

1. Assessment Plan - Four Column



PIE - Technology & Health: Electronics & Computer Technology Unit

Narrative Reporting Year

2018-19

Contact Person: All faculty

External Conditions, Trends, or Impacts: Cal Poly Pomona (CPP) has transitioned to a semester format, and some Mt. SAC electronics technology courses formerly articulated in their current form to what were then equivalent CPP courses may need to undergo mostly minor modifications to maintain alignment and articulation with their CPP counterparts.

Critical Decisions Made by Unit: Minor course modifications will be initiated to ELEC 51, 54A, 56, 61, and 74. The CPP equivalent to our department's ELEC 11 has been eliminated as a core requirement.

2018-19

Contact Person: Jonathan Hymer

Program Planning Dialog: The "tool skills" course advocated by the department's advisory body in 2018 has come to fruition in the form of the Continuing Education course, "Tool Use and Field Service Fundamentals," which will have its initial offering in Summer, 2019.

Internal Conditions, Trends, or Impacts : Students from the Electronics and CNET programs will be strongly encouraged to take this course, as it has been recommended directly by the department's advisory body.

Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement: The tool skills course will provide the crucial missing link for students to present themselves as well-rounded applicants for a variety of technical positions. This course directly responds to a need articulated forcefully by the advisory body.

Notable Achievements for Theme D: To Foster an Atmosphere of Cooperation and Collaboration: The Electronics department is actively collaborating with the Continuing Education division's short-term vocational training organization to bring this course to students much faster than if it had to be offered through the credit side of the institution. The flexibility in scheduling and course delivery, coupled with the fact that the course is offered at no cost to students, makes it one-of-a-kind in Southern California.

Contributors to the Report: J. Hymer (chair)/R. McKay (faculty)

2018-19

Contact Person: Ken Miller

Program Planning Dialog: Testing center is available at Mt. SAC for CompTIA certification exams

Internal Conditions, Trends, or Impacts : This year, a facility has opened in Bldg. 40 (Continuing Education) for administration of certifying exams through CompTIA.

Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement: Students are able to complete CNET courses and take all certification exams at Mt. SAC, leading to an increase in completion rates and employment prospects.

Notable Achievements for Theme B: To Support Student Access and Success: Students are able to complete their certification exam requirements in an environment they can access and with which they are familiar.

<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p>Facilities Issues - Funds requested having to do with the upkeep and on-going maintenance of the classroom facilities.</p> <p>Status: Active</p> <p>Goal Year(s): 2017-18, 2018-19, 2019-20</p> <p>Date Goal Entered (Optional): 09/01/2016</p>	<p>Report directly on Goal</p> <hr/> <p>Request - Full Funding Requested - Computer Lab Remodel</p> <p>Lead: Jim Uranga</p> <p>Type of Request: FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p>Planning Unit Priority: High</p>	<p>Reporting Year: 2018-19</p> <p>% Completed: 0</p> <p>All issues reported for previous year still need to be addressed. Lights routinely burn out and ballasts take months to repair, even when reported in a timely manner through Schooldude. Facilities and wiring upgrades to rooms 312 and 314 are still needed to bring up to campus standards. (05/07/2019)</p> <hr/> <p>Reporting Year: 2017-18</p> <p>% Completed: 0</p> <p>Facilities issues are ongoing: though both rooms 312 and 314 are fully functional, they still require electrical and telecommunications upgrades to bring up to campus standards. Additionally, a 3-phase, 208-V circuit must be installed adjacent to room 314 to allow for installation and use of the department's fume extraction system. A third white board needs to be installed in rooms 403 and 412. Overhead lights in the lab and classrooms routinely burn out and are not replaced. Although reported through Schooldude, one ballast replacement took over five months to complete, and another hallway light was burned out for over a year before being replaced despite being reported multiple times. (05/18/2018)</p> <hr/> <p>Reporting Year: 2017-18</p> <p>% Completed: 25</p> <p>2016-17: Facilities needs continue in the following areas: third white board installed in rooms 403 and 405; upgrades to power and data-communications capability; and routine attention paid to maintenance issues, most significantly replacement of fluorescent lamps and ballasts. 2017-18: Maintenance issues continue. Light ballasts routinely take weeks if not months to replace. Also, power and data communications capabilities need to be addressed in rooms 312 and 314. (07/05/2017)</p>
	<p>Request - Full Funding Requested - White boards--rooms 403, 410, 412</p> <p>Lead: Hymer</p> <p>Type of Request: FACILITIES: This section includes minor building</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 25</p> <p>Room 410 has a third white board. Rooms 403 and 412 each need a third white board installed on either side of the existing ones to allow for additional white board space to</p>

