students get a comparable course experience to a university class. These students are participating in an international DNA barcoding project aimed at improving the documentation and tracking of biodiversity. Students are learning relevant laboratory skills including Polymerase Chain Reaction, DNA extraction, PCR purification, sequencing and bioinformatics. Our department received a lot of support for this goal in the past year, and Jim Gilardi obtained an NSF grant to help cover the costs of offering DNA barcoding in all sections of Bio 200.  Goal #3 Offer a low-cost field course to our students.  We were unable to offer a summer field course this past year because one of our key faculty was out of the country. We will attempt to offer this field course again this summer.  Goal #4 Help develop the Village Mentoring Project  Beth Pearson is still participating in this mentoring project, but wider participation has not been achieved. There appears to be another mentoring project in the works, and I think faculty are confused with, now, three different mentoring opportunities. Most of the Life Science faculty are choosing to be STEM mentors. |

**STEP III. Resources Requested for FY 2015-16:** Now that you have completed Steps I and II, Step III requires you to identify all additional resources you will need to achieve goals, plans and strategies for Step II. 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. Resource requests to simply replace budget cuts from previous years will not be considered. Negotiated items should not be included in any resources requested. PLEASE NOTE THAT ALL FUNDING ALLOCATED BY IPC IS ONE-TIME AND MUST BE SPENT WITHIN THE DEFINED TIMELINE. Requests that support more than one discipline should be included on the “Academic Department Resource Requests” PRP form only. Click here for examples of [*Budget Category*](http://www.palomar.edu/irp/Document%20Library/PRP%20Budget%20Category.pdf)*.*

Prioritize within each category and then prioritize across categories in Step IV.

\*Refer to Strategic Plan 2016 Objectives at http://www.palomar.edu/strategicplanning/StrategicPlan2016-Year2.pdf

**Budget category a. Equipment (acct 600010 and per unit cost is >$500). Enter requests on lines below. Click here for examples of equipment:** [**Budget Category**](http://www.palomar.edu/irp/Document%20Library/PRP%20Budget%20Category.pdf)

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include tax, shipping, etc.)** |
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| **a1.** | **Thermo Scientific GENESYS 20 Spectrophotometer** | **600010** | **1,2** | **1,3** | **This equipment is regularly used in Biology 200 and an important lab skill for students to master. We currently have 4 old and unreliable spectrophotometers that need to be replaced.** | **$9560** |
| **a2.** | **VT65MLSSTBADA**  **ADA compliant freestanding medical all-freezer with lock** | **600010** | **1,2** | **1,3** | **The -20 degree freezer we currently have is holding at -5 degrees and needs to be replaced.** | **$1350** |
| **a3.** |  | **600010** |  |  |  |  |
| **a4.** |  | **600010** |  |  |  |  |
| **a5.** |  | **600010** |  |  |  |  |

**Budget category b. Technology (acct 600010, examples: computers, data projectors, document readers). Enter requests on lines below. Click here for examples of technology:** [**Budget Category**](http://www.palomar.edu/irp/Document%20Library/PRP%20Budget%20Category.pdf)

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include tax, shipping, etc.)** |
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| **b1.** |  | **600010** |  |  |  |  |
| **b2.** |  | **600010** |  |  |  |  |
| **b3.** |  | **600010** |  |  |  |  |
| **b4.** |  | **600010** |  |  |  |  |
| **b5.** |  | **600010** |  |  |  |  |

**Budget category c. Supplies (acct 400010 and per unit cost is <$500). Enter requests on lines below. Click here for examples of supplies:** [**Budget Category**](http://www.palomar.edu/irp/Document%20Library/PRP%20Budget%20Category.pdf)

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include tax, shipping, etc.)** |
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| **c1.** | **Advanced High School Animal Survey Set Carolina Item #221272** | **400010** | **1,2** | **1,3** | **The specimens that we are using to study animals in our General Biology course for non-majors are 40 years old and desperately need to b replaced. These will be obtained from a variety of companies that specialize in specimen collection, but mostly from Gulf Marine.** | **$475** |
| **c2.** | **Owl Pellet Regional Variation Inquiry Kit** | **400010** | **1,2** | **1,3** | **Bio 201 would like to incorporate an owl dissection as a technique to explore prey variation and anatomy.** | **$180** |
| **c3.** |  | **400010** |  |  |  |  |
| **c4.** |  | **400010** |  |  |  |  |
| **c5.** |  | **400010** |  |  |  |  |

