



Manufacturing Cluster



High School	Grade	English	Math	Science	Social Studies	Other Required Courses		Career & Technical Courses	
	9	English 9	Algebra I	Earth, Life or Physical Science	State History or Civics	Physical Education Health		Metals/Manufacturing ■■■ Intro to Engineering & Design ■ Computer Aided Drafting ■ Intro to Technology & Engineering Education ■	
	10	English 10	Geometry or Algebra II	Biology	US History	Possible GTC Credit		Electricity/Electronics ■■ Computer Applications ■ Principles of Engineering ■ Welding ■	
	11	English 11	Algebra II or Trigonometry	Chemistry	World History Economics	<u>General Education</u> English Composition I Writing Principles College Technical Math 1A College Technical Math 1B Applied Math 1 Applied Math 2 Essential Mathematics General Physics 1 Intro to Psychology Intro to Sociology		Advanced Manufacturing Systems ■■ Machine Shop ■■ Welding ■ Digital Electronics ■ Advanced Welding ■	
	12	English 12	Pre-Calculus or Calculus	Physics	Government Psychology	<u>Cluster Courses</u> Introduction to AutoCAD Introduction to Welding DC/AC I		Cisco Networking ■ Computer Aided Drafting ■■ Engineering Design ■ Computer Integrated Manufacturing ■ Machine Shop ■	
<i>College Placement Assessments (ACT, SAT, etc), Academic/Career Advisement Provided</i>									
Gateway Technical College	Associate Degrees		Technical Diplomas		Certificates		Credit Transfer Opportunities		
	Maintenance, Installation & Repair								<ul style="list-style-type: none"> Franklin University UW-Platteville DeVry University UW-Stout UW-Oshkosh
	Industrial Mechanical Technician								
	Manufacturing Production Process Development								
	Automated Manufacturing System Tech Electromechanical Technology				Manufacturing Maintenance Programming for Manufacturing				
Production									
		CNC Production Technician Welding – Advanced Welding – Pipe Welding – Robotics Welding/Maintenance & Fabrication		CNC Operator					
Careers	Requiring Postsecondary Education				Requiring Baccalaureate Degree				
	<ul style="list-style-type: none"> Application Engineer Automated Manufacturing Systems Tech Certified Welder CNC Machinist – Lathe CNC Machinist – Vertical Machining Center CNC Programmer CNC Set-up Person Computerized Control Systems Tech Electromechanical Designer Electromechanical Sales Engineer Electromechanical Technician Electromechanical Test Technician Field Service Technician Industrial Systems Technician 	<ul style="list-style-type: none"> Instrumentation Technician Journey Level Machine Builder Journey Level Machine Repairer Journey Level Maintenance Machinist Journey Level Millwright Journey Level Tool & Machine Technician Journeyman CNC Machinist Journeyman Machinist Machine Repair Technician Machine Repair Trainee Machine Shop Foreman Maintenance Machine Trainee Millwright Trainee 	<ul style="list-style-type: none"> Multi-Skilled Maintenance Technician Oxy-Acet Welder Pattern Maker PLC Programming Engineer Production Welder Robotic Systems Technician Sales Engineer Set-up Welder Shop Welder Tig / Mig Welder Tool & Die Maker Weld Supervisor Welding Inspector Welding Technician 	<ul style="list-style-type: none"> Automation Engineer Electrical Engineer Electromechanical Technology Instructor Factory Representative Machine Designer Manufacturing Engineer Manufacturing Manager Mechanical Engineer Plant Manager Project Manager Shop Owner Tech Ed Teacher Welding Engineer Welding Instructor Welding Technician 					