

2024 Annual Report of Program Data

Electronics Technology Program



1. Program or Unit Mission

The Program's mission is to produce graduates who are technically competent, can communicate and work with others effectively, demonstrate responsible citizenship, leadership and an awareness of the global context of their work.

College Mission Alignment

The program support's Kaua'i CC's mission by providing a space where students can learn electronics concepts and apply those concepts in the lab, receive guidance and wisdom from knowledgeable faculty, and be empowered to share their knowledge with and mentor others. The graduates of this program serve the technology needs of this island.

2. Program Student Learning Outcomes or Unit/Service Outcomes

Program Student Learning Outcomes (PSLOs) are directly aligned with Course Student Learning Outcomes (CSLOs) embedded into each course taught. Evaluations are performed throughout the semester and assessed by Oral Presentations, Performance/Exhibits, Skills Tests/Demonstrations, and Exams or Quiz/Embedded Questions. A culmination of these assessment methods were utilized to assess the following PSLOs:

PSLO 1: Demonstrate analysis, design, and measuring of digital circuits and digital logic fundamentals.

PSLO 2: Demonstrate practical knowledge of computer hardware, software, and operating systems. (Electronic Technology)

PSLO 4: Demonstrate building and configuring internet networks. (Electronics Technology)

PSLO 8: Communicate effectively orally, in writing, and by means of the various electronic communication devices. (Electronic Technology)

Successful completion of 90% with C or higher grade in academic year 2023-24 supports instructional success. Continual partnership building and increased industry support with scholarships and internship opportunities for the program led to incentives in successfully completing courses that would lead to employment. These ongoing efforts to improve participation and learning outcomes will be shared at the next Advisory Board meeting.

3. Analysis of the Program/Unit

Demand

The program is the only source of technical training on the island and serves a vital role in the community. Graduates are employed by subcontractors to the Navy Base, PMRF, or by local employers such as Pacific Communications, ASCM, Spectrum, Hawaii Telecom, Xerox, and various computer and IT positions needed in commerce or tourism (These are the employers of the past four years). The demand for graduates is greater than the current supply, with students often being hired before they graduate. The program provides a broad training which includes electronics, mechanics, programming, and networking.

ARPD Demand Indicators display Insufficient Data for *new and replacement positions* (County Prorated). However, major contractors at PMRF through Koa Lani, Amentum, and Alaka'ina Foundation Family of Companies, as well as other local businesses seek program graduates. The program is currently unable to meet the actual county demand for positions with the number of program graduates. This means that all successful program graduates (6) this last year have been offered employment. The number of majors has increased from 15 in 2022-23 to 22 in 2023-24. Native Hawaiian majors increased from 4 to 5, and the fall full-time participation increased from 28% to 52% in the same time period. Spring full-time participation of 33% in 2022-23 also increased to 63% in 2023-24. Ongoing partnership and support with proactive industry initiatives with the Pacific Intelligence Innovation Initiative (P3i) along with Alaka'ina Foundation Family of Companies providing scholarships as well as internship opportunities have been promoted at the high schools which led to positive program growth. These increases in both fall and spring data resulted in a large gain (almost double) in SSH program majors from 157 to 291 and SSH in all program classes from 163 to 346 (more than doubled).

Efficiency

The average class size has nearly doubled from 7 to 13 in the past year with a fill rate increase from 47.5% in 2022-23 to 86.7% in 2023-24. Currently there are no 1.0 Full-time equivalent (FTE) faculty members, with only lecturers teaching all courses. This circumstance reflects a large increase in the *majors to FTE BOR appointed faculty* metric from 0 in 2022-23 to 22 in 2023-24.

Effectiveness

There was a slight increase in successful completion from 82% to 90% and fall to spring persistence from 73% to 74% in the past year. Unduplicated Degrees/Certificates awarded increased substantially from 8 in 2022-23 to 29 in 2023-24. This is probably due to the lower enrolled courses with less course offerings in 2022 after the retirement of the 1.0 FTE faculty that increased in 2023 with the hiring of additional lecturers with additional course offerings.

Perkins Indicators

Perkins Indicators have surpassed the goal of 35% with *IP1 Postsecondary Placement* at 100%, and *2P1 Earned Recognized Credential* at 100%. *3P1 Nontraditional Program Concentration* surpassed the goal of 12% at 15%.

Results are available to be viewed here [ARPD](#)

4. Action Plan

The program is working on the *Comprehensive Review Action Plan* of 2023 for program expansion by developing curriculum and offering *CompTIA Security and Network* and on-line engineering courses upon fully staffing and seeking to hire two, 1.0 FTE faculty. All courses are currently taught by lecturers with program oversight and coordination by the Division Chair, who is not a program content expert. Attempts to hire the first of two vacant positions have proved challenging because the starting faculty salary is much lower than industry wages. Additionally, the high cost of housing has deterred some qualified candidates for this position. The college also recently secured grant funds to hire computer science lecturers and an additional 1.0 FTE faculty. Though similar hiring challenges may be faced. Strategies on working with industry partners to assist in housing expenses for candidates that relocate to Kaua'i will be explored.

Maintaining expensive, high tech equipment to properly train students at industry standards also needs to be a high priority for the program. To accomplish this, a lab technician is needed to support this program and the Applied Workforce Technology division. Perkins funding will be requested and other options explored.

Lastly, the DKIT building air conditioning has frequent system cooling issues that negatively impact temperature sensitive electronic servers and make learning spaces warmer than ideal. An independent A/C system would be a cost effective solution.

5. Resource Implications

I am NOT requesting additional resources for my program/unit.

The program is seeking two, 1.0 FTE faculty positions, one, 1.0 FTE Lab Technician, and an independent A/C system.

2 - \$85,000 FTE faculty salary

1 - \$65,000 Lab Technician salary

1 – Cost to be determined Independent A/C system