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	<p>improvement projects and alterations to specific rooms or operational areas.</p> <p>Planning Unit Priority: High</p> <p>Request - Full Funding Requested - Secure self-locks or an electronically actuated key system (with surveillance) is desperately needed. The security of several hundred thousand dollars' worth of equipment depends on this. Lock access is still an issue, as is the inability of faculty or staff to access the building during off hours.</p> <p>Type of Request: FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p>Planning Unit Priority: Medium</p>	<p>be available when the projection screen is in use. (05/18/2018)</p> <p>Reporting Year: 2017-18 % Completed: 25</p> <p>Classroom and equipment room locks have been returned to the self-locking variety; however, the department advocates for the installation of a CCTV system to maintain surveillance in the hallways whenever the equipment room (room 406) is unattended. There was an attempted break-in several years ago (pry marks on the Dutch door were apparent). Also, having a keypad (or card-swipe) based locking system installed would eliminate the need for high-security keys, and access codes can be changed more readily than with a key-based system. (05/18/2018)</p>
	<p>Request - Full Funding Requested - Need 3-phase (208-V) circuit for our existing fume extraction system. Soldering lab remodel room 314/fume extraction system</p> <p>Describe Plans & Activities Supported (Justification of Need): Soldering lab remodel room 314/fume extraction system</p> <p>Type of Request: FACILITIES: This section includes minor building improvement projects and alterations to specific rooms or operational areas.</p> <p>Planning Unit Priority: Medium</p>	<p>Reporting Year: 2017-18 % Completed: 0</p> <p>Need for this resource continues. Installation of the department-owned fume extraction system (which is fully self-contained, requiring no external venting) would eliminate the need for noisy, portable fans at each student workstation, thus improving the learning environment. (05/18/2018)</p>
	<p>Personnel support - Need for qualified lab assistants continues. Also critically needed is an individual</p>	<p>Reporting Year: 2017-18 % Completed: 0</p> <p>Need identified. (08/19/2017)</p>
	<p>Report directly on Goal</p>	<p>Reporting Year: 2018-19 % Completed: 0</p> <p>We have not received funding from our PIE in years. As a</p>

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<p>with subject-matter expertise to provide additional support for ELEC 74 (Microcontroller Systems), based on student feedback regarding bottlenecks created as the result of competition for instructor's attention.</p> <p>Status: Active</p> <p>Goal Year(s): 2016-17, 2017-18, 2018-19, 2019-20, 2020-21</p> <p>Date Goal Entered (Optional): 09/01/2016</p>	<p>Report directly on Goal</p> <hr/> <p>Request - Full Funding Requested - The department requests an increase to its existing hourly instructional aide account. The amount of 8158 below reflects an increase of 3000 over the existing allocation of 5158 to the 11000-353000-231000-093400-2100 Short Term Non Academic account</p> <p>Describe Plans & Activities Supported (Justification of Need): This funding is used to pay in-class lab assistants for our fundamentals courses. In the past we have relied on Perkins funding for this function; however, Perkins funding is year-to-year and subject to changing institutional priorities. These positions are critical to the department's mission. We did not receive Perkins funds for this purpose for the current academic year, and the absence of lab assistants for the Introduction to Mechatronics course resulted in significantly reduced success rates on student completion for the final exam activity. Because limited department funds had to be</p>	<p>result, any funding we have received has come through Perkins, which we also did not receive this past year and which has made it hard to hire student assistants for our introductory courses. Because in-class lab assistants are so vital to student success we have had to make them our top request in the Perkins application the last three years, thus, we have not pursued funding for other instructional equipment. I would request that our division increase our yearly hourly instructional aide account by \$3000. With this funding we would be able to pursue funds for purchasing equipment through Perkins or other sources. (05/11/2019)</p>

