

NTID
Computer Integrated Machining Technology Program Outcomes Assessment
Plan and Report for AY 2005-2006*

Program Goal: Students develop job entry skills for positions in the precision machining industry as toolmakers, diemakers, mold makers, inspectors, lathe operators, milling machine operators, instrument makers, numerical control set-up persons, computer numerical control set-up persons, numerical control operators, computer numerical control operators, programmers (numerical control or computer numerical control), and machinists (all around).

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. First Year CIMT Technical Skills	Produce machined parts to blueprint specification: 1 a. set up and operate lathes, mills, and grinders to a tolerance of + - .003 b. apply math and blueprint reading skills to solve machining problems c. use precision measuring instruments and computers to control quality	Students complete: • timed competency - based mid-quarter skills exams during MPT I, II, and III 1 • timed competency-based skills exams at the end of MPT I, II, and III 1 (minimum of 80%) • comprehensive exams at the end of Blueprint Reading I and II and Precision Measurement (C or better)	See CIMT First Year Technical Skills Profile (attached)				
2. First Co-op Employment Skills	Successfully complete a cooperative work experience (co-op):	Students complete: • 10 weekly worksheets (formative) • co-op		Summer 2002	Fall 2002		

	<ul style="list-style-type: none"> a. prepare resumes, seek employment b. demonstrate safe work habits c. investigate salaries and benefits d. develop technical skills e. develop interpersonal skills 	<p>performance self - evaluation (formative)</p> <p>Employers complete a formal evaluation (summative).</p>					
3. Second Year CIMT Technical Skills	<p>Produce machined parts to blueprint specification:</p> <ul style="list-style-type: none"> 1 <ul style="list-style-type: none"> a. set-up and operate lathes, mills, and grinders to a tolerance of + - .001 b. program, set-up, and operate Proto-Trak mills and lathes c. apply math and blueprint reading skills to solve machining problems and to write programs d. use precision measuring instruments and computers to control quality 	<p>Produce machined parts to blueprint specification:</p> <ul style="list-style-type: none"> 1 <ul style="list-style-type: none"> a. set-up and operate lathes, mills, and grinders to a tolerance of + - .001 b. program, set-up, and operate Proto-Trak mills and lathes c. apply math and blueprint reading skills to solve machining problems and to write programs d. use precision measuring instruments and computers to control quality 	See CIMT Second Year Technical Skills Profile (attached)				
4. Second Co-	Successfully	Students		Summer	Fall		

<p>op Employment Skills</p>	<p>complete a cooperative work experience (co-op): a. prepare resumes, seek employment b. demonstrate safe work habits c. investigate salaries and benefits d. develop technical skills e. develop interpersonal skills</p>	<p>complete: • 10 weekly worksheets (formative) • co-op performance self - evaluation (formative) Employers complete a formal evaluation (summative)</p>		2002	2003		
<p>5. Third Year CIMT Technical Skills</p>	<p>Produce machines parts to blueprint specification: 1 a. set-up and operate lathes, mills, grinders to a tolerance of + - .001 b. program, set-up, and operate Proto-Trak mills and lathes c. apply math and blueprint reading skills to solve machining problems and to write programs for CNC machines d. use precision</p>	<p>Students complete: • timed competency-based mid-quarter skills exams during Advanced Machining and Processes and CNC I, II, and III 1 • timed competency-based skills exams at the end of Advanced Machining and Processes and CNC I, II, and III 1 • comprehensive exams at the end of Advanced Precision Management and</p>	<p>See CIMT Third Year Technical Skills Profile (attached)</p>				

	measuring instruments and computers to control quality e. program, set-up, and operate 3 axis CNC machining and turning centers	Manufacturing Analysis (C or better based on skill profile)					
<i>Students will gain entry-level employment in CIMT field.</i>		<i>NCE</i>	<i>_____ % of graduates will be employed in the field.</i>				
<i>Graduating students will indicate satisfaction with program courses.</i>		<i>Student Satisfaction Survey</i>	<i>_____ % of students will rate program courses as satisfactory better as measured by a score of _____ or above in Student Satisfaction Survey.</i>				
<i>Alumni will indicate satisfaction related to program.</i>		<i>Alumni Survey</i>	<i>_____ % of alumni will indicate an average score of _____ or above on related components of Alumni Survey.</i>				

Comments:

*The curriculum for this program of study was modified during AY 2005-06 and a new Outcomes Assessment Plan was written. Data for the new plan will be collected and reported for students who enter the modified program beginning AY 2006-07.

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