## **NTID**

## Computer Integrated Machining Technology Program Outcomes Assessment Plan and Report for AY 2007-2008

Program Goal: Students develop job entry skills for the precision machining area. Graduates have a working knowledge of manufacturing processes, equipment, and software. Technical jobs may include lathe operators, milling machine operators, computer numerical control (CNC) operators, and machinists.

Critical Outcomes for all Students		Assessment of Outcomes		Timeline		Results	
Domain/Task/ Capability	Performance Criteria/ Benchmarks	Instrument/ Opportunity	Assessment of Performance	Develop	Collect	Summarization of Results	Use of Results
1. Technical	Produce machined parts to specifications: a. set up and operate two axis, lathes, mills, and grinders to a tolerance of +003 b. apply math and engineering graphics skills to solve machining problems c. use precision measuring instruments and computers to control quality	Students complete a timed, competency based final exam for CIMT 4	Given a print, material and lab access, 85% of the students will produce 80% of the specified features in tolerance.	Spring 20063	Begining Spring 20073	For quarter 20073 (n=7), 57% of the students acquired at least "acceptable" level of technical skills.	The results are not positive. This is our first attempt, and need more data to determine what needs to be adjusted.
2. Technical	Create CNC programs using solid modeling techniques; create, edit, and verify toolpaths; copy and paste parameters, toolpaths and tool associative geometry	Students complete a timed, competency based final exam in CNC Toolpaths.	Given a print, material and lab access, 85% of the students will produce 80% of the specified features in tolerance	Spring 20063	Begining 20073	For quarter 20073 (n=6), 83% of the students acquired "acceptable" level of technical skills.	The results are positive. This is our first attempt, and need more data to determine what needs to be adjusted.

3. Job Skills	Students will demonstrate problem-solving, decision-making, responsibility, pride in self and work performance, and other learned behaviors and attitudes necessary for entering the work force and being self-sufficient.	Co-op Supervisor Evaluation Form	Score of 3 or higher on RIT Supervisor On- line Co-op Evaluation system, sections "Interaction in the Work Environment," "Quality of Work," and Communication and Literacy Skills."	20064	Beginning Summer 20074		Met expectations and no action needed.
4. Co-op Work Experience		Co-op Supervisor Evaluation Form	Score of 3 or higher on RIT On-line Co-op Evaluation system, overal student job performance question.	20064	Beginning Summer 20074		Met expectations and no action needed.
5. Job Placement	Students will demonstrate technical competency on the job in precision manufacturing industries which will allow them access to participation within our global society.	NCE	90% of graduates will be employed in the field of precision manufacturing.	20072	Beginning 20081	For AY 2005- 2006 n=5; 100% of students seeking employment were working	Met expectations and no action needed.
6. Student Satisfaction	Graduating students will indicate satisfaction with program and courses.	Survey	85% of students will rate all aspects of the program and courses as satisfactory or above.	20071	Beginning Fall 20071	No survey was developed.	We will develop a survey and poll during AY 20081 during the Department

							of Engineering Studies' 7th quarter curriculum mask.
7. Alumni Satisfaction	Alumni will indicate satisfaction with the instruction they received at NTID/RIT	Alumni Survey	80% of Alumni will rate their NTID/RIT experience as Good or Excellent (5-point scale) for the instruction they received.	AY 2007- 2008	2008	For Engineering Studies Department AOS & AAS alumni who graduated from 2001-2006 and responded to the 2007 alumni survey, N=12; 91.7% indicated satisfaction.	Met expectations and no action needed.

## **Comments:**

Computer Integrate Machining Technology (CIMT) acquired AOT's precision fabrication skill sets and incorporate into the curriculum. The curriculum will start AY2008-2009.

The first group of potential students will utilize precision fabrication during 20092 quarter. Therefore, we will add another Technical Assessment for the acquired skills added to the curriculum.

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