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redirected from other needs to fund a reduced presence of lab assistants, some courses normally relying on lab assistants were unable to do so this year, resulting in a reduction of student success rates. Although the department usually hires students to work as in-class lab assistants, having a division-supported instructional aide account is advantageous in the event the department needs to hire a non-Mt. SAC student to fulfill a critical role (such as professional expert for Electronics 74).

Lead: Department chairs for 2019-20: Joe Denny and Ken Miller

What would success look like and how would you measure it?: Increased student success as measured by completion rates or pass rates on final activity exams in Electronics 10.

Type of Request: STAFFING: Requests for permanent employee positions or temporary/hourly employees.

Planning Unit Priority: High

On-Going Funding Requested (if applicable): 8158

<p>Lab Modernization Requests - Each department laboratory will have industry current equipment to respond to employer and transfer institution needs.</p> <p>Status: Active</p> <p>Goal Year(s): 2016-17, 2017-18, 2018-19, 2019-20</p> <p>Date Goal Entered (Optional): 07/05/2017</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 100</p> <p>Equipment purchases, as well as the comprehensive nature of the programs in the department, have resulted in a larger number of students seeking positions with high-impact employers starting and continuing with our programs. We have seen an increase in the number of students from LA Metro, and we know of three Metro employees who intend to begin our program in Fall 2018. This is purely the result of word-of-mouth advertising. In addition, CNET students</p>
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	<p>Report directly on Goal</p>	<p>are routinely finding internships and permanent positions, both with Mt. SAC and with a variety of other area employers, particularly school districts.</p> <p>For the current year, the Electronics & Computer Technology Department was recognized with a bronze medal as a Strong Workforce Star by the state chancellor's office for producing a 59% increase in earnings according to state workforce data in the area of Electronics and Electric Technology. (05/20/2018)</p>
	<p>Request - Full Funding Requested - KVM Switches</p> <p>Describe Plans & Activities Supported (Justification of Need): Purchase 4 KVM (keyboard-video-mouse) switches for use in CNET 58 (Server Systems) course.</p> <p>Lead: Ken Miller</p> <p>Type of Request: INSTRUCTIONAL SUPPORT PROGRAM FUNDING (INSTRUCTIONAL EQUIPMENT): Equipment, library material, or technology for classroom instruction, student instruction or demonstration, or in preparation of learning materials in an instructional program, equal or over \$500.</p> <p>Planning Unit Priority: High</p> <p>One-Time Funding Requested (if applicable): 4000</p>	<p>Reporting Year: 2017-18</p> <p>% Completed: 0</p> <p>Funding has been requested through institutional (instructional equipment) channels, as Perkins funds were not awarded for this purpose in the 2018-19 cycle. (05/19/2018)</p>
	<p>Request - Full Funding Requested - Increase in department's software line item to reflect ongoing software licensing and maintenance obligations for the following packages: National Instruments Multisim; Camtasia; Useful; Faronics; Brightside</p> <p>Describe Plans & Activities Supported (Justification of Need):</p>	

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This request covers year-over-year increases to the department's software licensing fees and maintenance agreements. As one example, the National Instruments circuit design suite renews with an annual 10% price increase.

What would success look like and how would you measure it?:

Increased funding would allow the department to maintain current levels of software-related support.

Type of Request: SUPPLIES AND MATERIALS: Instructional supplies and materials are items to be used by students, faculty and other personnel in connection with an instructional program, less than \$500.

