

MANUFACTURING ENGINEERING TECHNOLOGY



Associate of Applied Science Degree 10-623-3

A skilled workforce is needed in the manufacturing/production operations and/or manufacturing/production services for the design and development of new products, production systems, processes, operations, services, quality control, continuous improvement, lean principles, manufacturing competitiveness, and sustainability. As a Manufacturing Engineering Technology associate degree graduate, you're prepared for a career as a technologist to apply the fundamentals of materials selection, tooling, assembly and automation to the solution of manufacturing and production related activities. The Manufacturing Engineering Technology Associate's Degree program also prepares students to work in the manufacturing sector assisting engineering and management in the design and development of new products and in the improvement of production processes.

Upon successful completion of this program, students will be able to:

- Characterize lean culture and tools can help an organization achieve operational excellence
- Apply proper engineering principles in design
- Utilize computer-aided applications in design and manufacture of products and processes
- Demonstrate the principles of material selection and application
- Apply automation principles for design and control of manufacturing processes

Semester 1		Credits
804-197	College Algebra and Trigonometry with Applications	5
801-136	English Composition 1	3
620-902	Mechanics of Learning for Industrial Technologies	1

449-300	Safety for General Industry	1
421-310	Print Reading for Manufacturing	1
620-101	Fundamentals of DC Circuits 1	1
606-310	GD&T Interpretations	1
620-146	Basic Mechanics	1
606-480	CAD Fundamentals - 2D Drawing	1
606-176	CAD Fund-Solid Modeling	1
620-116	Fluid Power 1: Basic Pneumatics	1

Credits 17

Semester 2		
806-154	General Physics 1	4
422-100	Metallurgy	3
620-113	Fundamentals of AC Circuits 1	1
620-111	Programming Fundamentals 1	1
444-335	CNC Mill Fundamentals	1
444-336	CNC Lathe Fundamentals	1
620-117	Fluid Power 2: Basic Hydraulics	1
606-155	Statics & Dynamics 1	1
606-156	Statics & Dynamics 2	1
606-157	Statics & Dynamics 3	1
623-622	Lean Manufacturing	1
620-121	Programmable Automation Controllers (PACs) 1	1

Credits 17

Semester 3		
102-155	Introduction to Project Management	3
801-197	Technical Reporting	3
809-196	Introduction to Sociology	3
442-318	Introduction to Welding	1
620-126	Robotics 1	1

623-169	Lean Manufacturing Systems	3
664-120 or 623-814 or 606-120	Industrial Internet of Things Fundamentals or Reliability Engineering or Strength of Materials	3
Credits		17
Semester 4		
809-198	Introduction to Psychology	3
444-354	Basic CAM	1
623-147	Manufacturing System Design	3
664-189 or 102-134 or 606-152	Automated Systems Integration or Lean Six Sigma or Engineering Graphics - Parametric Modeling	3
664-165 or 623-123 or 606-116	Industrial Automation or Quality Improvement or Design of Machines	3
623-465	Manufacturing Engineering Technology Internship	1
623-180	Manufacturing Engineering Technology Capstone	3
Credits		17
Total Credits		68

General Education Courses

Code	Title	Credits
801-136	English Composition 1	3
801-197	Technical Reporting	3
804-197	College Algebra and Trigonometry with Applications	5
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
806-154	General Physics 1	4