



INDUSTRIAL ENGINEERING TECHNOLOGY
ELECTRICAL AND INSTRUMENTATION
Associate in Applied Science Degree

Program Locations: The Academy at Fairhope Airport, Atmore, and Thomasville Campuses

Length: Four Semesters

The Electrical and Instrumentation Technology program is designed to help students exit the program with hands-on skills and knowledge recognized by industry partners as the key competencies to succeed in the field of instrumentation technology.

This is a career program designed for students to go directly into the labor market upon completion. Although some of the courses in this program will transfer to four-year institutions, this program is not designed to be a transfer program of study; therefore, it is not subject to the terms and conditions of STARS.

AREA I: Written Composition	3 Total Hours
ENG 101 – English Composition I	3
AREA II: Humanities and Fine Arts	6 Total Hours
Choose one of the following: SPH 106 – Fundamentals of Oral Communication SPH 107 – Fundamentals of Public Speaking	3
Humanities and Fine Arts Elective: Choose one of the following ART 100 – Art Appreciation ART 203 – Art History I ART 204 – Art History II HUM 101 – Introduction to Humanities I HUM 102 – Introduction to Humanities II MUS 101 – Music Appreciation PHL 106 – Introduction to Philosophy PHL 206 – Ethics and Society REL 100 – History of World Religions REL 151 – Survey of the Old Testament REL 152 – Survey of the New Testament THR 120 – Theater Appreciation THR 126 – Introduction to Theater	3
AREA III: Natural Sciences and Mathematics	9 – 10 Total Hours
CIS 146 – Microcomputer Applications	3
Choose one of the following: MTH 100 – Intermediate College Algebra MTH 116 – Mathematical Applications	3
Computer Science, Math or Science Elective: Choose one of the following BIO 101 – Introduction to Biology I BIO 102 – Introduction to Biology II BIO 103 – Principles of Biology I CHM 104 – Introduction to Inorganic Chemistry CHM 111 – College Chemistry I CHM 112 – College Chemistry II CIS 130 – Intro to Information Systems CIS 147 – Advanced Micro Applications MTH 100 – Intermediate College Algebra MTH 110 – Finite Mathematics MTH 112 – Precalculus Algebra MTH 113 – Precalculus Trigonometry MTH 115 – Precalculus Algebra and Trigonometry MTH 116 – Mathematical Applications PHS 111 – Physical Science I PHS 112 – Physical Science II PHY 120 – Introduction to Physics PHY 201 – General Physics I with Trigonometry PHY 202 – General Physics II with Trigonometry	3 – 4

AREA IV: History, Social, and Behavioral Sciences		3 Total Hours
Choose one of the following:		3
ECO 231 – Principles of Macroeconomics	HIS 202 – United States History II	
ECO 232 – Principles of Microeconomics	POL 200 – Introduction to Political Science	
GEO 100 – World Regional Geography	POL 211 – American National Government	
HIS 101 – Western Civilization I	PSY 200 – General Psychology	
HIS 102 – Western Civilization II	PSY 210 – Human Growth and Development	
HIS 121 – World History I	SOC 200 – Introduction to Sociology	
HIS 122 – World History II	SOC 210 – Social Problems	
HIS 201 – United States History I		
AREA V: Pre-Professional, Major, and Elective Courses		
IET 114 – Basic Electricity		3
IET 122 – Rotating Machinery and Controls		3
IET 131 – Fluid Power Systems		3
ILT 108 – Introduction to Instruments and Process Control		3
ILT 114 – Instrumentation Operation and Calibration		3
ILT 166 – Motors and Transformers I		3
ILT 214 – Control and Troubleshooting Flow, Level, Temperature, Pressure and Level Processes		3
INT 117 – Principles of Industrial Mechanics		3
ELT 212 – Motor Controls II		3
ELT 231 – Introduction to Programmable Controllers		3
ELT 232 – Advanced Programmable Controllers		3
WKO 110 – NCCER Core		3
ORI 101 – Orientation to College or WKO 107 – Workplace Skills Preparation		1
ACR, ELT, IET, ILT, INT, or WKO Electives: Choose three of the following.		9
ACR 111 – Principles of Refrigeration	ILT 218 – Industrial Robotics Concepts	
ACR 112 – HVACR Service Procedures	ILT 180 – Special Topics	
ACR 119 – Fundamentals of Gas Heating Systems	INT 106 – Elements of Industrial Mechanics	
ACR 121 – Principles of Electricity for HVACR	INT 127 – Principles of Industrial Pumps and Piping Systems	
ACR 126 – Commercial Heating Systems	INT 132 – Preventative and Predictive Maintenance	
ACR 148 – Heat Pump Systems I	INT 134 – Principles of Industrial Maintenance	
ACR 149 – Heat Pump Systems II	Welding and Metal Cutting Techniques	
ACR 205 – System Sizing and Air Distribution	INT 153 – Precision Machining Fundamentals I	
ELT 114 – Residential Wiring Methods	INT 158 – Industrial Wiring I	
ELT 115 – Residential Wiring Methods II	INT 161 – Blueprint Reading for Industrial Technicians	
ELT 131 – Wiring I Commercial and Industrial	INT 215 – Troubleshooting Techniques	
ELT 233 – Applied Programmable Controls	INT 222 - Special Topics	
ELT 241 – National Electric Code	INT 232 – Manufacturing Plant Utilities	
ILT 114 – Instrumentation Operation & Calibration	INT 291 – Cooperative Education	
ILT 115 – Advanced Industrial Controls	WKO 106 – Workplace Skills	
ILT 215 – PLC Monitoring and Control of Instrumentation Process Variables		
Total Hours		