**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.)

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| **Discipline: Zoology** | **09/12/12** |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review)** | **Please Add Date (00/00/2012)** |

**STEP I. ANALYSIS**

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|   |   |  |  |  | **<<Prelim>>** | ◄▬ Preliminary Fall 2011 data are as of 1/31/2012 |   |
|   |   | **Fall 2008** | **Fall 2009** | **Fall 2010** | **Fall 2011** | **Definitions** |
| **Enrollment at Census** | 762 | 855 | 839 | 950 | *Self Explanatory* |
| **Census Enrollment Load %** | 105.54% | 106.26% | 105.01% | 109.36% | Enrollment at Census Divided By Sum of Caps (aka "Seats") |
| **WSCH** | 3,127 | 3,426 | 3,403 | 3,776 | Weekly Student Contact Hours |
| **FTES** | 104.24 | 114.21 | 113.43 | 125.86 | One Full-Time Equivalent Student = 30 WSCH |
| **Total FTEF** | 6.00 | 6.20 | 6.20 | 6.60 | Total Full-Time Equivalent Faculty |
| **WSCH/FTEF** | 521 | 553 | 549 | 572 | WSCH Generated per Full-Time Equivalent Faculty Member |
| **Full-time FTEF** | 3.60 | 3.80 | 3.60 | 3.40 | FTEF from Contract Faculty |
| **Hourly FTEF** | 1.00 | 1.40 | 1.00 | 2.00 | FTEF from Hourly Faculty |
| **Overload FTEF** | 1.40 | 1.00 | 1.60 | 1.20 | FTEF from Contract Faculty Overload |
| **Part-Time FTEF** | 2.40 | 2.40 | 2.60 | 3.20 | Hourly FTEF + Overload FTEF |
| **Part-Time/(Total FTEF) %** | 40.00% | 38.69% | 41.95% | 48.48% | 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** | 93.99% | 93.23% | 91.52% | 92.10% | Non-W Eligible Grades (see next line) Divided by All Eligible Grades |
|  **● Success Rate** | 66.59% | 62.97% | 74.76% | 62.86% | 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** | - | - | - | - | Non-W Eligible Grades (see next line) Divided by All Eligible Grades |
|  **● Success Rate** | - | - | - | - | 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>) |
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| **We continue to have a remarkable high demand for our Zoology courses driven by students seeking to complete pre-requisites for AA and BS degrees in nursing as well as other medical fields. The number of crashers for every class, every semester continues to frustrate both our students & faculty as the number of our course offerings do not meet the needs of our students. In the 2011-12 term, we offered four sections of anatomy in the fall and five in the spring. We are doing the same this term. The five sections closed as quickly as the four, within the first two days of registration. Fortunately, we have the space to offer more sections, but lack the funding and personnel has prevented us from offering more sections.****Although our courses are demanding, requiring significant amounts of time and effort to be successful, we continue to have remarkable retention and success rates.**  |

| **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>) |
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| **I.B.1 Summarize Course SLO assessment results beginning on the next line.****SLO assessment results for ZOO 145L.****For the SLO, “Students will be able to recognize basic histology samples.” Assessment results for Introduction to Human Anatomy and Physiology Laboratory (Spring 2012)****Schmid – 78.2%****Monahan – 72%****For the SLO, “Students will be able to properly apply directional and regional terminology to describe anatomical features.” Assessment results for Introduction to Human Anatomy and Physiology Laboratory (Spring 2012)****Schmid – 86.6%****Monahan – 70.5%****For the SLO, “Students will demonstrate a detailed comprehension of the gross anatomy of the organ systems.” Assessment results for Introduction to Human Anatomy and Physiology Laboratory (Spring 2012)****Schmid - 76.6%****Monahan - 83.7%****SLO assessment results for ZOO 145****SLO assessments for ZOO 145 are within the predicted range (>75%)****SLO assessment results for Human Anatomy (Fall 2011)****Carpenter - Sp 11 75%, F11 79%****Gushansky – Sp 11 76%, F11 85%** **I.B.2 Summarize Program SLO assessment results beginning on the next line.****Our department implemented our first program SLO in the Spring of 2012. This involved the discussion amongst faculty of the proper wording of assessment questions. This dialogue was both thought provoking and productive. Assessments among courses implementing the SLO ranged from 60.24-70.18 but a single question with results in the 40% range brought the average of the other 9 questions (78%) down.**  |

