**Palomar College – Program Review and Planning**

**Instructional Programs**

**YEAR 1**

**Academic Year** **2012-13**

**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.)

|  |  |
| --- | --- |
| **Discipline: Oceanography** | **09/11/2012** |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review)** | **Please Add Date (00/00/2012)** |

**STEP I. ANALYSIS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  |  |  | **<<Prelim>>** | ◄▬ Preliminary Fall 2011 data are as of 1/31/2012 |   |
|   |   | **Fall 2008** | **Fall 2009** | **Fall 2010** | **Fall 2011** | **Definitions** |
| **Enrollment at Census** | 662 | 629 | 516 | 627 | *Self Explanatory* |
| **Census Enrollment Load %** | 100.46% | 95.45% | 103.20% | 99.05% | Enrollment at Census Divided By Sum of Caps (aka "Seats") |
| **WSCH** | 2,064 | 1,962 | 1,615 | 1,942 | Weekly Student Contact Hours |
| **FTES** | 68.79 | 65.39 | 53.84 | 64.72 | One Full-Time Equivalent Student = 30 WSCH |
| **Total FTEF** | 3.40 | 3.40 | 2.60 | 3.40 | Total Full-Time Equivalent Faculty |
| **WSCH/FTEF** | 607 | 577 | 621 | 571 | WSCH Generated per Full-Time Equivalent Faculty Member |
| **Full-time FTEF** | 2.40 | 1.60 | 0.60 | 2.40 | FTEF from Contract Faculty |
| **Hourly FTEF** | 0.80 | 1.60 | 2.00 | 1.00 | FTEF from Hourly Faculty |
| **Overload FTEF** | 0.20 | 0.20 | - | - | FTEF from Contract Faculty Overload |
| **Part-Time FTEF** | 1.00 | 1.80 | 2.00 | 1.00 | Hourly FTEF + Overload FTEF |
| **Part-Time/(Total FTEF) %** | 29.41% | 52.94% | 76.92% | 29.41% | Percent of Total FTEF Taught By Part-Time Faculty |
| Student Achievement: **Non Distance Education Courses** |   |   | Those NOT taught via Distance Ed (see below) methods of instruction |
|  **● Retention Rate** | 94.36% | 91.85% | 94.41% | 94.33% | Non-W Eligible Grades (see next line) Divided by All Eligible Grades |
|  **● Success Rate** | 63.64% | 58.45% | 73.12% | 67.23% | A,B,C,CR/P Grades Divided By A,B,C,CR/P,D,F,FW,NC/NP,W Grades |
| Student Achievement: **Distance Education Courses** |   |   | Those taught via Internet, TV or non line-of-sight interactive methods |
|  **● Retention Rate** | 100.00% | 100.00% | - | 93.91% | Non-W Eligible Grades (see next line) Divided by All Eligible Grades |
|  **● Success Rate** | 81.13% | 84.62% | - | 76.52% | A,B,C,CR/P Grades Divided By A,B,C,CR/P,D,F,FW,NC/NP,W Grades |
| **Degrees Awarded** |  - |  - |  - | N/A\* | Degree Counts Are for the Full Academic Year (thus, \*N/A for 2011-12) |
| **Certificates Awarded:** |  - |  - |  - | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2011-12) |
| **- Under 18 Units** |  - |  - |  - | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2011-12) |
| **- 18 or More Units** |  - |  - |  - | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2011-12) |

