Mitchell COMMUNITY COLLEGE

Advanced Integrated Manufacturing Systems (AIMS) Lab Summary*

*Student must be able to work on their own with supervision.

Entry Level Entry Level Position	Intermediate I Technician	Intermediate II Automation Technician	Advanced Engineering Technician
Basic Electricity Introduction To Industrial Controls Discrete Sensors AC & DC Drives Basic PLCs Troubleshooting Introduction to Pneumatic Systems Electro-Mechanical Control of Pneumatic Systems Industrial Control Applications and Interfacing Sensor Applications and Interfacing AC & DC Drives Applications and Interfacing	Introduction to PLCs Automation Systems (Level 1) Electro-Pneumatic System PLC Control of Pneumatic Systems Introduction To Hydraulic Systems Electro-Mechanical Control of Hydraulic Systems PLC Control of Hydraulic Systems PLC Applications and Interfacing	Three-Phase Motor Starters Reduced Voltage Starters AC Motor Drive DC Motor Drive Electro-Mechanical System/DC Motor Bottling Process System Level Process Control System Electro-Mechanical System/Stepper Motor Introduction to AB CompactLogix Introduction to Operator Interface Systems Digital Servos	DC Fundamentals DC Network Theorems AC 1 Fundamentals AC 2 Fundamentals Magnetism and Electromagnetism Semiconductor Devices Thyristors and Power Control Circuits Transducer Fundamentals Motors, Controls and Generators Introduction To Industrial Electrical Installation Electrical Power Distribution Electrical Wiring Control Panel Fabrication FANUC Certification (CERT) Training Automation Systems (Level 2) Mechatronics Systems (Level 1) Mechatronics Systems (HMI Interfacing) Mechatronics Systems (Bar Code Interfacing) Mechatronics Systems (Ethernet Communications)
Minimum Hours: 180	**Minimum Hours: 204**	**Minimum Hours: 184**	**Minimum Hours: 488**

Each Level is a building block for the next level, allowing the student to build competences and skills to meet the needs of the industry.
Student works independently with assistance of a lab instructor using the course manual.
AIMS Course Evaluation: Student is evaluated by hands-on demonstration of skill and/or written evaluations.

Registration Process each semester:

1. Complete Continuing Education Registration Form
2. Pay for the course by credit card, check or cash

Cost: $196.25 per person per semester