

Student Name _____ Instructor Name _____

High School or Vocational Center _____ Grade _____

**COMPETENCY CHECKLIST FOR ADVANCED TECHNICAL PLACEMENT
Manufacturing Technologies**

**MT 205A
MACHINE TECHNOLOGY
3 Credit Hours**

To meet the standards for articulated credit, the student will demonstrate competency in the tasks listed below. Competency standards will be determined by the high school instructor.

Task	Satisfactory	Unsatisfactory
GENERAL TASKS		
Exhibit an understanding of safe operating procedures for each machine tool in the course		
Display a willingness to follow all safety procedures		
Use the proper terminology for each machine and tool used in the course		
Read and follow a Process / Setup Sheet		
CNC		
Describe the History and Definition of CNC		
Identify the basic parts and operation of the CNC milling/turning center		
Outline and identify each of the CNC Axis		
Be able to describe the CAD/CAM/CNC process		
CNC Mill		
Demonstrate the ability to create a milling program/programs complete with the following:		
• Speeds and Feeds Calculated		
• Cutter Diameter Compensation		
• Canned Cycles		
• Facing, Contouring, Pocketing, and Drilling Operations		
• Absolute and Incremental Programming		
• Automatic Tool Changes		
Demonstrate the ability to set Tool and Work Offsets		
Describe the process to create successful First Part run offs safely		

Task	Satisfactory	Unsatisfactory
CNC Lathe		
Identify the basic parts and functions of the CNC Turning Center		
Demonstrate the ability to create and trouble shoot a Lathe CNC program complete with the following:		
<ul style="list-style-type: none"> • Speeds and Feeds Calculated 		
<ul style="list-style-type: none"> • TNR Compensation 		
<ul style="list-style-type: none"> • Roughing, Finishing, and Drilling Canned Cycles 		
<ul style="list-style-type: none"> • Facing, O.D. Turning, Tapering, Shouldering, and Grooving/Parting 		
<ul style="list-style-type: none"> • Absolute and Incremental Programming 		
<ul style="list-style-type: none"> • Automatic Tool Changes 		
Demonstrate the ability to set Tool and Work Offsets		
Describe the process to create successful First Part run offs safely		

Instructor's Signature _____ Date _____