**Palomar College – Program Review and Planning**

**Instructional Programs**

**YEAR 1**

**Academic Year** **2010-11**

**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: Networking** | **3/11/11** |
| **Instructional Discipline Reviewed (Each discipline is required to complete a Program Review)** | **Please Add Date (00/00/2011)** |

**STEP I. ANALYSIS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  |  |  | **<<Prelim>>** | ◄▬ Preliminary Fall 2010 data are as of 1/30/2011 |   |
|   |   | **Fall 2007** | **Fall 2008** | **Fall 2009** | **Fall 2010** | **Definitions** |
| **Enrollment at Census** | 343 | 302 | 570 | 589 | *Self Explanatory* |
| **Census Enrollment Load %** | 61.03% | 85.80% | 96.94% | 91.46% | Enrollment at Census Divided By Sum of Caps (aka "Seats") |
| **WSCH** | 721 | 629 | 1,212 | 1,357 | Weekly Student Contact Hours |
| **FTES** | 24.02 | 20.98 | 40.39 | 45.24 | One Full-Time Equivalent Student = 30 WSCH |
| **Total FTEF** | 2.77 | 1.73 | 2.90 | 3.43 | Total Full-Time Equivalent Faculty |
| **WSCH/FTEF** | 260 | 363 | 418 | 395 | WSCH Generated per Full-Time Equivalent Faculty Member |
| **Full-time FTEF** | 0.20 | 0.20 | - | - | FTEF from Contract Faculty |
| **Hourly FTEF** | 2.47 | 1.43 | 2.90 | 3.43 | FTEF from Hourly Faculty |
| **Overload FTEF** | 0.10 | 0.10 | - | - | FTEF from Contract Faculty Overload |
| **Part-Time FTEF** | 2.57 | 1.53 | 2.90 | 3.43 | Hourly FTEF + Overload FTEF |
| **Part-Time/(Total FTEF) %** | 92.77% | 88.46% | 100.00% | 100.00% | 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** | 93.04% | 92.70% | 96.40% | 95.29% | Non-W Eligible Grades (see next line) Divided by All Eligible Grades |
|  **● Success Rate** | 75.95% | 68.61% | 78.40% | 83.33% | 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** |  - | 1 | 1 | N/A\* | Degree Counts Are for the Full Academic Year (thus, \*N/A for 2010-11) |
| **Certificates Awarded:** |  - | 5 | 7 | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2010-11) |
| **- Under 18 Units** |  - | 4 | 5 | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2010-11) |
| **- 18 or More Units** |  - | 1 | 2 | N/A\* | Certificate Counts Are for the Full Academic Year (\*N/A for 2010-11) |

| **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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| **Areas of enrollment, student retention and student success are growing substantially in the Computer Networking Administration Degrees. This year, students are just beginning to complete the entire A.A. degree curriculum. The department is expecting to have many more graduating student with A.A. degrees from this year and on.** **Growth in the industry is fueling a large growth in enrollment in the networking section of the department. All classes are running, full, and there currently is need to add additional courses in this discipline. According to http://www.labormarketinfo.edd.ca.gov, Computer Networking Systems and Data Communications will be the #1, largest growing field from 2008-2018 with an expected 44% change. Home Health Aides are second at only 38% growth. The data of the past four years reflects this trend, and the field is expected to continue to grow rapidly.** **We simply need to add more course and more sections of each course in this field if we want to stay competetive as an educational instituation in the field of Computer Networking.****In addition, the students in this program are very dedicated and tend to stay with the program for multiple topics in this field. Many students move on to more advanced courses and certifications as shown in the very high student success and retention rates over the past 4 years. We are gaining more students, keeping them longer, and they are successfully completing their courses.** |

| **I. B. Please summarize the findings of a Course or Program SLO assessment conducted by your discipline. (For examples, see** <http://www.palomar.edu/irp/11PRYear1/PRPsloExamples.pdf>) |
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| **Course and Program Assesment is ongoing and the first cycle will be complete at the end of the Spring 2011 Semester. Will revise at that time. However, we have been reviewing the assessment surveys embedded in the CSNT 260 and CSNT 261 courses. We have based our course objectives and SLO on industry exam objectives for the CCNA exam. We are finding the student strongly agree that they are prepared and feel confident planning, building, maintaining, and documenting a small to mid-sized computer network. This was one of our SLOs for these courses.** |

| **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>) |
| --- |
| **Course and Program Assesment is ongoing and the first cycle will be complete at the end of the Spring 2011 Semester. Will revise at that time.****However, receiving feedback from the students in the CSNT 260 and CSNT261, students have expressed that they were lacking the amounts and types of equipment to be fully prepared for this field. In addition, students expressed that our discipline was lacking dedicated lab time in which the students could work outside of class.** |

| **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.** |
| --- |
| **According to http://www.labormarketinfo.edd.ca.gov, Computer Networking Systems and Data Communications will be the #1, largest growing field from 2008-2018 with an expected 44% change in San Diego and 50.8% in the state of California. Home Health Aides are second at only 38% growth. The data of the past four years reflects this trend, and the field is expected to continue to grow rapidly.** **We simply need to add more course and more sections of each course in this field if we want to stay competetive as an educational instituation in the field of Computer Networking.** |

