**Program Assessment Data Report**

**Program:\_\_Robotics and Automation Technology\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Terms Data Collected: Fall 2021-Fall 2022**

|  |  |  |  |
| --- | --- | --- | --- |
| Program-Level Learning Outcome- (From Assessment Plan) | Assessment Measure(s) and Where Implemented in Curriculum – (From Assessment Plan) | Targets- Level of Success Expected-(From Assessment Plan) | Assessment Results – (Provide Data in a form related to targeted levels of success to left. Indicate if Targeted level of success was met, partially met, or not met.) |
| Students will be able to demonstrate troubleshooting skills in electronics to test, analyze and maintain industrial automation equipment in proper working order. | * Build a device using sensors and output devices to accomplish a task and perform subsequent testing and evaluation of its performance. (CETT 1445-Microprocessor)
* Perform a lab using instrumentation devices for troubleshooting remote monitoring system (INTC 1307-Instrumentation Test Equipment)
 | 70% of students will earn a grade of 70% or better on indicated measures | CETT 1445 – Fourth semester course in the program; course will be offered in Spring 2023INTC 1307 – Target metClass average 84% |
| Students will be able to safely perform preventive maintenance and general repairs on industrial automation equipment including hydraulics, pneumatics, motors and PLCs (programmable logic controllers). | * Lab exercise to perform preventive maintenance and general repair on motors (INTC 1357-AC-DC Motor Control)
* Lab exercise to perform preventive maintenance and general repair on hydraulic and pneumatic systems (ELMT 1305-Basic Fluid Power)
 | 70% of students will earn a grade of 70% or better on indicated measures | INTC 1357 – Target Met Class average 100%ELMT 1305 – Target MetClass average 100% |
| Students will be able to safely install and integrate industrial automation equipment. | Complete capstone project to install and integrate multiple control system technologies to develop an automation solution (INTC 2359-Distributed Control Systems | 70% of students will earn a grade of 70% or better on indicated measure | INTC 2359 – Fourth semester course; course will be offered in Spring 2023 |
| Students will be able to program industrial control and robotic systems for industrial automation. | * Lab exercise requiring robot programming to control an automation system (RBTC 2345-Robot Application, Set-up, and Testing)
* Lab exercise requiring PLC programming to control components of an automation system (ELMT 2339-Advanced Programmable Logic Controllers)
 | 70% of students will earn a grade of 70% or better on indicated measures | RBTC 2345 – Target Met Class average 89.57%ELMT 2339 - Fourth semester course; course will be offered in Spring 2023 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |