

Associate in Applied Science

Technology & Manufacturing

THE PROGRAM

The Associates of Applied Science (A.A.S.) in Technology & Manufacturing is intended to prepare students for the diverse field of industrial maintenance. Using an interdisciplinary approach, students learn key concepts necessary to successfully construct, install, repair, and maintain a host of electrical and mechanical industrial processes and applications. Students can choose an area of specialty, or they can cross-train in any combination of concentrations for the degree: Computer-Aided Design, Electronics, Manufacturing or Welding. Critical skills include print reading, industrial safety, electrical troubleshooting, preventive maintenance practices, welding, machining, and automated systems diagnosis and repairs. Requires 60 credit hours.

The Technology & Manufacturing program is part of the Manufacturing Career Cluster. Pathways for this degree include Production, Manufacturing Production Process Development, Maintenance, Installation & Repair, Quality Assurance, Logistics & Inventory Control, and Health, Safety & Environmental Assurance. For more information, visit www.careertech.org/career-clusters/.

CAREER OPPORTUNITIES

This degree program prepares students for employment in a number of professions, including but not limited to Automated Manufacturing Technician, Electrical Installer and Repairer, Machine Operator, Welder, and Design, Electronics, or Manufacturing Engineer.

FIRST YEAR

Fall Semester		
CAD 141	Technical Drafting CAD	(4)
MT 104	Intro to Manufacturing & Safety	(3)
MT 215	Manufacturing Processes I	(2)
MAT 150	College Algebra OR	
MT 153	Machine Shop Math	(4)
WT 116	Fundamental Welding Processes	(2)
Spring Semester		
ELE 130	Introduction to PLC Systems	(3)
ENG 103	Composition I OR	
ENG 109	Intro to Technical Report Writing	(3)
MT 102	Metrology	(2)
PHY 150	Introductory Physics	(3)
PHY 151	Physics Lab	(1)
WT 133	Introduction to Fabrication	(2)

SECOND YEAR

Fall Semester		
COM 100	Oral Communications OR	
COM 108	Communications in the Workplace	(3)
	Humanities/Fine Arts/Social/Behavioral Science Elective(s)	(3)
	Specialty Electives	(9)
Spring Semester		
	Specialty Electives	(16)

Additional Sources of Information:

DEPARTMENT

Chase Budziak, Dean of Instruction
 815-825-1708
cbudziak@kish.edu

STUDENT SERVICES

Advising
 815-825-9375

Specialty Electives

Kishwaukee College recommends 21 hours of the following technical electives if a student is interested in:

Manufacturing Technology

MT 101	Print Reading for Industry	(2)
MT 108	Intro to Mfg Maintenance	(2)
MT 205	Metallurgy	(3)
MT 216	Fabrication Practices II	(4)
MT 261	Manufacturing processes II	(4)
MT 264	Fixture Design	(4)
MT 283	Automated Engineer Tech Intern	(3)
MT 290	Introduction to Computer Numerical Control	(4)
MT 294	Advanced Computer Numerical Control	(4)
MT 296	Computer-Aided Manufacturing	(3)

Computer-Aided Design Technology

CAD 131	Print Reading for Construction Trades	(3)
CAD 151	Fundamentals of CAD/AutoCAD	(3)
CAD 152	Fundamentals of CAD/Inventor	(3)
CAD 153	2D Mechanical CAD	(4)

CAD 154	2D Architectural CAD	(4)
CAD 171	Fundamentals of CAD-SolidWorks	(3)
CAD 172	Intermediate CAD-Solidworks	(3)
CAD 251	Modeling Rendering & Animation	(3)
CAD 253	3D Mechanical CAD	(3)
CAD 254	3D Architectural CAD/Revit	(3)
CAD 270	Drafting and Design Internship	(.5-3)

Electronics Technology

ELE 102	PC Maintenance and Repair	(1)
ELE 103	AC Fundamentals Lecture	(2)
ELE 104	DC Fundamentals Lecture	(2)
ELE 110	Solid State Circuits	(3)
ELE 113	Electrical Wiring & Safety	(2)
ELE 114	Industrial Robotics	(1)
ELE 121	DC Fundamentals Lab	(1)
ELE 123	AC Fundamentals Lab	(1)
ELE 142	PC Repair and Configuration	(3)
ELE 206	Amplifier/Operational Amplifier Circuits	(3)
ELE 210	Advanced PLC Systems	(3)
ELE 211	Industrial Motor Controls	(3)

ELE 212	Digital Circuits	(3)
ELE 214	Robotic Principles	(3)
ELE 215	Electronics Internship	(.5-3)

Welding Technology

WT 122	Shielded Metal Arc Welding I	(2)
WT 124	Shielded Metal Arc Welding II	(2)
WT 126	Gas Metal/Flux Core Arc Weld I	(2)
WT 128	Oxyfuel Welding/Cutting	(2)
WT 152	Math for Welding	(3)
WT 226	GMAW/FCAW II	(2)
WT 233	Fabrication II	(2)
WT 244	Welding Layout	(2)
WT 246	Layout II	(2)
WT 257	Certification Welding	(4)
WT 258	GTAW	(2)
WT 268	ASME Pipe Welding I 5G	(4)
WT 269	ASME Pipe Welding II 6G	(4)
WT 280	Specialized Welding	(4)