| **I. A. Reflect upon and provide an analysis of the four years of data above (for a sample analysis see** <http://www.palomar.edu/irp/11PRYear1/sampleforIA.pdf>) |
| --- |
| **The Oceanography Program makes up about 25% of the enrollment in the ESAS department. The Oceanography Program has 3 full-time faculty. Course offerings typically result in Total FTEF of 3.40 for the program. Note that full-time FTEF is below 3.0 (2.4 for Fall 2011) because Dr. Lisa Yon teaches 40% of her load in Earth Science and Patty Deen teaches 20% of her load in Geology.****The decline in the full-time FTEF for Fall 2009 and Fall 2010 is due to Patty Deen's combined 1-year sabbatical leave and 1-year leave of absence (2 years leave total). In addition, Al Trujillo was on a 1-semester sabbatical in Fall 2010. Part-time to Total FTEF reached its highest value (76.92%) during the Fall 2010 semester when both Al Trujillo and Patty Deen were on leave; course offerings were pared, dropping FTES to 2.60. The drop in Part-Time to Total FTEF in Fall 2011 reflects the return of Al Trujillo and Patty Deen and the cuts in class sections available.****Load % remains strong, averaging 100% over the four years. The WSCH/FTEF of 571 for 2011 shows a drop from 2010 values of 621. Review of numbers indicates that the high 2010 value resulted from the fact that no on-line sections were taught, as Al Trujillo was on sabbatical that semester. On-line classes have a lower enrollment cap (32) than non-distance sections (40-60), and thus limits the number of seats available to students.** **The retention rate for all Oceanography courses averages near 94%. Success rates in non-distance courses for Fall 2010 and 2011 averaged 70%, an improvement over success rates of 61% in 2008 and 2009. We ascribe this to the quality of our part-time oceanography instructors, some of whom have taught in the Oceanography Program for many semesters. Success rates in on-line sections average around 80%, a result of Al Trujillo’s incorporation of student learning techniques into the on-line format. Oceanography Program retention and success rates reflect numbers within the ESAS Department and the College as a whole.** |

| **I. B. Please summarize the findings of Course AND Program SLO assessments conducted by your discipline. (For examples, see** <http://www.palomar.edu/irp/11PRYear1/PRPsloExamples.pdf>) |
| --- |
| **Course SLO assessments were conducted during the Fall 2011 semester for Oceanography 100 Lecture and Oceanography 100 Lab.****Oceanography 100 Lecture students participated in an assignment given following the discussion of key concepts related to phytoplankton productivity. Students were then required to evaluate a productivity diagram and determine factors governing productivity patterns. A total of 96 students from three different lecture sections participated in the assessment activity. The percentage of students earning 70% or higher on the assessment was 73%. Slightly different teaching styles may have resulted in different interpretations for some of the questions. Faculty involved in the assessment have agreed to revise the questions for use in future evaluations. Evaluation of the Plate Tectonics SLO is scheduled for Fall of 2012; this is the first time that this SLO is being evaluated. This will be the first time that any SLO has been evaluated in an on-line section of the class.****Oceanography Lab students completed a quiz to assess their understanding of concepts essential to interpreting sea floor bathymetry and basic concepts of navigation. A total of five laboratory sections participated in the assessment involving a total of 85 students. The percentage of students earning 70% or higher on the assessment was 90%. Evaluation of the Tides SLO is scheduled for Fall of 2012; evaluation of this SLO was last conducted in Fall 2010.** |

| **I. C. Reflect upon the SLO assessment findings in Box B above. Discuss overall observations and any areas of concern or noteworthy trends.**  **(For examples of such analysis, see** <http://www.palomar.edu/irp/11PRYear1/PRPsloExamples.pdf>) |
| --- |
| **Students have met goals set in all evaluations. Discussion by faculty of results of the Productivity SLO in various classes will lead to changes in instruction to increase student learning in all sections of Oceanography 100.** **Students in Oceanography lab were highly successful in meeting the goals of the Bathymetry SLO.**  |

| **I. D. For Career Technical disciplines only, please provide a brief summary of the labor market outlook. This data can be found at** [**http://www.labormarketinfo.edd.ca.gov/**](http://www.labormarketinfo.edd.ca.gov/) **Please include job projections and trends that may influence major curriculum revisions.** |
| --- |
| **Not applicable.** |

|  |
| --- |
| **STEP II. PLANNING****Reflecting on the 4-year trend data, the SLO assessment results, and the college’s** [**Strategic Plan 2013**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**, describe/discuss the discipline planning related to the following: (For sample reflections, see** <http://www.palomar.edu/irp/11PRYear1/samplesforII.pdf>) |

