Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: __Manufacturing & CNC Technology/Cad-Cam Mastercam/Skills Certificate_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Design and construct 2D, 3D, Lathe, Horizontal and multi axis part geometry.	mcnc76c, 76h,76m			X	
2. Select tools and produce toolpaths with constucted and imported geometry.	mcnc76c, 76h,76m			X	
3. Verify toolpaths and create word address programs for CNC machines.	mcnc76c, 76h,76m			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: __Manufacturing & CNC Technology/CNC Research and Development Machinist/_COAA_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcomes	Courses to be assessed (eg PE21, PE22)	2010-11	2011-12	2012-13	2013-14
1. Construct and inspect machined projects using conventional and CNC equipment using word address programs.	mcnc71,77 75a,75b,75c		X		
2. Apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.	mcnc72			X	
3. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			

Program Level Outcome Assessment Plan
2010-11

4. Analyze, construct, and inspect/diagrams to repair physical and electrical components.	auto53a,53b	N/A			
5. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: __Manufacturing & CNC Technology/CNC Research and Development Machinist/A.S. Degree_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Construct and inspect machined projects using conventional and CNC equipment using word address programs.	mcnc71,77 75a,75b,75c		X		
2. Apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.	mcnc72			X	
3. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			

4. Analyze, construct, and inspect/diagrams to repair physical and electrical components.	auto53a,53b	N/A			
5. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: __Manufacturing & CNC Technology/Product Model Making/COAA_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Construct and inspect machined projects using conventional and CNC equipment using word address programs.	mcnc71, 75a,75b		X		
2. Design and construct three dimensional objects	arts10a,10b	N/A			
3. Create part geometry using Solidworks/Pro Engineer cad software.	cdi60,70	N/A			

4. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			
5. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree:____Manufacturing & CNC Technology/Product Model Making/A.S. Degree_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Construct and inspect machined projects using conventional and CNC equipment using word address programs.	mcnc71, 75a,75b		X		
2. Design and construct three dimensional objects	arts10a,10b	N/A			
3. Create part geometry using Solidworks/Pro Engineer cad software.	cdi60,70	N/A			

4. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			
5. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: Manufacturing & CNC Technology/Manufacturing Systems tech/COA_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Demonstrate safe operation of basic and specialized equipment.	mcnc71, 77,75a		X		
2. Demonstrate entry level programming skills for computer numerical controlled equipment	mcnc71,75a		X		
3. Analyze, construct, and inspect parts/diagrams to repair physical and electrical components	auto53a,53b, mcnc64			X	

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: __AT_____

Program/Certificate/Degree: Manufacturing & CNC Technology/CNC Machinist/COAA_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcomes	Courses to be assessed (eg PE21, PE22)	2010-11	2011-12	2012-13	2013-14
Program Level Outcome Assessment Plan 2010-11					
1. Construct and inspect machined projects using CNC equipment with word address programs.	mcnc71, 75a,75b,75c		X		
2. Apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.	mcnc72			X	
3. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			

4. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	
5. Advanced machining skills by independently constructing projects.	mcnc56,56x		X		

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: ___Manufacturing & CNC Technology/CNC Machinist/AS degree_____

Number of authors/participants: 2_____ Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcome Assessment Plan 2010-11					
Program Level Outcomes	**Courses to be assessed (eg PE21, PE22)**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
1. Construct and inspect machined projects using CNC equipment with word address programs.	mcnc71, 75a,75b,75c		X		
2. Apply geometric dimensioning and tolerance standards to inspect drawings and inspect parts using a coordinate measuring machine.	mcnc72			X	
3. Differentiate and analyze the materials and processes used in manufacturing.	mcnc64	X			

4. Produce toolpaths with constructed and imported geometry using Mastercam.	mcnc76c, 76h,76m			X	
5. Advanced machining skills by independently constructing projects.	mcnc56,56x		X		

Program Level Outcome Assessment Plan

Department: __Manufacturing & CNC Technology_____

Division: _AT_____

Program/Certificate/Degree: Manufacturing & CNC Technology/Machine Operator/Skills Certificate_____

Number of authors/participants: 2_____   Contact Person: Mike Appio

Instructions: For each program level outcome in this program indicate in which year you will collect course assessment data. To facilitate this, if using embedded assessments, list courses to assess for assessment of this PLO. During a five-year period, it is assumed that all outcomes will have been assessed. Comprehensive Review is scheduled for Spring 2014.

Program Level Outcomes	Courses to be assessed (eg PE21, PE22)	2010-11	2011-12	2012-13	2013-14
1. Set up and operate conventional and CNC machines safely.	mcnc71,75a, 75b		X		
2. Construct and inspect machined projects using conventional and CNC equipment.	mcnc71,75a, 75b		X		
3. Construct word address programs to machine projects.	mcnc75a, 75b		X		

Program Level Outcome Assessment Plan 2010-11