| **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>) |
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| **I.C.1 Please reflect upon the Course SLO findings in Box B (above) beginning on the next line.****Yes, no change necessary** **ZOO 145L SLO results for the Spring 2012 assessment were consistent amongst all instructors and within the predicted range.** **ZOO 145 SLO results for the Fall 2011 assessment were consistently within the predicted range. The Spring 2012 assessment will be evaluated in Fall 2012.****SLO results for the 2011 assessment cycle were consistent amongst both instructors (8 sections) and within the predicted range.**  **I.C.2 And, please reflect upon the Program SLO findings in Box B beginning on the next line.****Our first run through a program SLO was a great learning experience at all levels. We are working to revise our questions to accommodate different teaching styles and to improve consistency across our diverse courses.** |

| **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.** |
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| **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.)** |
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| **In an effort to help the nursing program meet strict unit limits, the Life Science faculty have revised our course sequence and pre-requisites for ZOO 203 and 200. We have eliminated the biology and chemistry (or Biology 102) pre requisite for students who enroll in Zoology 200 first. Zoo 200 is required before ZOO 203, and ZOO 203 is required to take Micro 200. We believe this sequence will produce the best success in the absence of the preferred prerequisites. These curriculum changes are in progress. The curriculum review for ZOO145 and ZOO 145L are in progress. The first round of SLO assessment is complete. The next step in the review process will be to compare the curriculum, and how it is presented by the various instructors, with the requirements of the EME program.**  |

| **II. B. Class scheduling (consider enrollment trends, growth, course rotation, sequencing, Center/Site offerings, comprehensiveness, etc.)** |
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| **With a huge demand for our courses, we would like to offer 2 more sections of ZOO 203 and ZOO 200 in both Spring and Fall. A summer anatomy course should also be a priority! Ideally, we would like to offer the course on MWF for 10 weeks; students had better success in this format than the 8 week session.** |

| **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.)** |
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| **One of our full-time ZOO 203 instructors retired after the spring 2012 term. With his departure, the four fall sections of ZOO 203 are being taught by two full-time faculty member and one adjunct; in the spring, all four sections will be taught by two full-time faculty members, as one of our full-time instructors who has taught anatomy exclusively in the spring will now be teaching two sections of physiology. Regardless, our need for another full-time instructor who can teach physiology remains unabated: the lab equipment used in the course is complex, and finding adjunct instructors who are skilled in its use is difficult. Such a future hire will also be expected to teach anatomy, given that at least one section of spring anatomy will now be taught by Part Time Faculty.**  |

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| **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.*** |
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| **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.**  | **1 Teaching Microscope with Camera (Microscope: Olympus cx41)****(Camera: Micofire (from Optronics))**  | **2** | **2,5,6** | **The teaching microscope is integral for presentation of histology to anatomy students. Histology is a key concept as well as a SLO for this course. The microscope camera is required to use the teaching microscope in the classroom. This system will be in addition to the 3 the department already owns and allow it to be dedicated to the anatomy lab rather than moved around the department and shared with our other biology courses** | **($3,000 for scope +****$5,500 for camera)****=****$8,500** | **on-going****(10-year for scope and 5-year for camera)** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.** |
| **a2.**  | **2 disarticulated human bone sets** | **3** | **2,5,6** | **The study of individual bones is an integral component of the course. Achievment of the Gross Anatomy SLO for the course is greatly fascilitated through study of the disarticulated specimens.** | **($1000x2)****=$2000** | **one-time** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.**  |
| **a3.**  | **1 Human cadaver** | **4** | **2,5,6** | **A human cadaver is an integral component of the course. Achievement of the Gross Anatomy SLO for the course is greatly fascilitated through study of the human specimen.**  | **$4,000** | **on-going** **(on yearly cycle)** | **Yes. One time funding from the Palomar Foundation for 2011.** |
| **a4.**  | **10 PowerLab Systems for Zoo 203**  | **1** | **2,5,6** | **The full human physiology laboratory is based upon the use of these highly specialized units to collect and interpret physiologic responses. This equipment is fragile and complex and needs an on going replacement plan. This is our single largest expense for this course** | **($7,500x10)** **= $75,000** | **on- going** **(5-7 year cycle)** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.**  |
| **a5.**  |  |  |  |  |  |  |  |

