NTID
Computer Integrated Machining Technology Program Outcomes Assessment
Plan and Report for AY 2011-2012

Program Goal: Program Goal: Students develop job entry skills for the precision machining and/or precision optics manufacturing. Graduates have a working knowledge of manufacturing processes, equipment, and software. Technical jobs may include machinists and lathe and milling machine operators, both traditional and CNC, for the precision machining and/or precision optics industries.

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 and optical elements to specifications: a. set up and operate two axis, lathes, mills, grinders and polishers 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 and Precision Optics Manufacturing I.	Given a print, material and lab access, 85% of the students will produce 80% of the specified features in tolerance.	20073	Spring Quarter 20083	Spring 113 n=8 75% of the students met 80% or above specifications in producing a machined part.	Barely met expectations and no action required. The shift in percentage occured because faculty converted projects and added geometric tolerance “as needed” for upcoming semester courses. We had 10 weeks to offer materials, instead of 15 weeks. Yes, we will monitor this event during the semester cycle.
2. Technical	Create CNC programs using solid modeling techniques; create, edit,	Students complete a timed, competency based final exam in CNC	Given a print, material and lab access, 85% of the students will produce 80% of the	20063	Spring Quarter 20083	Spring 113 n=8	Met expectations and no action required.

	and verify toolpaths; copy and paste parameters, toolpaths and tool associative geometry	Graphics and CNC Solids.	specified features in tolerance			88% of the students met 80% or better on CNC programming requiremets.	
3. Technical	Develop a student-based project that simulates actual job related skills found in industry: a. apply concepts of project planning and development b. demonstrate ability to work in a team atmosphere. c. demonstrate time management skills. d. show abilities to control budget and costs	Students must complete and present a capstone project within the time limit of the fall quarter in Automated Machining (0813-258) or Precision Optics II (0813-245)	Given a contract that specifies budget limits, technical specifications, and time constraints, 85% of the students will produce all of the contract expectations.	20083	Beginning Fall 20091	Fall 111 n=11 100% of the students met 80% or above specifications in producing and presenting a capstone project according to contract expectations.	Met expectations and no action required.
Technical skills evaluation							
4. Job Skills	Students will demonstrate problem-solving, decision-making, responsibility, pride in self and work performance,	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	On-going	Beginning Summer 20084	For students in the Engineering Studies Department the mean ratings by co-op supervisors who completed the evaluation online during the four quarters 20104-	Met expectations and no action required.

	and other learned behaviors and attitudes necessary for entering the work force and being self-sufficient.		Work," and Communication and Literacy Skills."			20113 was as follows: 4.73 (N=16) for Interaction 1 4.75 (N=16) for Interaction 2 4.75 (N=16) for Interaction 3 4.88 (N=16) for Interaction 4 4.69 (N=16) for Interaction 5 4.75 (N=16) for Quality of Work 1 4.94 (N=16) for Quality of Work 2 4.88 (N=16) for Communication 1 4.64 (N=16) for Communication 2 4.87 (N=16) for Communication 3	

5. Co-op Work Experience	Students will demonstrate technical competency on the job for an approved co-op employer, which will allow them access to participation within our global society.	Co-op Supervisor Evaluation Form	Score of 3 or higher on RIT On-line Co-op Evaluation system, sections "Problem Solving" and "Technical Skills."	On-going	Beginning Summer 20084	For students in the Engineering Studies Department the mean ratings by co-op supervisors who completed the evaluation online during the four quarters 20104-20113 was as follows: 4.88 (N=16) for Overall Satisfaction 4.44 (N=16) for Problem Solving 1 4.38 (N=16) for Problem Solving 2 4.88 (N=16) for Technical Skills 1 4.93 (N=16) for Technical Skills 2 4.55 (N=16) for Technical Skills 3 4.53 (N=16) for Technical Skills 4	Met expectations and no action required.
6. Job Placement	Students will demonstrate technical	NCE	90% of graduates will be employed in	On-going	Beginning Winter 20092	For AY 2009-2010 N=2; 100% of students in	Met expectations and no

	competency on the job for an approved co-op employer, which will allow them access to participation within our global society.		the field of precision manufacturing and/or precision optics.			Computer Integrated Machining Technology who were seeking employed were working. Two additional graduates were continuing in school.	action required.
7. 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.	On-going	Beginning Fall 20081	For quarter 20111 (n=9), 88% of students “agreed” or “strongly agreed” that “Overall, I am satisfied with the courses in this program.” Also, 100% of students “agreed” or “strongly agreed” that “Overall, I believe that this program will help me with my career.”	Met expectations and will continue to seek ways to improve the overall satisfactory rating.
Comments:							
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