| **II. A. Curriculum, programs, certificates and degrees (consider changes due to Title 5 or other regulations, CSU/UC transfer language updates, articulation updates, student retention or success rates, workforce and labor market projections, certificate or degree completions, etc.)** |
| --- |
| **The Oceanography Program began on-line course offerings in Fall 2008; of 11 lecture sections offered, two sections were online. Success of these courses (100% Retention Rate, 81% Success Rate), the reach of on-line courses to a broader community of learners, and a reduction of Palomar College programs at education centers has resulted in the commitment by the Oceanography Program to on-line course offerings. Beginning in Spring 2011, online offerings increased to a total of four sections, and currently make up 36% of Oceanography lecture offerings.****We are pleased that one of our adjunct instructors has recently completed the preparation for teaching on-line courses through Academic Technology and will be able to step into that role when Al Trujillo is on leave; no on-line sections were taught while he was on sabbatical. Concerns do remain regarding the balance between on-line and traditional offerings due to the 32-student cap for on-line courses and its affect on WSCH/FTEF (see 1A).**  |

| **II. B. Class scheduling (consider enrollment trends, growth, course rotation, sequencing, Center/Site offerings, comprehensiveness, etc.)** |
| --- |
| **Potential growth within the Oceanography Program exists in conjunction with the opening of the Rancho Bernardo and Fallbrook sites. This will include not only OCN 100 lecture sections, but also lab sections should facilities be adequate. The time frame for the opening of these sites is currently unknown due to budget concerns.****The total number of sections of OCN 100 lecture and lab (11 and 6 respectively) seems to be appropriately based on Load % and has been offered for several years.** **Budget concerns have led to the removal of most field courses from class offerings. We believe that field courses provide a very important learning experience not available in the classroom. Field courses also fill an important need for students who are looking for coursework beyond the introductory lecture course and such courses build a bridge between oceanography and other disciplines within the ESAS Department by exposing students to concepts related to geology and geography. Thus, we would like to be able to offer OCN 195 (Field Studies) once per year.** **Due to increasing travel costs, maintaining field trips within our lab classes will be a challenge. However, we are committed to maintaining a strong field component within our lab courses due to their pedogogical value in application of topics within the lecture course and SLOs.** |

| **II. C. Faculty (Briefly discuss the faculty hiring needs for this discipline. This discussion does not replace the requirement to submit a Rationale Form for Faculty Hiring to IPC.)** |
| --- |
| **The Oceanography Program currently consists of three full-time faculty. Although two faculty members (Patty Deen and Dr. Lisa Yon) also teach Earth Science and Geology (40% load and 20% load, respectively), there is currently no need for additional full-time faculty to be hired for the Oceanography Program. This may change with the opening of the Rancho Bernardo and Fallbrook sites, but the timing of the opening of these sites remains uncertain.** |

|  |
| --- |
| **STEP III. RESOURCE REQUESTS FOR DISCIPLINE:**  |
| **III. A. Describe the resources necessary to successfully implement the planning described above. Provide a detailed rationale for each request by referring to the analyses of data and SLO assessment results in Step I and/or to any other evidence not apparent in the data or SLO Assessment** results. NOTE: Do **NOT** include Resource Requests that duplicate requests from other disciplines In your department. Place requests common to two or more disciplines on the form: ACADEMIC DEPARTMENT RESOURCE REQUESTS. |

| **a. Equipment (per unit cost is >$500) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **a1.**  | **New, wider lab tables with chemical resistant top for Escondido Rm EC-402** | **1** | **G5/O5.2** | **Lab activites are hindered by the existing narrow tables; it also increases the safety and secturity of the lab.** | **$8742.37 as per quote** | **one-time** | **Potential funding from the Vice President of Instruction** |
| **a2.**  | **New rolling chairs for Escondido Rm EC-402** | **2** | **G5/O5.2** | **Rolling chairs allow students better access to lab equipment and maps on tables; it also increases the safety and security of the lab.**  | **$2512.57 as per quote** | **one-time** | **Potential funding from the VIce President of Instruction** |
| **a3.**  | **Classroom clickers for the Escondido Center.** | **3** | **G2/O2.4****G6/O6.1** | **The use of classroom clickers addresses Goal 6 on Strategic Plan: Optimize the technological environment.**  | **$1500** | **one-time** | **Funded through STEM grant.** |
| **a4.**  |  |  |  |  |  |  |  |
| **a5.**  |  |  |  |  |  |  |  |

