

B.T.C. Instrumentation and Automation Assistant

(1 Year)

Objective:

To prepare students as entry-level technician and maintenance assistants to meet the needs of the electrical and process industry.

Employers include food processing, mining, semiconductor, chemical, paper, steel, petroleum, utilities and manufacturing industries. Graduates will have theoretical knowledge and hands-on experience setting up and calibrating electronic devices that measure and control temperature, level, flow, pressure, motion, force, humidity and acidity.

Graduates will be able to troubleshoot single and three phase motor controls, basic variable frequency drives, programmable logic controllers, sensors, relays, timers, solenoids, and other automation devices.

Code	Title	Credits
Required Courses:		
ESET 1103	Introduction to Electronics Theory	1
ESET 1103L	Introduction to Electronics Lab	1
ESET 1104	DC Electronics Principles Theory	2
ESET 1104L	DC Electronics Principles Lab	2
ESET 1105	AC Electronics Principles Theory	4
ESET 1105L	AC Electronics Principles Lab	2
INST 1140	Introduction to Motors and Motor Control Theory	2
INST 2220	Introduction to Programmable Logic Controllers	3
INST 2240	Theory	2
INST 2242	Theory	2
INST 2251	Laboratory	1
INST 2253	Laboratory	1
INST 2254	Laboratory	1
Total Credits		24

Major Academic Plan (MAP)