Honolulu Community College Mission
Serve the community as an affordable, flexible, learning-centered, open-door comprehensive community college that meets the post-secondary educational needs of individuals, businesses, and the community, and

Serve the Pacific Region as the primary technical training center in the areas such as transportation, information technology, education, communication, construction, and public and personal services.

Program Mission Statement

The Electrical Installation & Maintenance Technology (EIMT) program's mission is to serve the community as a learner-centered, open door program that provides technical training to meet the demands of the Electrical industry and the needs of the individual. An open-exit option allows the students to identify their career objectives and participate in program exploration.

Program Description

The curriculum is designed to prepare the student to acquire entry-level knowledge and manipulative skills for employment in the electrical industry. The program combines theory with laboratory activities as an effective means of developing the skills essential to the electrical trade. The student begins with the fundamentals of electricity and wiring of simple circuits and then progresses to residential interior wiring, three phase alternating current power, and wiring of more complex circuits and equipment. Safety is stressed as an integral part of each shop task. Emphasis is placed on wiring in accordance with the provisions contained in the National Electrical Code.

Part I. Quantitative Indicators for Program Review

External Demand
Labor Market & Student Applications

Available data show that the current annual jobs and projected 2005-2012 job outlook for the general occupational cluster electrician are 2896 current jobs and a growth of 433 new jobs from 2005-2012 respectively in Honolulu County…and 3878 current jobs and a growth of 623 new jobs within the State of Hawai`i.

There were 85 Fall applicants to the Electrical installation and Maintenance Technology (EIMT) program in Fall 2004, and 46 applicants the program for the Spring 2005 Semester. Overall, among those Fall and Spring applicants, 130 applications appear to have been accepted by the
college and admitted to the program, while zero appear to have cancelled applications, or been redirected etc. Among those accepted and admitted, available data show that 52 in the Fall and 24 in the Spring actually enrolled in the semester initially applied for.

- Overall, our sense of the labor market and its relationship with the number and enrollment yield of applicants to our program reflects the desire of the applicants to obtain the educational background before they enter the electrical field.

**Internal Demand**

Registration headcount of actively enrolled students in Fall 2004 and Spring 2005 show that the EIMT program major carried 104 majors in the Fall and 111 majors in the Spring.

Available data show that of 104 Fall and 111 Spring students in the major for Fall 2004 and Spring 2005, 43 were enrolled in Department classes in Fall--and 36 enrolled in Department classes in Spring.

Program major’s enrollment in department classes generated 430 student semester hours in Fall 2004 for an average of 10 semester hours, and 360 student semester hours in Spring 2005 for an average of 10. The resulting credit hours generated equate with 28.7 Fall and 24 Spring respective Fall 2004 and Spring 2005 Full Time Equivalent (FTE) enrollments.

Enrollment by program majors and non-majors accounted for the 430 and 360 student semester hours generated by the department subject code(s) EIMT in Fall 2004 and Spring 2005 respectively.

Overall, students under our program major enrolled for totals of 1016 semester hours in Fall 2004, and 1014 in Spring 2005. As mentioned above, they generated 10 and 10 in Fall 2004 and Spring 2005 respectively within the department.

Then, augmenting coursework within the department, 71 Program Majors were enrolled in a total of 586 student semester hours of coursework in other departments in the Fall 2004, while 83 enrolled for 654 student semester hours outside the department in the Spring 2005 semester.

- Our sense from comparing major’s average credit hours within department classes 10 Fall and 10 Spring and outside the department 8.3 Fall and 7.9 Spring is that the EIMT graduate with an Associate in Applied Science Degree is a well rounded graduate with knowledge not only in the electrical field but, also in physics, blueprint reading, and liberal arts.

**Internal Efficiencies**

**Scheduling and Instructional Faculty**

With 1.6 Full Time Equivalent (FTE) faculty in Fall 2004, and 1.6 in Spring 2005—the department offered 5 active class sections in Fall and 5 in Spring.
Average Class Size in Fall 2004 was 22.3, and the Class Fill Rate was 92.7%. For Spring 2005, Average Class Size was 18.5—with a Class Fill Rate of 77.1%.

The department utilized 1.6 and 1.3 Full Time Equivalent (FTE) BOR approved faculty in Fall 2004 and Spring 2005 respectively. There were an additional (0) Full Time Equivalent (FTE) Part Time Lecturers teaching in Fall 2004, and (0) for Spring 2005.

