Program Overview for Employers

The Computer Integrated Machining Technology (CIMT) program for deaf and hard-of-hearing students at Rochester Institute of Technology (RIT) prepares students for careers in the precision machining and precision optics manufacturing industries. Graduates are well qualified and prepared for jobs that include computer numerical control set-up, computer numerical control operator and programmer, die maker, general machinist, inspector, instrument maker, mold maker, and tool maker as these jobs apply to both the precision machining and precision optics manufacturing industries.

Degree Awarded
Associate in Occupational Studies (AOS)

Potential Job Candidates
Approximately 35 students currently are enrolled.

Cooperative Education (Co-op)
Component Required
Students are required to complete one 10-week summer co-op block.

Equipment and Facilities
Students use precision machines common to industrial tool rooms and industrial shop floors. They learn to set up and operate lathes (manual and computer assisted), vertical milling machines (manual and computer assisted), CNC Wire Electrical Discharge Machines, horizontal milling machines, vertical rotary grinder, double-sided planetary machines, indexing head, band saw, glass bead/sand blaster, drill press, shear and press brake.

Student Skills and Capabilities – Preparation for a Career
CIMT students qualify for various positions in the precision machine industry and the precision optics manufacturing industry. They are proficient at creating and examining 3D models and reading blueprints, and are skilled in the set-up and operation of lathes, milling machines, wire EDMs and grinders. Students receive extensive safety training and recognize safety as a top priority.

Computer Numerical Control (CNC): Students receive a full year of set-up and operation instruction on a Hardinge VMC-600 three axis machining center (Fanuc 0i-MB control) and a Hardinge CHNC two axis turning center (Fanuc 0t control), and a Sodick AQ300L wire EDM (LN1W control). They learn to use G and M code programming, both manually and in conjunction with MasterCam software. They can produce parts with linear and circular interpolation, as well as numerous canned cycles and sub-routines. Students complete two trigonometry courses specially designed to solve complex machining problems.

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Selected Software Used to Develop Technical Skills

- AutoCad
- MasterCam
- Microsoft Excel
- Microsoft PowerPoint
- Microsoft Word
- Microsoft Windows
- SolidWorks
- Visual Mill

Selected Technical Courses Leading to an Associate Degree

- Adv Machining Capstone
- Algebra
- Blueprint Reading
- CAD Applications in ET
- CIMT 1-4
- Computing Tools for ET
- CNC Graphics
- CNC Solids
- CNC Toolpaths
- Engineering Fundamentals
- Geometry
- Geometric Dimensions and Tolerances
- Industrial Materials
- Introduction to CNC
- Lens Design & Application
- Manufacturing Materials
- Manufacturing Processes
- Optical Testing
- Precision Measurement
- Precision Optics Mfg I & II
- Trigonometry for Coordinate
- Analysis I & II

The following employers throughout the country have hired Computer Integrated Machining Technology students and graduates:

- Allen Bradley Corp.
- Bausch and Lomb
- Boeing
- Caterpillar, Inc.
- Disney World
- Eastman Kodak Company
- Emerson Electronics
- ET Precision Optics
- General Motors
- Gleason Works
- IBM
- Micro Instrument
- Morgood Tools
- MWI
- NASA
- Naval Aviation Depot
- Optical Gaging Products
- Rochester Precision Optics
- Rock Island Arsenal
- Trident Precision Machine
- U.S. Army Depot

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RIT/NTID co-op students, graduates and alumni provide employers with highly trained, highly motivated employees with excellent skills. We appreciate your interest in our co-op students and graduates and will work with you through the recruiting process to help you hire the right employee. For your convenience, access further information and services on our website at www.rit.edu/ntid/coops/jobs/.