Integrated Industrial Technology

2019
ANNUAL REPORT OF PROGRAM DATA

UNIVERSITY OF HAWAII'
LEEWARD
COMMUNITY COLLEGE
1. Program Description

The IIT Program provides students with a theoretical and practical understanding of mechatronic systems as well as develops practical skills in systems integration. Graduates will be able to program, operate, maintain, calibrate, and repair the equipment that makes up these complex systems. The degree prepares students for occupations that involve the integration of electronic, electrical, mechanical, and communications systems. Typical occupations may include electromechanical systems technician, robotics and manufacturing systems technician, process control systems technician, transportation systems technician, and systems integrator.

2. Analysis of the Program

The Integrated Industrial Technology Program is a new offering for Leeward CC. The program received provisional approval from the UH Board of Regents in Spring 2017. The first cohort of students started in Spring 2018, followed by two additional cohorts beginning in fall 2018 and Fall 2019. The unduplicated head count for the program stands at 41 students.

The AS degree and certificate programs in Integrated Industrial Technology at Leeward CC provides students on O'ahu with a foundation in electronic, electrical, mechanical, and automated control systems to prepare them for high skill-high wage career jobs that meet the workforce needs of an emerging industrial technology industry in Hawaii.

The initial cohort of students are in the 4th semester of the program, accordingly there are no metrics for terminal degrees attained. Degree metrics determine the demand and efficiency indicators. The effectiveness of the program is healthy.

Following the completion of the first cohort, complete metrics will allow analysis of the program as well as analysis of Perkins core indicators.

3. Program Student Learning Outcomes

- Use appropriate safety, health, and personal protection procedures applicable to an industrial working environment.
- Utilize proper procedures for inspection, preventive maintenance, and corrective maintenance of integrated industrial systems.
• Demonstrate an understanding of the theory, construction, installation and operation of hydraulic and pneumatic systems in an automated controls environment.
• Demonstrate an understanding of mechanical drive systems, their function and the operation in an automated controls environment.

The Integrated Industrial Technology Program is in the second year of the initial provisional period. A schedule of Program Student Learning Outcome assessment will be commencing the semester following the completion of the initial cohort.

4. Action Plan

The program is in the initial probationary period, a comprehensive analysis of the program to include employability of graduates, achievement of program outcomes, and alignment with the college mission will be conducted following the graduation of the 2nd cohort. The Program intends to offer a cohort of at least 25 students at least once per year each fall, with the option of adding a cohort beginning in spring semester based on industry workforce needs.

5. Resource Implications

The IIT program falls under the administrative control of the Math and Science Division. The Program Coordinator is a faculty assigned to the Office of Continuing Education and Workforce Development. IIT Program Coordination duties span both the degree programs and non-credit workforce development programs. There is no overload cost to the college for coverage of his duties, all classroom and laboratory equipment as well as consumables are presently being furnished by OCEWD. Beginning in fall 2020 Math and Science Division should budget for the purchase of consumables, annual subscription to online content, software update fees, and equipment maintenance. Long term budgeting for the replacement of laboratory assets will be determined following the completion of the 2nd cohort.