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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.)** |
| --- |
| **We plan to cut the units of all 3 A.A. Degree emphasis down to 30 degree specific units. By the 2012 curriculum process, we will have change the following A.A. Degrees:****Computer Network Administration - Microsoft and Cisco to Computer Network Administration - Microsoft****Computer Network Administration - Microsoft and Linux to Computer Network Administration - Linux****Computer Network Administration - Linux and Cisco to Computer Network Administration - Cisco****If resources are available from the Palomar, we plan to add an additional degree emphasis in Computer Network Administration - Residential and Commercial Wiring and Automation. Currently, growth restrictions in class sections and resource allocation restrictions have halted the plans to add this new degree emphasis.** |

| **II. B. Class scheduling (consider enrollment trends, growth, course rotation, sequencing, Center/Site offerings, comprehensiveness, etc.)** |
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| **Currently, this discipline is filling all classes offered, many with multiple sections. The department has not advertised this discipline, yet it is extremely popular, primarily due to the growth in the market. It is the #1 growing field in California! So far, we have not been allowed to add additional sections of classes to this discipline. If allowed, this discipline would support twice the number of sections with additional new topic courses such as Voice over IP, Wiring Infrastructure, VMware, and Automation.****Currently, many of our classes are only running once per year, they need to be offered each semester. However, we have not been allowed to add additional sections even though this is a highly popular field and these sections would fill.****Currently, this discipline has no distance education classes. There is a need for online and hybrid courses. However, we are not able to run distance education courses, because we are not able to add any additional sections. We can not take current sections and place them online, because we would then not meet the required room utilization rates, thus losing important laboratories. In other words, this very popular and needed discipline has not been allowed to grow, even though there is a high demand for it.** |

| **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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| **Our department has lost 3 full time faculty members in the past 6 years due to retirement. Our department has had no new hires of Full Time Faculty members during that time. This discipline in particular, if allowed to grow, would need multiple adjunct professors and one additional full time faculty member.** |

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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.*** |
| --- |
| **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.**  |  |  |  |  |  |  |  |
| **a2.**  |  |  |  |  |  |  |  |
| **a3.**  |  |  |  |  |  |  |  |
| **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.**  | **Various misc equipment which unit cost is less than $500** | **1** | **6.1** | **There are additional resources such as cables, KVM switches that are needed to support the aboce requests.** | **$1,200.00** | **On going** | **no** |
| **b2.**  | **Microsoft Degree Equipment Needs****Dell R710 Servers** | **1** | **6.1** |  | **$24,794.00** | **As needed to upgrade** | **no** |
| **b3.**  | **Cisco Degree Equipment Needs** **CCNA DISCOVERY & EXPLORATION BUNDLE 1-4 WITH 3 YEAR SMARTNET****Mfr Part #: CISCO1941-3YR Qty. 3****Mfr Part #: HWIC-2A/S= Qty. 3****Mfr Part #: CAB-SS-V35MT= Qty. 3****Mfr Part #: CAB-SS-V35FC= Qty. 3****Mfr Part #: HWIC-2A/S=** **Mfr Part #: WS-C2960-24TT-L-3YR** **Mfr Part #: AIR-PI21AG-A-K9-3YR** **Mfr Part #: AIR-CB21AG-A-K9-3YR** **Mfr Part #: LINKSYS ROUTER** **Mfr Part #: ACS-1841-RM-19=**  | **1** | **6.1** | **Needed in order to maintain Cisco Academy eligibility and teach updated curriculum. The Academy will not be in compliance and will have to close if we don't have this equipment.** | **$56,521.20** | **On going as needed to upgrade, usually 3-5 years.** | **no** |
| **b4.**  | **Linux Degree Equipment Needs****Overo Wireless pack (embedded Linux system)** **Part #: KIT0032** **USB Cable (mini-B to standard-A)** **5V US Power Adapter** **USB Cable (mini-B to mini-A)** **Overo™ Fire COM** **Palo35** **LG 3.5 inch LCD touch screen** **8GB MicroSD Memory Card** | **1** | **6.1** | **Tool for use in Linux curricula** | **$3890.00** | **On going as needed to upgrade 3-5 years** | **no** |
| **b5.**  | **New Wiring Infrastructure and Residential and Commercial Automation Needs.****1. Tecra Tools Fiber Optic Installer Kit, Pro, Item 84860****2. Tecra Tools Datacom Tool Kit****3. Building Automation and Security Demo Equipment****4. Fiber Optic Testers****Zoom Meter SKU #KIT-ZO DO LO****5. Copper Network Testers****QuickTrex LanTEST Pro2 with 8 remotes** | **1****1****1****1****1** | **6.1****6.1****6.1****6.1****6.1** | **Can not run a wiring installer class without the equipment to install wires and test. Can't teach how without the tools****Can not run this course without sufficient equipment to display and configure.****Can not run this course without sufficient testing equipment** | **$29,970****$30,720****$45,000****$8925.25****$890** | **On going upgrades to kit and some consumables****On going as needed to upgrade equipment****One Time****One Time** | **no****no****no****No****No** |