Based respectively on student credit hours generated and course credit hours taught, the ratio of full time student equivalents (FTSE) to full time faculty equivalents (FTFE) was 17.92 in Fall 2004, and 15 in Spring 2005. The ratio of program majors to FTE faculty was 65 ad 69 respectively in Fall 2004 and Spring 2005.

- Our sense of departmental operating efficiencies from considering these data is that the EIMT department is operating efficiently while meeting the College and Program mission statements.

**Instructional Outcomes**

As reflected in available data for the 04/05 academic year, the department awarded 4 certificates, and 17 degrees.

Available data on student grade distribution within the department subject code indicate that of all grades awarded in Fall 2004, (A) 46.5%, (B) 27.9%, (C) 11.6%, (D) 8.1%, and (F) 2.3%. In Spring 2005, (A) 19.4%, (B) 52.8%, (C) 26.4%, (D) 1.4%, and (F) (0)%.

Student Persistence within the subject code EIMT from Fall 2004 to Spring 2005 was 83.7%; persistence of majors in the same period (whether enrolled in department courses or not) was 69.6%.

Review of department major’s performance on the Perkins Core Indicators indicates

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<tr>
<th>Indicator</th>
<th>1P1</th>
<th>1P2</th>
<th>2P1</th>
<th>3P1</th>
<th>3P2</th>
<th>4P1</th>
<th>4P2</th>
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<td><strong>2004-2005 Core Standard</strong></td>
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<td>EIMT Actual Performance 04/05</td>
<td>81.81%</td>
<td>90.00%</td>
<td>36.00%</td>
<td>71.00%</td>
<td>90.00%</td>
<td>14.18%</td>
<td>12.86%</td>
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• Given consideration of these data, our sense of instructional outcomes is that the EIMT program is doing quite well. Program performance on all three core indicators (2P1: Program Completion, 3P1: Job Placement, and 3P2: Job Retention) exceeded the core standards. It should be noted that the 52.78 completion rate (2P1) may be partially due to the fact that many of our students leave the program for employment. With the State's low unemployment rate (<2%) and the boom in construction statewide, many students are able to find well-paying jobs in the field before completing our 2-year program.

OVERALL

Department demand for the 04/05 academic year was calculated at 5.7, which translates to an above satisfactory demand status.

Department efficiency for the 04/05 academic year was calculated at 84.9, which translates to an above satisfactory efficiency status.

Department Outcome for the 04/05 academic year was calculated at 87.5, which translates to an above satisfactory outcome status.

• Given consideration of these demand, efficiency, and outcomes indicator data together, our sense of overall program health is that the EIMT program is healthy.

Part II. Assessment Results for Program SLOs

Graduates of the EIMT program are surveyed on an annual basis. The result of a survey of 2005 graduates indicates that 89% (17 of 19) of the graduates found employment in an electrically related industry or are continuing their education. This shows that the program is meeting program SLOs and students are prepared to find employment in the industry.

Part III. Curriculum Revision

All electrical work done in the State of Hawai’i is governed by the National Electrical Code (NEC). The National Electrical Code is revised every three years. The curriculum for the EIMT program is based on the NEC and thus reviewed/revised every three years to stay current with the latest edition of the NEC. The latest curriculum revision was done in 2005 to meet the 2005 NEC standards.

Part III. Analysis of data

Alignment with mission

The EIMT program’s mission statement is aligned with the College’s mission statement, which is to serve the community as a learner-centered, open door program that provides technical training to meet the demands of the Electrical industry and the needs of the individual.
Strengths and weaknesses based on analysis of data

The EIMT program is a healthy program as indicated by its overall outcome statistics.

Evidence of quality

Yearly graduate student surveys indicate that EIMT students are being employed in the electrical field. The Hawai‘i Electrical Worker (HEW) Union values graduates from the EIMT program enough that the graduates enter the work force at one pay scale higher than other entry-level apprentice do.

Resource sufficiency

Resources for the EIMT program have been sufficient. Funding for the program should increase on yearly bases to keep-up with the increases for lab supplies such as cable, conduit and computer program upgrades.

Recommendations for improving outcomes

Improve funding for lab materials and new equipment. Provide more classrooms in the same building. Increase and modernize lab facilities.

Part IV. Action plan

Improve curriculum through revisions to maintain currency with the electrical industry and the NEC. Design the future EIMT facility to incorporate features that the current facility is lacking. Maintain a good working relationship with the local electrical unions.

Part V. Budget implications

The present EIMT budget is sufficient for the faculty to meet is objectives. In the future the budget will have to increase to meet the rising cost of material and equipment.