| **b. Technology (computers, data projectors, document readers, etc.) *Enter requests on lines below.*** |
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| **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.**  | **2 Presentation stations to replace the one in NS-316 and place a new station in the Escondido center** | **1** | **2,5,6** | **The digital presentation station is used to project demonstrations onto the screen and is important for teaching detailed gross- anatomy and in keeping with our Gross Anatomy course SLO.**  | **($1,800 x 2 ) = $3,600** | **on-going (5-year cycle)** | **No, item is more expensive than our budget category can fund. This is a one time request that will not need replacement for many years.**  |
| **b2.**  | **1 USB Microscope Live Video Photo Digital Camera w/ Calibration Kit** | **2** | **2,5,6** | **Instructors use video cameras in class to demonstrate cell structure and, more importantly, activity to students .**  | **$388** |  | **No, item is more expensive than our budget category can fund. This is a one time request that will not need replacement for many years.**  |
| **b3.**  |  |  |  |  |  |  |  |
| **b4.**  |  |  |  |  |  |  |  |
| **b5.**  |  |  |  |  |  |  |  |

| **c. Budget for 4000s (per unit cost is <$500 supplies) *Enter requests on lines below.*** |
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| **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.**  | **PowerLab transducer replacement and repair $ 100 - $ 350 each unit** | **1** | **2,5,6** | **Tranducers are sensors and attachments that are used with the PowerLab systems. They are electrode leads that measure grip force, pulse/pressure, galvanic skin response nd other physiological aspects. They are fragile and although students are very careful they break and fail with normal use.**  | **$1,200 is a fair estimate for re-placement and repair of the PowerLab transducers** | **on-going on a yearly basis** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.**  |
| **c2.**  | **Sheep hearts, brains, and eyeballs**  | **2** | **2,5,6** | **Sheep organs are relativly close in proportions to human specimens and are required for the study of anatomy. They are required for accomplishing the Gross Anatomy course SLOs.**  | **$1,000** | **on-going****(3-year cycle)** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.** |
| **c3.**  | **Preserved feline and marine specimens** | **3** | **2,5,6** | **Feline and marine specimens are an important tool for studying gross anatomy. They are required for accomplishing the Gross Anatomy course SLOs.**  | **$2,000** | **on-going****(3-year cycle)** | **No, item is more expensive than our budget category can fund along with other on going expenses. This is a one time request that will not need replacement for many years.**  |
| **c4** |  |  |  |  |  |  |  |
| **c5.**  |  |  |  |  |  |  |  |

|  **d. Budget for 5000s (printing, maintenance agreements, software license etc.) *Enter requests on lines below.*** |
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| **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.**  |  |  |  |  |  |  |  |
| **d2.**  |  |  |  |  |  |  |  |
| **d3.**  |  |  |  |  |  |  |  |
| **d4.**  |  |  |  |  |  |  |  |
| **d5.**  |  |  |  |  |  |  |  |

|  **e. Classified staff position (permanent/contract position requests unique to this discipline) *Enter requests on lines below.*** |
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| **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.**  |  |  |  |  |  |  |  |
| **e2.**  |  |  |  |  |  |  |  |
| **e3.**  |  |  |  |  |  |  |  |
| **e4.**  |  |  |  |  |  |  |  |
| **e5.**  |  |  |  |  |  |  |  |

| **f. Classified staff position (temporary and student workers position requests unique to this discipline) *Enter requests on lines below.*** |
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| **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.**  |  |  |  |  |  |  |  |
| **f2.**  |  |  |  |  |  |  |  |
| **f3.**  |  |  |  |  |  |  |  |
| **f4.**  |  |  |  |  |  |  |  |
| **f5.**  |  |  |  |  |  |  |  |

| **III. B. Are there other resources (including data) that you need to complete your discipline review and planning?** |
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| **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.** |
| **Our Zoology instructors continue to deliver amazing instruction to their appreciative students. They are dedicated individuals who go above and beond for their students. Our faculty have participated in the STEM activities to increase student success. Gene Gushansky developed a new and better ZOO 200 lab manual.**  |

| **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.** |
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| **STEP VI. COMMENTS Other comments, recommendations: (Please use this space for additional comments or recommendations that don’t fit in any category above.)** |
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| **Please identify faculty and staff who participated in the development of the plan for this department:** |
| **Gene Gushansky*Name*** | **Carey Carpenter*Name*** | **Richard Albistegui-DuBois*Name*** |

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| **Elizabeth Pearson - Department Chair*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**