



MS-CPAS Blueprint Summary

Assessment: Electronics and Related Engineering Technology
Test Code: 21338Y0-2011
CIP Code: 150303
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:

Term and Definition	
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> 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: <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-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.



Electronics and Related Engineering							
Assessment:	Technology						
Test Code:	21338Y0-2011						
CIP Code:	150303						
Total Hours:	15	DOK Level(s)		Instructional Hours		Total Items	
EET 1114: DC Circuits					4	22	
1. Demonstrate and practice general safety procedures in the school and work-site environments. 2. Demonstrate and apply an understanding of a basic electrical circuit. 3. Demonstrate an understanding of voltage, current, resistance, and power and how they relate. 4. Analyze and evaluate the parameters of a series circuit. 5. Analyze and evaluate the parameters of a parallel circuit. 6. Analyze and evaluate the parameters of a series-parallel circuit. 7. Apply network theorems to the analysis of complex circuits. 8. Explain capacitance, and demonstrate its application in DC and transient circuits. 9. Explain inductance, and demonstrate its application in DC and transient circuits.							
EET 1123: AC Circuits					3	16	
1. Analyze a sine wave, and explain its characteristics and application to AC circuits. 2. Analyze inductive and capacitive reactance in series and parallel circuits. 3. Analyze transformer voltage, current, impedance transformations, and applications. 4. Explain RLC non-resonant and resonant circuits. 5. Explain and classify filters.							
EET 1214: Digital Electronics					4	21	
1. Perform mathematical operations in digital number systems. 2. Classify logic gates, and explain their functions. 3. Analyze logic circuits. 4. Minimize logic circuits using Boolean algebra and Karnaugh mapping. 5. Analyze principles and operations of digital display devices. 6. Explain the operation of basic memory circuits.							
EET 1334: Solid State Devices and Circuits					4	21	
1. Explain the characteristics of semiconductor materials and theory of operation of PN junctions. 2. Explain semiconductor diode theory and apply to diode circuits. 3. Analyze the operation of semiconductor special purpose diodes. 4. Analyze the operation of bipolar junction transistors. 5. Explain and analyze the construction of BJT amplifiers. 6. Analyze the operation of field effect transistors, and demonstrate their applications. 7. Analyze the operation of thyristors, and demonstrate their applications.							
						Active Items	80
						Field-Test Items	20
						TOTAL ASSESSED ITEMS	100