Suggested Skills for Success

Advanced Manufacturing Path – Advanced Manufacturing

This career path focuses on planning, managing, and processing materials into products and related activities such as production planning and control, maintenance, and manufacturing/process engineering.

Programs	
Pre-Engineering	Robotics & Automation
Precision Machining	Welding

Career Expectations and Work Preferences

Career Expectations and Work Preferences	• Work at various heights, using ladders, stooping/bending • Stand or sit for long periods of time • Comply with standards/policies/procedures/codes to protect people/data/property • Recommend/develop/perform general/preventative maintenance for tools/equipment • Follow specifications in blueprints/sketches/plans for projects • Participate in planning/fabrication/assembly/inspection of projects • Measure/examine/test completed work to check for defects • Wear personal protective equipment • Read/follow instructions and technical manuals • Understand and recognize hazards associated with equipment/tools/worksites • Working with small tools and design software

Frequently Used Pathway Skills/Abilities/Strengths

Each career path has a specific set of skills/abilities that employees need for success in the industry. It is recommended that students have, are developing or can develop the skills/abilities listed below.

Sharpness of vision/hearing acuity	• Distinguish details/differences visually • Differentiate various sounds/pitch • Perceive distance/depth of objects in space
Communication	• Express/explain thoughts/ideas • Observe/document/maintain/update accurate records • Listen/relay accurate information in written/verbal manner • Use active listening to give full attention/understanding to others • Read/understand blueprints/drawings • Social communication (appropriate social media/workplace conversations)
Physical mobility/strength Eye-hand coordination/dexterity	• Extended standing/sitting, stooping/bending • Use arm-hand steadiness, hand-eye • coordination and manual dexterity to grasp, manipulate, or assemble objects • Ability to use power/hand tools • Lift and carry heavy objects (up to 80 pounds)
Problem-solving/reasoning	• Follow sequenced activities accurately • Work independently with minimal supervision • Apply general rules to specific problems • Develop/follow procedures and processes • Make informed decisions quickly • Study specifications to prepare project layout/work activities • Awareness of surroundings to keep safe
Academic Strengths	• Math (precise measurement/fractions/trig/decimals/percentages/various operations) • Problem solving • Geometry (3-dimensional visualization/spatial understanding/scale) • Science (metals/impacts of heat on metals) • Oral/written communication

*The above was constructed from CT Supervisor and Instructor input and should be considered when exploring career-technical programs at MVCTC.
Note: Final acceptance, for admittance, for a student on an IEP will be determined after an IEP meeting is convened with a MVCTC representative in attendance.