## **NTID**

## Computer Integrated Machining Technology Program Outcomes Assessment Plan and Report for AY 2006-2007

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<br>Students |                                                                                                                                                                                                                                                                                | Assessment of Outcomes                                                   |                                                                                                                      | Timeline        |                             | Results                                           |                   |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------|---------------------------------------------------|-------------------|
| Domain/Task/<br>Capability            | Performance<br>Criteria/<br>Benchmarks                                                                                                                                                                                                                                         | Instrument/<br>Opportunity                                               | Assessment of Performance                                                                                            | Develop         | Collect                     | Summarization of Results                          | Use of<br>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<br>Spring<br>20073 | Preliminary assessment checklist is in the works. | NA                |
| 2. Technical                          | Create CNC programs using solid modeling techniques; create, edit, and verify toolpaths; copy and paste parameters, toolpaths and tool                                                                                                                                         | 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<br>20063 | Begining 20073              | Preliminary assessment checklist is in the works. | NA                |

|                             | associative geometry                                                                                                                                                                                                       |                                           |                                                                                                                                                                                   |       |                              |    |    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|----|----|
| 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<br>Supervisor<br>Evaluation<br>Form | Score of 3 or higher on RIT Supervisor Online Co-op Evaluation system, sections "Interaction in the Work Environment," "Quality of Work," and Communication and Literacy Skills." | 20064 | Beginning<br>Summer<br>20074 | NA | NA |
| 4. Co-op Work<br>Experience | Students will demonstrate technical competency on the job in precision manufacturing industries which will allow them access to participation within our global society.                                                   | Co-op<br>Supervisor<br>Evaluation<br>Form | Score of 3 or<br>higher on RIT<br>On-line Co-op<br>Evaluation<br>system, sections<br>"Problem<br>Solving" and<br>"Technical<br>Skills."                                           | 20064 | Beginning<br>Summer<br>20074 | NA | NA |
| 5. Job<br>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<br>20081           | NA | NA |
| 6. Student<br>Satisfaction  | Graduating students will indicate                                                                                                                                                                                          | Survey                                    | 85% of students will rate all aspects of the                                                                                                                                      | 20071 | Beginning<br>Fall<br>20071   | NA | NA |

| satisfaction<br>with program<br>and courses. | program and courses as satisfactory or above. |  |  |  |  |  |  |
|----------------------------------------------|-----------------------------------------------|--|--|--|--|--|--|
| Comments:                                    |                                               |  |  |  |  |  |  |
| /ssl<br>Rev: 07/12/2007                      |                                               |  |  |  |  |  |  |

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