



# SEC - Agriculture and Natural Resources Blueprints

This document contains the blueprints for the concentration areas in secondary Agriculture and Natural Resources I.

Course Code(s)	Test Code	Program Name	Supplemental Materials/Notes
991100, 991102, 991103	10183Y1-2012	Agriculture and Natural Resources	
991101, 001104, 991105	10183Y2-2012	Agriculture and Natural Resources	

Curriculum	Perkins Assessment 2016-17		Teacher Evaluation Pilot 2016-17			
	Y1 Post-Test	Y2 Post-Test	Y1 Baseline	Y1 Post-Test	Y2 Baseline	Y2 Post-Test
Agriculture and Natural Resources	MS-CPAS2*	MS-CPAS2*	NA*	NA*	NA*	NA*

\* These assessments are subject to change based on funding and policy changes/updates.

Information for test coordinators will be disseminated on the ordering process for the national certification by the Research and Curriculum Unit at Mississippi State University.



# MS-CPAS2 Blueprint Summary

**Assessment:** Agriculture and Natural Resources  
**Test Code:** 10183Y1-2012  
**CIP Code:** 010003  
**Course Codes:** 991100, 991102, 991103  
**Type:** CP

The MS-CPAS2 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-CPAS2 Blueprint Summary includes a variety of information, which is explained below:

Terms and Definitions	
<b>Assessment:</b>	This signifies the name of the assessment, which corresponds with the name of the pathway or program.
<b>CIP Code:</b>	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.
<b>Test Code:</b>	A unique code that serves to numerically identify a specific assessment
<b>DOK Levels:</b>	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: <i>1 = Recall and Reproduction, 2 = Skills and Concepts, 3 = Short-term Strategic Thinking</i> <b>Some postsecondary programs will not use DOK levels until the next revision.</b>
<b>Instructional</b>	The total number of hours assigned to a unit per the pathway's curriculum
<b>Total Items:</b>	The total number of items assigned to each unit on the assessment. It is calculated as follows: <i>(Unit Instructional Hours / Total Instructional Hours) * Total Active Items</i>
<b>Active Items:</b>	The number of items on the assessment that will be graded
<b>Field-test Items:</b>	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.
<b>Total Assessed Items:</b>	The total number of items on the given assessment. It is calculated as follows: <i>Active Items + Field-test Items</i>

For more information regarding this MS-CPAS2 Blueprint Summary, please contact the Mississippi Assessment Center by phone at 1.866.901.7433 or by e-mail at [helpdesk@rcu.msstate.edu](mailto:helpdesk@rcu.msstate.edu).



Assessment: <b>Agriculture and Natural Resources</b> Test Code: 10183Y1-2012 CIP Code: 010003 Total Hours: 170	DOK Level(s)			Instructional Hours	Total Items
	1	2	3		
<b>Unit 1: Not on CPAS</b>					
<b>Unit 2: Not on CPAS</b>					
<b>Unit 3: Not on CPAS</b>					
<b>Unit 4: Science of Animals</b>	1	2		35	16
1. Explore the animal agriculture industry and enterprises. 2. Investigate the anatomy and physiology of animals. 3. Describe important elements of digestion and nutrition in animals. 4. Examine the role of genetics and breeding in animal production.					
<b>Unit 5: Science of Plants</b>	1	2		30	14
1. Explore the anatomy and physiology of a plant. 2. Investigate common methods of plant reproduction. 3. Apply classification methods to plants. 4. Apply principles of plant nutrition. 5. Explore basic concepts of pest management to include insect damage, weed damage, and diseases.					
<b>Unit 6: Science of Soil</b>	1	2		30	14
1. Demonstrate an understanding of the impact of soil as a natural resource. 2. Investigate the use of the land capability classification system. 3. Investigate the chemical properties of soils.					
<b>Unit 7: Agricultural Lab Operations and Safety</b>	1			75	36
1. Identify safety procedures and safety devices for the agricultural workplace. 2. Identify common equipment, tools, safety procedures and performing the various welding processes. 3. Apply safety procedures and perform tasks using oxyacetylene equipment. 4. Not on CPAS					
<b>Active Items</b>					<b>64</b>
<b>Field-Test Items</b>					<b>20</b>
<b>TOTAL ASSESSED ITEMS</b>					<b>84</b>

# MS-CPAS2 Blueprint Summary

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**Assessment:** Agriculture and Natural Resources  
**Test Code:** 10183Y2-2012  
**CIP Code:** 010003  
**Course Codes:** 991101, 001104, 991105  
**Type:** CP

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<b>Assessment:</b> Agriculture and Natural Resources						
<b>Test Code:</b> 10183Y2-2012				<b>DOK Level(s)</b>	<b>Instructional Hours</b>	<b>Total Items</b>
<b>CIP Code:</b> 010003						
<b>Total Hours:</b> 185						
<b>Unit 8: Not on CPAS</b>						
<b>Unit 9: Science of Agricultural Environment</b>	1	2			15	6
1. Examine the relationship of the atmosphere to the earth's environment. 2. Use weather and climate information in making decisions about the environment. 3. Assess air quality and identify sources of air pollution. 4. Explore concepts and practices related to wildlife conservation and management.						
<b>Unit 10: Water Quality Management</b>	1	2			15	6
1. Explore concepts of water usage and quality. 2. Describe important water management practices. 3. Describe how wastewater is treated to maintain water quality.						
<b>Unit 11: Science of Forestry and the Environment</b>	1	2			15	6
1. Examine basic principles of forest dendrology and mensuration. 2. Discuss the relationship of forestry to environmental quality and economic development.						
<b>Unit 12: Wildlife and the Environment</b>	1	2			15	6
1. Examine the relationships of wildlife well-being and environmental quality. 2. Investigate approaches in protecting and managing wildlife species.						
<b>Unit 13: Environmental Stewardship</b>	1				20	10
1. Discuss concepts of sustainable agriculture. 2. Explore the services of agencies and organizations that protect and maintain the environment. 3. Use appropriate procedures for management and disposal of solid waste. 4. Select appropriate procedures for managing hazardous waste materials.						
<b>Unit 14: Construction/Agricultural Equipment Operation and Maintenance</b>	1	2			75	32
1. Inspect, maintain, and repair agricultural equipment. 2. Perform reconditioning of agricultural machinery and equipment. 3. Perform welds with shielded metal arc welding (SMAW) equipment. 4. Perform welds with gas metal arc welding (GMAW) equipment. 5. Cut metal with plasma arc cutter. 6. Select and demonstrate proper equipment for a specific construction job and develop a bill of materials for a specific job.						
<b>Unit 15: Agricultural Business Management and Process</b>	1	2			30	14
1. Explore basic principles of agricultural economics and marketing. 2. Discuss principles and practices of an agricultural business. 3. Explore the principles and applications of precision farming operations.						
					<b>Active Items</b>	<b>80</b>
					<b>Field-Test Items</b>	<b>20</b>
					<b>TOTAL ASSESSED ITEMS</b>	<b>100</b>