Planning Unit Priority: High

On-Going Funding Requested (if applicable): 300

<p>Distance Learning Availability - Introduce distance-learning-based versions of test-preparation courses in CNET program: CNET 60, 62, 64, 66 will be available as both in-person and distance-learning based courses. Status: Active Goal Year(s): 2018-19 Date Goal Entered (Optional): 05/20/2018</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2018-19 % Completed: 100 The Technical Applications in Microcontrollers course, ELEC 11, has been added to the list of department offerings approved to be offered fully online, and the faculty member pursuing online approval has invested well over 100 hours developing online training materials for the course. Two of four full-time faculty have received certification for online course delivery. (05/11/2019)</p> <hr/> <p>Reporting Year: 2017-18 % Completed: 100 All CNET test-preparation courses (CNET 60, 62, 64, 66) have received approval for distance learning delivery beginning Summer 2018. CNET 60 and 62 have been scheduled and will be offered. (05/20/2018)</p>
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<p>Increase department visibility - Increase department visibility: make</p>	<p>Report directly on Goal</p>	<p>Reporting Year: 2018-19 % Completed: 100</p>
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<i>Unit Goals</i>	<i>Resources Needed</i>	<i>Where We Make an Impact: Closing the Loop on Goals and Plans</i>
<p>students aware of department offerings, increase number of degrees and certificates awarded, and continue to offer articulation to courses offered at Cal Poly Pomona and other CSUs.</p> <p>Status: Active Goal Year(s): 2018-19 Date Goal Entered (Optional): 05/20/2018</p>	<p>Report directly on Goal</p>	<p>Faculty have initiated a concerted effort to encourage students to apply for all certificates for which they are eligible and to seek either faculty or counseling department support toward ensuring degree completion. A check-off worksheet is available on the department's web site and has been distributed in hard-copy form to students to inform them of certificate and degree course requirements. For the 2017-18 academic year, a total of 70 degrees and certificates have been issued for the department as a whole. When results are reported for 2018-19, we will be able to see if these efforts have taken hold. (05/11/2019)</p> <hr/> <p>Reporting Year: 2017-18 % Completed: 50</p> <p>Department has installed a video wall system on the 4th floor of Bldg. 28B. A short video will be made for use on campus monitors to increase awareness of the department. Students in terminal courses (in particular, ELEC 12 and ELEC 55) will be encouraged to apply for all certificates for which they are eligible. A certificate eligibility worksheet and the certificate application are both available on the department's web site, and applications are passed out in classes and students are given time to fill them out and encouraged to submit them. (05/20/2018)</p>
<p>Audio-visual upgrades - Upgrades to audio-visual equipment in lab rooms. Specifically, a presentation camera (Elmo or other) is requested for Room 312, and campus-standard video projectors with HDMI inputs are requested for rooms 312, 401, 403, 405, and 410.</p> <p>Status: Active Goal Year(s): 2017-18, 2018-19</p>	<p>Report directly on Goal</p> <hr/> <p>Request - Full Funding Requested - Upgrades to audio-visual equipment in lab rooms. Specifically, a presentation camera (Elmo or other) is requested for Room 312, and campus-standard video projectors with HDMI inputs are requested for rooms 312, 401, 403, 404, 405, and 410.</p>	<p>Reporting Year: 2018-19 % Completed: 0</p> <p>A presentation camera is still needed for room 312. The video projectors in lab rooms 401, 403, 404, 410, and 412 are over 10 years old and are approaching end-of-life and cannot support HDMI or other modern video formats as well as open captioning. (05/11/2019)</p>

Describe Plans & Activities

Supported (Justification of Need):

Elmo camera needed for room 312 (department's existing Elmo cameras reside on carts and are shared among lab rooms on 4th floor). Replacement of aging video projectors in lab rooms on 4th floor with campus standard Epson video projectors.

Lead: Joseph Denny

What would success look like and how would you measure it?:

Equipment installed

Type of Request: INSTRUCTIONAL SUPPORT PROGRAM FUNDING (INSTRUCTIONAL EQUIPMENT):

Equipment, library material, or technology for classroom instruction, student instruction or demonstration, or in preparation of learning materials in an instructional program, equal or over \$500.

Planning Unit Priority: High

One-Time Funding Requested (if applicable): 20000