| **b. Technology (computers, data projectors, document readers, etc.) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **b1.**  | **See department request** |  |  |  |  |  |  |
| **b2.**  |  |  |  |  |  |  |  |
| **b3.**  |  |  |  |  |  |  |  |
| **b4.**  |  |  |  |  |  |  |  |
| **b5.**  |  |  |  |  |  |  |  |

| **c. Budget for 4000s (per unit cost is <$500 supplies) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **c1.**  | **Current funding level is $1200** |  |  |  |  |  | **This is current level and is adequate. At this time, it is all lottery funds.** |
| **c2.**  |  |  |  |  |  |  |  |
| **c3.**  |  |  |  |  |  |  |  |
| **c4** |  |  |  |  |  |  |  |
| **c5.**  |  |  |  |  |  |  |  |

|  **d. Budget for 5000s (printing, maintenance agreements, software license etc.) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **d1.**  | **Printing** | **1** | **G2/O2.4** | **Tests and handouts in classes. Current funding is $1,849 and is not sufficient for typical Ocean 100 Lecture and Ocean 100 Lab expenses.** | **$651** | **on-going** | **Current funding will not be sufficient. We need a total of $2500 to meet the needs of all instructors.** |
| **d2.**  | **Travel with students** | **2** | **G2/O2.4** | **Field trips (plus, see above)** | **included in $651 from above** | **on-going** | **same as above** |
| **d3.**  | **Misc. (postage, etc.)** | **3** | **G2/O2.4** | **Support (plus, see above)** | **included in $651 from above** | **on-going** | **same as above** |
| **d4.**  | **Travel with students for Oceanography 195 field course** | **4** | **G2/O2.4** | **The future offering of Oceanography 195 (field studies) will require additiontal travel with students funds.** | **$400** | **on-going** | **not funded** |
| **d5.**  |  |  |  |  |  |  |  |

|  **e. Classified staff position (permanent/contract position requests unique to this discipline) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **e1.**  | **Not applicable** |  |  |  |  |  |  |
| **e2.**  |  |  |  |  |  |  |  |
| **e3.**  |  |  |  |  |  |  |  |
| **e4.**  |  |  |  |  |  |  |  |
| **e5.**  |  |  |  |  |  |  |  |

| **f. Classified staff position (temporary and student workers position requests unique to this discipline) *Enter requests on lines below.*** |
| --- |
| **Resource**  | **Describe Resource Requested** | **Prioritize these requests****1,2,3, etc.** | **Strategic Plan 2013 Goal/****Objective Addressed by This Resource****(**[**Link**](http://www.palomar.edu/strategicplanning/STRATEGICPLAN2013.pdf)**)**  | **Provide a detailed rationale for the requested resource. The rationale should refer to your discipline’s plan, analysis of data, SLO assessments, and/or the College’s Strategic Plan** | **Estimated Amount of Funding Requested** | **Will this be one-time or on-going funding?** | **Is resource already funded (in part or in full)? If so, name source. Why is that source not sufficient for future funding?** |
| **f1.**  | **Not applicable** |  |  |  |  |  |  |
| **f2.**  |  |  |  |  |  |  |  |
| **f3.**  |  |  |  |  |  |  |  |
| **f4.**  |  |  |  |  |  |  |  |
| **f5.**  |  |  |  |  |  |  |  |

| **III. B. Are there other resources (including data) that you need to complete your discipline review and planning?** |
| --- |
| **No** |