**Budget category d. Operating Expenses (acct 500010; examples: printing, maintenance agreements, software license) Enter requests on lines below. Click here for examples of operating expense:** [**Budget Category**](http://www.palomar.edu/irp/Document%20Library/PRP%20Budget%20Category.pdf)

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already partially funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include tax, shipping, etc.)** |
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| **d1.** |  | **500010** |  |  |  |  |
| **d2.** |  | **500010** |  |  |  |  |
| **d3.** |  | **500010** |  |  |  |  |
| **d4.** |  | **500010** |  |  |  |  |
| **d5.** |  | **500010** |  |  |  |  |

**Budget category e. Travel Expenses for Faculty (acct 500010: faculty travel only)**

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include benefits if applicable)** |
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| **e1.** |  | **500010** |  |  |  |  |
| **e2.** |  | **500010** |  |  |  |  |
| **e3.** |  | **500010** |  |  |  |  |
| **e4.** |  | **500010** |  |  |  |  |
| **e5.** |  | **500010** |  |  |  |  |

**Budget category f. Short-term hourly (temporary and student worker). Enter requests on lines below.**

| **Priority Number for Resource Requests** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include benefits if applicable)** |
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| **f1.** |  | **230010** |  |  |  |  |
| **f2.** |  | **230010** |  |  |  |  |
| **f3.** |  | **230010** |  |  |  |  |
| **f4.** |  | **230010** |  |  |  |  |
| **f5.** |  | **230010** |  |  |  |  |

**STEP IV. Prioritize Resource Requests.** Now that you have completed Step III, prioritize all of your resource requests 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 six (6) budget categories, you would end up with 30 prioritized requests**. IPC will not consider requests that are not prioritized.** Note that all funding allocated by IPC is one-time and must be spent within the defined timeline.

| **Priority Number for all Resource Requests in Step III** | **Resource Item Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide ~~a~~ detailed rationale for each item. Refer to your goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If item is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include tax, shipping, benefits, etc.)** |
| --- | --- | --- | --- | --- | --- | --- |
| **1.** | **Thermo Scientific GENESYS 20 Spectrophotometer** | **600010** | **1,2** | **1,3** | **This equipment is regularly used in Biology 200 and an important lab skill for students to master. We currently have 4 old and unreliable spectrophotometers that need to be replaced.** | **$9560** |
| **2.** | **VT65MLSSTBADA**  **ADA compliant freestanding medical all-freezer with lock** | **600010** | **1,2** | **1,3** | **The -20 degree freezer we currently have is holding at -5 degrees and needs to be replaced.** | **$1350** |
| **3.** | **Advanced High School Animal Survey Set Carolina Item #221272** | **400010** | **1,2** | **1,3** | **The specimens that we are using to study animals in our General Biology course for non-majors are 40 years old and desperately need to b replaced. These will be obtained from a variety of companies that specialize in specimen collection, but mostly from Gulf Marine** | **$475** |
| **4.** | **Owl Pellet Regional Variation Inquiry Kit** | **400010** | **1,2** | **1,3** | **Bio 201 would like to incorporate an owl dissection as a technique to explore prey variation and anatomy.** | **$180** |
| **5.** |  |  |  |  |  |  |
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**STEP V. Contract Position Requests.** Prioritize all contract positions you feel are needed to achieve goals, plans and strategies identified in Step II. Include all requests for Classified, CAST, and Administrator positions that either replace a vacancy due to retirements, resignations, lateral transfers, etc., or any new positions. You may request up to ten (10) positions and they must be prioritized to be considered by IPC. Please note that only these position requests will be prioritized by IPC when developing the annual Staffing Plan for Instruction.   (Do not include faculty positions.)

| **Priority Number for Contract Position Requests** | **Position Title/Category**  **Requested** | **Fund Category** | **Discipline goal addressed by this resource** | [**Strategic Plan 2016 Objective Addressed by this Resource**](http://www.palomar.edu/strategicplanning/PALOMAR_STRATEGICPLAN2016.pdf)**\*** | **Provide a detailed rationale for the each position. The rationale should refer to your discipline’s goals, plans, analysis of data, SLOACs, and the Strategic Plan. (If position is already funded, name the source and describe why it is not sufficient for future funding.)** | **Amount of Funding Requested (include benefits)** |
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**Department Chair/Designee Signature Date**

**Division Dean Signature Date**