

Programs By Career Cluster:

Manufacturing, Information Technology, Communications

Engineering and Metal Fabrication: Machining D C

Gain a global understanding of precision machining, the process of removing metal to create extremely accurate parts. Learn all aspects of the advanced manufacturing industry, including how to operate CNC (Computer Numerical Controlled) lathes, mills and power saws. The creation of blueprints and designs using industry-driven software and technology is covered, as is performing quality control and inspections. Basic welding techniques will be introduced.



Possible Career Paths:

- *With a 2-year CTE program:* Multiple Machine Tool Operator, increased demand 12.2%*
- *An associate's degree or postsecondary:* CNC Tool Programmer, increased demand 20.8%*
- *A bachelor's degree:* Industrial Engineer, increased demand 7.4%*

Engineering and Metal Fabrication: Welding C

Attain comprehensive knowledge of welding, the art and science of joining metal together. Experience the fabrication of industry-specific products. Common industry standard processes of Shielded Metal Arc Welding (SMAW-Stick), Gas Tungsten Arc Welding (GTAW-TIG), and Gas Metal Arc Welding (GMAW-MIG), as well as plasma arc and oxy-acetylene cutting are covered. The programming (CNC) aspect of machining will be introduced.



Possible Career Paths:

- *With a 2-year CTE program:* Welder increased demand 2.7%*
- *An associate's degree or postsecondary:* Technical Sales Representative (Wholesale and Manufacturing), increased demand 4.3%*
- *A bachelor's degree:* Engineering Technician, increased demand 6.7%*

Computer Technology D C

Gain knowledge of both hardware and software relevant to the information technology (IT) field. Through the Cisco Networking Academy, learn the curriculum of the CompTIA A+, a preferred certification for technical support and IT operational roles. Get introduced to video game design. Hardware studies include computer assembly, preventive maintenance and troubleshooting. Due to the widespread use of mobile devices, these platforms and their operating systems are also a focus.



Possible Career Paths:

- *With a 2-year CTE program:* Computer User Support Specialist, increased demand 17.3%*
- *An associate's degree or postsecondary:* Web Developer, increased demand 13.5%*
- *A bachelor's degree:* Software Developer, increased demand 12.3%*

Digital and Visual Communication C

Learn how individual creativity integrates with graphic/multimedia technical skills and how to communicate using purposeful and powerful visual and audio messages. Utilize industry-standard software to create, design, edit and produce graphic images for web pages, print products, and video.



Possible Career Paths:

- *With a 2-year CTE program:* Merchandise Display Designer, increased demand 2.7%*
- *An associate's degree or postsecondary:* Audio Visual Technician, increased demand 18.2%*
- *A bachelor's degree:* Public Relations Specialist, increased demand 15.4%*

KEY

D Dual Enrollment

C Industry Credentials (or credentialing/ licensing preparation)

*Projected New York State Finger Lakes Region growth for 2018-2028, New York State Department of Labor

Programs & Career Cluster Alignment

Our programs correlate to one or more US Dept. of Education Career Clusters

<u>Program</u>	<u>Correlated Career Clusters</u>	<u>Program</u>	<u>Correlated Career Clusters</u>
Auto Body and Collision Repair Technology	Transportation, Distribution & Logistics Science, Technology, Engineering & Mathematics	Digital and Visual Communication	Arts, A/V Technology & Communications
Automotive Technology	Transportation, Distribution & Logistics Agriculture, Food & Natural Resources	Engineering and Metal Fabrication - Machining	Manufacturing Transportation, Distribution & Logistics
Baking	Hospitality & Tourism Human Services	Engineering and Metal Fabrication - Welding	Manufacturing Transportation, Distribution & Logistics
Carpentry	Architecture & Construction Science, Technology, Engineering & Mathematics	Exercise Science	Human Services Health Science
Child and Family Development	Education & Training Human Services	HVAC/Plumbing	Architecture & Construction
Computer Technology	Information Technology Science, Technology, Engineering & Mathematics	Heavy Equipment Operation and Maintenance	Transportation, Distribution & Logistics Agriculture, Food & Natural Resources
Cosmetology	Human Services Marketing	Nurse Assisting and Associated Health Careers	Health Science
Criminal Justice	Law, Public Safety, Corrections & Security Government & Public Administration	Outdoor Powersports Technology	Transportation, Distribution & Logistics
Culinary Arts	Hospitality & Tourism Human Services	Medical Laboratory Assisting and Phlebotomy	Health Science Agriculture, Food & Natural Resources
Dental Assisting	Health Science	Residential and Commercial Electrical	Architecture & Construction Science, Technology, Engineering & Mathematics
		New Visions Health Professions	Health Science

For details on Career Clusters, visit the U. S. Department of Education website or Advance CTE (careertech.org)