AUTOMATION TECHNOLOGY PROGRAM

TECHNICAL CERTIFICATE IN INDUSTRIAL ELECTRONIC TECHNOLOGY

(Students who take Robotic elective courses may substitute classes as noted below and progress to earn a Technical Certificate in Industrial Electronic Technology by completing the remaining required courses below.)

Curriculum

The matrix below is a sample plan for all coursework required for this program.

Fall or Spring

Course Number and Name	Credits
ICS 1123 Semiconductors I	3
ICS 1163 Fundamentals of Electricity I (DC Circuits)	3
ICS 1173 Fundamentals of Electricity II (AC Circuits)	3
ICS 2123 Industrial Fluid Power	3
Approved Elective Credit	2
Total Hours	**14**

Fall or Spring

Course Number and Name	Credits
BST 1003 Business English	3
ICS 2213 Semiconductors II	3
TMAT 1103	3
Approved Elective Credit	2
Total Hours	**11**

1st Summer Session (five-week course)

Course Number and Name	Credits
ICS 1143 Introduction to Digital Logic	3
Approved Elective Credit	2
Total Hours	**5**

*(*Robotics Electives: ICS 1103 Programming I; ICS 2103; ICS 2033 Industrial Robotics Programming; ICS 2043 Robotics and Motion Control.)*

(Concurrent students who earn a Certificate of Proficiency in Machining Operations may progress to earn a Technical Certificate in Industrial Electronic Technology by completing the remaining required courses below. Students pursuing the machining operations path will actually earn 32 hours.)

Certificate of Proficiency in Machining Operations

Course Number and Name	Credits
ICS 2513 Blueprint Reading, Precision Measurements, and Safety	3
ICS 2514 Computer Numerical Control (CNC) Milling	4

Course Number and Name	Credits
ICS 2523 Machining Technology	3
ICS 2524 Computer Numerical Control (CNC) Turning	4
Welding Elective	3
Total Hours	**17**

Fall

Course Number and Name	Credits
BST 1003 Business English	3
ICS 2123 Industrial Fluid Power	3
ICS 1163 Fundamentals of Electricity I (DC Circuits)	3
ICS 1173 Fundamentals of Electricity II (AC Circuits)	3
TMAT 1103	3
Total Hours	**15**