

AUTOMATION SYSTEMS TECHNOLOGY



Associate of Applied Science Degree
10-664-1

As a graduate of the Automation Systems Technology associate's degree program, you'll be prepared to design, program, and troubleshoot integrated machine systems used in the growing field of advanced manufacturing and industrial controls. Students in this program work with integrated systems that include industrial automation, robotics, mechanical systems, computer integration, and industrial communications. Potential career opportunities include automation technician, controls technician, controls designer, and engineering technician.

1. Perform work safely
2. Troubleshoot electrical and mechanical systems and devices
3. Communicate technical information
4. Integrate automation and mechanical control systems

Semester 1		Credits
804-113	College Technical Mathematics 1A	3
620-902	Mechanics of Learning for Industrial Technologies	1
449-300	Safety for General Industry	1
620-903	Troubleshooting Integrated Manufacturing Systems 1	1
620-146	Basic Mechanics	1
421-110	Interpreting Schematics for Manufacturing	1
421-310	Print Reading for Manufacturing	1
620-147	Basic Principles of Preventive Maintenance	1
620-116	Fluid Power 1: Basic Pneumatics	1
620-101	Fundamentals of DC Circuits 1	1

620-102	Fundamentals of DC Circuits 2	1
620-109	Relay Logic	1
620-124	Programmable Logic Controllers - PLCs	1
606-480	CAD Fundamentals - 2D Drawing	1
606-176	CAD Fund-Solid Modeling	1
Credits		17

Semester 2

804-114	College Technical Mathematics 1B	2
806-154 or 620-996 <i>and</i> 620-997 <i>and</i> 620-998 <i>and</i> 620-999	General Physics 1 or Work-Based Learning 1: Equipment Operation <i>and</i> Work- Based Learning 2: Preventive Maintenance <i>and</i> Work-Based Learning 3: Maintenance Troubleshooting <i>and</i> Work-Based Learning 4: Integration	4
620-113	Fundamentals of AC Circuits 1	1
620-114	Fundamentals of AC Circuits 2	1
620-106	Electric Motors 1	1
620-910	Electric Motors 2	1
620-134	Sensors	1
620-111	Programming Fundamentals 1	1
620-112	Programming Fundamentals 2	1
620-121	Programmable Automation Controllers (PACs) 1	1
620-122	Programmable Automation Controllers (PACs) 2	1
620-117	Fluid Power 2: Basic Hydraulics	1
Credits		16
Semester 3		
801-136	English Composition 1	3

809-196	Introduction to Sociology	3
620-131	Solid State Devices 1	1
620-132	Solid State Devices 2	1
620-126	Robotics 1	1
620-127	Robotics 2	1
620-107	Variable Speed Drives 1	1
620-911	Variable Speed Drives 2	1
620-175	Servomechanisms 1	1
620-913	Servomechanisms 2	1
620-141	Process Control 1	1
620-142	Process Control 2	1
Credits		16
Semester 4		
801-197	Technical Reporting	3
809-198	Introduction to Psychology	3
620-144	Human Machine Interfaces (HMI)	1
620-914	Supervisory Control and Data Acquisition (SCADA) Systems	1
664-012	Industrial Networks	1
620-148	Industrial Integration	1
620-908	Maintenance Management	1
623-622	Lean Manufacturing	1
664-011	Machine Vision Systems	1
620-915	Troubleshooting Integrated Manufacturing Systems 2	2
Credits		15
Total Credits		64