

SEC – Energy Technology Blueprints

This document contains the blueprints for the concentration areas in secondary Energy Technology. The competencies and hours for this blueprint were obtained from the curriculum framework.

Year 1 students will be assessed using National Certification (N1).

Year 2 students will be assessed using Performance Based (PB) assessment.

Course Code(s)	Test Code	Program Name
994200, 994202, 994203	11593N1-2013	Energy Technology
994201, 994204, 994205	11593PB-2013	Energy Technology

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
Energy Technology	National Certification*	PBA*	NA*	NA*	NA*	NA*

For 11593N1-2013 Energy Technology national certification, see <http://getintoenergy.kuder.com/>

* 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: Energy Technology
Test Code: 11593PB-2013
CIP Code: 141001
Course Codes: 994200, 994202, 994203
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	
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: <i>1 = Recall and Reproduction, 2 = Skills and Concepts, 3 = Short-term Strategic Thinking</i>
Instructional	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: <i>(Unit Instructional Hours / Total Instructional Hours) * Total Active Items</i>
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: <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.



Assessment: Energy Technology					
Test Code:	11593PB-2013				
CIP Code:	141001				
Total Hours:	201	DOK Level(s)			Instructional Hours
Unit 9: Importance of Alternative Energy		1	2	3	25
1. Discuss the value of alternative energy.					
Unit 10: Biomass and Biofuel		1	2		25
1. Investigate the viability of biomass and biofuel.					
Unit 11: Nuclear Power		1	2		25
1. Investigate the use of nuclear power.					
Unit 12: Solar Power		1	2	3	25
1. Investigate the viability of solar power.					
Unit 13: Wind Power		1	2	3	25
1. Investigate the viability of wind energy.					
Unit 14: Generation System		1	2		15
1. Understand generation system overview.					
Unit 15: Equipment Operation, Manitenance, and Repair		1	2	3	25
1. Apply equipment operation, maintenance, and repair.					
Unit 16: Quality Operations		1	2	3	20
1. Demonstrate the ability to design, analyze, and effectively use systems, components, and methods with a framework of quality and continuous improvement.					
Unit 17: Diagnostics and Production Processes		1	2	3	8
1. Diagnose and correct abnormalities and malfunctions in equipment and production processes.					
Unit 18: Health, Safety, and Environmental Management		1	2		8
1. Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.					