|  |
| --- |
| **STEP IV. SHARE YOUR ACCOMPLISHMENTS (AKA Brag, Toot your horn) Please include at least one discipline accomplishment that you’d like to share with the college community.** |
| **The full-time oceanography faculty continue to publish our own oceanography lab manual (Laboratory and Field Exercises in Oceanography). Dr. Lisa Yon and Patty Deen completed revisions and updates in July, 2012 making the 8th Edition available for use during the Fall 2012 semester. Al Trujillo maintains his own version of the Oceanography 100 Lab Manual, which is available to students online at the course Blackboard site and is updated regularly.****Al Trujillo is the author of the world's market-leading college-level oceanography textbook Essentials of Oceanography, 10th Edition (© 2011 Pearson Education). In 2012, the book received a prestigious “Texty” award for textbook excellence from the Text and Academic Authors Association. Al has been working on updating and revising the book into its 11th edition, which will be published in February 2013. During the past academic year, Al has attended several On Course workshops as participant and assistant facilitator, including the On Course National Conference. He currently serves as a resource specialist and facilitator for helping Palomar instructors use and adapt On Course active learning techniques in their classrooms. Al also serves on several nationwide Geoscience Education Review Boards, including the National Science Foundation (NSF), On the Cutting Edge, the Science Education Research Center (SERC), and the Ocean Observatories Initiative. He continues to participate in various outreach activities within the district to benefit the local community, such as Encuentros at Palomar, Career Day at High Tech High in San Marcos, and Super Science Saturday at The Classical Academy in Escondido. He also co-leads a Palomar College Professional Development workshop on climate change. Al continues to work as a naturalist and lecturer aboard expedition vessels in Alaska and in the Sea of Cortez for National Geographic/Lindblad Expeditions. In addition, he has been invited to co-lead an On the Cutting Edge geoscience education workshop about best practices in teaching oceanography (June 2013) and to participate in an oceanographic research cruise off Washington to forge strong collaborations with researchers (Summer 2014; the chief scientist, Dr. Kerry Key, is a Palomar College alumni and now a researcher at Scripps Institution of Oceanography; he specifically requested a Palomar College Oceanography instructor to help address the broader impacts component for NSF, which is the funding agency).****Dr. Lisa Yon continues to be active in public outreach programs. Dr. Yon's involvement with science activities within the Palomar College District service area has served as a means for evaluating the science background of potential Palomar College students. National surveys have indicated that a lack of interest in science is often due to a lack of opportunities being provided to students. In order to meet this need, Dr. Yon continues to serve in an advisory capacity for the San Diego Regional Science Olympiad as well as serving as an Earth Science/Oceanography event coach for Science Olympiad students within the Poway Unified School District. In her efforts to remain current with secondary level science standards and changing methods of instruction and evaluation for all levels, Dr. Yon is a member of the National Science Teachers Association and the California Science Teachers Association and attends their annual meetings. As a member of these groups, she has participated in the first review of the “Next Generation Science Standards (NGSS)” which occurred during May 2012. The second review process will occur during Fall 2012. Revision of the California State Science Standards will affect the level of preparation of incoming Palomar College students and thus impact the development and revision of Palomar College science courses.** |

| **STEP V. ACCREDITATION For programs with an external accreditation, indicate the date of the last accreditation visit and discuss recommendations and progress made on the recommendations.** |
| --- |
| **WASC ignored our department in their last review of Palomar and the Oceanography Program has no formal accrediting agency.** |

| **STEP VI. COMMENTS Other comments, recommendations: (Please use this space for additional comments or recommendations that don’t fit in any category above.)** |
| --- |
| **We look forward to the renewal of the Oceanography Guest Speaker Program given the opening of the Palomar College Planetarium, which provides a venue to accommodate up to 140 people.** **Field trips are a key part of the Oceanography Lab curriculum. Continued funding for mileage to instructors is critical to provide students with these exceptional learning experiences.** **For reasons mentioned above, we strongly suggest that Oceanography 195 (Field Studies) be offered on a regular basis (once per year).****The refurbished laptop computers provided by Palomar College Information Systems (IS) to the ESAS Department serve a very important role in Oceanography 100 Lab. In fact, we have written curriculum specifically designed to utilize these laptops. As such, we request that IS provide us with updated laptops as they become available through their refurbishment program. This will allow us to further update the content of our labs and update curriculum to use more advanced programs.** |

|  |
| --- |
| **Please identify faculty and staff who participated in the development of the plan for this department:** |
| **Patricia Deen*Name*** | **Al Trujillo*Name*** | **Dr. Lisa Yon*Name*** |

|  |  |  |
| --- | --- | --- |
| **Doug Key*Name*** | ***Name*** | ***Name*** |

**Department Chair/Designee Signature Date**

**Division Dean Signature Date**

* **Provide a hard copy to the Division Dean no later than September 14, 2012**
* **Provide a hard copy with the Dean’s sign-off to Instructional Services by September 28, 2012**
* **Email an electronic copy to** **jdecker@palomar.edu** **by September 28, 2012**