MS-CPAS Blueprint Summary

Assessment: Precision Machining and Manufacturing Technology
Test Code: 21363Y0-2010
CIP Code: 480501
Course Codes:
Type: PS

The MS-CPAS Blueprint Summary indicates the number of assessment questions related to each unit on the assessment and indicates the relative emphasis placed on each unit. All of the listed competencies will appear on the assessment, but because of the length of the assessment, not every competency will be equally represented in the assessment.

The MS-CPAS Blueprint Summary includes a variety of information, which is explained below:

Terms and Definitions	
Assessment:	This signifies the name of the assessment, which corresponds with the name of the pathway or program.
CIP Code:	Developed by the U.S. Department of Education's National Center for Education Statistics (NCES), CIP codes are a federal coding system utilized for assessment and reporting of fields of study and program completions activity tracking.
Test Code:	A unique code that serves to numerically identify a specific assessment
DOK Levels:	Based on Webb's Depth of Knowledge (DOK), this signifies the assessment item difficulty factor to be expected in each unit. The three levels are as follows: *1 = Recall and Reproduction, 2 = Skills and Concepts, 3 = Short-term Strategic Thinking* **Some postsecondary programs will not use DOK levels until the next revision.**
Instructional Hours:	The total number of hours assigned to a unit per the pathway's curriculum
Total Items:	The total number of items assigned to each unit on the assessment. It is calculated as follows: *(Unit Instructional Hours / Total Instructional Hours) * Total Active Items*
Active Items:	The number of items on the assessment that will be graded
Field-test Items:	The number of items that are being field-tested, or piloted, to determine their eligibility for inclusion as an Active Item on future assessments. These items are not graded and, thus, will not impact the student's final score.
Total Assessed Items:	The total number of items on the given assessment. It is calculated as follows: *Active Items + Field-test Items*

For more information regarding this MS-CPAS Blueprint Summary, please contact the Research and Curriculum Unit by phone at 1.866.901.7433 or by e-mail at helpdesk@rcu.msstate.edu.

Assessment:	Precision Machining and Manufacturing Technology	DOK Level(s)	Instructional Hours	Total Items
Test Code:	21363Y0-2010			
CIP Code:	480501			
Total Hours:	20.0			
MST 1114: Power Machinery I			**4**	**13**
1. Discuss and apply general machine shop safety. 2. Discuss, set up, and perform operations using a band saw and drill press safely. 3. Perform cutting operations to project specifications safely. 4. Set up a milling machine and perform milling operations safely.				
MST 1124: Power Machinery II			**4**	**13**
1. Discuss and apply general machine shop safety. 2. Prepare the engine lathe and perform various operations according to specifications safely. 3. Explain and use a precision grinder safely. 4. Discuss, set up, and perform operations using a drill press safely. 5. Set up and perform vertical milling operations safely according to project specifications.				
MST 1313: Machine Tool Mathematics			**3**	**11**
1. Solve mathematical problems relating to machine tool activities. 2. Describe and apply trigonometric functions. 3. Identify properties of a circle and solve mathematical problems relating to the properties, and calculate area and volume for geometric objects.				
MST 1413: Blueprint Reading			**3**	**11**
1. Identify, describe, and apply dimensions and tolerances. 2. Identify, describe, and apply auxiliary views, finishes, materials, section lines, and cutting plane lines.				
MST 1423: Advanced Blueprint Reading			**3**	**11**
1. Describe features related to alterations, chamfers, and knurls. 2. Describe the purpose and use of assembly drawings. 3. Identify and apply the use of geometric tolerance symbols.				
MST 1613: Precision Layout			**3**	**11**
1. Discuss and apply general machine shop safety. 2. Identify precision layout instruments. 3. Perform precision layout safely.				
			Active Items	**70**
			Field-Test Items	**30**
			TOTAL ASSESSED ITEMS	**100**