| **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.**  | **Cat 5e, Cat6, and Fiber Optic Cabling, Termination ends** | **1** | **6.1** | **We use these supplies to teach students how to wire networks. If the students can't actually make the wires, they won't learn. This is something that has to be taught be doing.** | **$2500 per year** | **on going** | **no** |
| **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.**  | **VMware Workstation 7.1 – 10 or More Licenses + 3 Year Support and Subscription (12 hours x 5 days)** **Virtualization software for labs** | **1** | **6.1** | **Needed to allow for full functionality for Virtual machines in classrooms** | **$52,750** | **On going as needed for upgrades** | **no** |
| **d2.**  | **CompTia Licensing for Student Voucher** | **1** | **6.1** | **Motivates students in classes by allowing them to receive vouchers for discounted industry exams if they pass the classes** | **$800** | **Per year** | **no** |
| **d3.**  |  |  |  |  |  |  |  |
| **d4.**  |  |  |  |  |  |  |  |
| **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.**  |  |  |  |  |  |  |  |
| **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.**  |  |  |  |  |  |  |  |
| **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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| **No** |

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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.** |
| **Currently the Computer Networking Discipline can boast a student success rate of 83% and a retention rate of over 95%!! 2011 will be the first year that students have had a good chance to complete all of the curriculum in the A.A. degree. From talking with students, we are speculating 10-15 students graduating in May of 2011 with one of the degree tracks!! We have numerous inquiries regarding the programs, many hungry students, and have compiled some excellent instructors from the industry. Instructors in the program are receiving exceptionally high student evalutation and student complaint are very few and far between for this discipline and the instructors that teach within it. We have had 2 students this year start their own business and have placed numerous other students in interships. We have many students reporting back to us with postive stories regarding the emplyment they have found after studying in our discipline. We are very proud of what we are doing and really wish we could grow it to its full potential!****Over half of the students in the CSNT 110 and CSNT 111 classes have taken their industry exams and are now certified!** |

| **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.** |
| --- |
|  **N/A** |

| **STEP VI. COMMENTS Other comments, recommendations: (Please use this space for additional comments or recommendations that don’t fit in any category above.)** |
| --- |
| **We are in desperate need of dedicated time in which we can open our networking rooms to networking students for lab time. Currently, there is no provision for this in scheduling nor does it count as room utilization. In this discipline, we have highly specialized equipment. It is very cost prohibitive for students to replicate our lab environments at home. Students must have time to work in our lab without threat of losing that time to other departments scheduling classes in those labs. Having dedicated lab time in those particular rooms (MD219, and MD215) is crucial to student success. They must practice setting up the lab envirnment with equipment that we have. Students that work in these labs, outside of class time, are better prepared for the industry exams, and do better overall in the course.**  |

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| **Please identify faculty and staff who participated in the development of the plan for this department:** |
| **Nicholas Rand Green*Name*** | **Aarone Hudson*Name*** | **Terrie Canon*Name*** |

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| --- | --- | --- |
| **Enrique Lastrilla*Name*** | **Steve Holt*Name*** | **Mike Bartulis*Name*** |

**Department Chair/Designee Signature Date**

**Division Dean Signature Date**

* **Provide a hard copy to the Division Dean no later than March 11**
* **Provide a hard copy with the Dean’s sign-off to Instructional Services by March 18**
* **Email an electronic copy to** **jdecker@palomar.edu** **by March 18**