

Blueprint for Instruction and Assessment

Automation and Robotics

14.4201.00



Domain	Related Standards	Instructional Time
Domain 1 Mechanical Properties	STANDARD 2.0 PERFORM ELECTRICAL AND ELECTRONIC TASKS STANDARD 3.0 ANALYZE HYDRAULIC AND PNEUMATIC SYSTEMS STANDARD 5.0 DESCRIBE THE OPERATION AND USE OF VARIOUS FORMS OR ELECTRICAL MOTORS STANDARD 6.0 PERFORM MECHANICAL SYSTEMS LINKAGES TASKS	40-50%
Domain 2 Automation and Programming	STANDARD 4.0 ANALYZE PROGRAMMABLE LOGIC CONTROLLER (PLC) SYSTEMS STANDARD 10.0 APPLY SENSOR SOLUTIONS STANDARD 13.0 DEMONSTRATE SAFE AND PROPER USE OF ELECTRONIC AND OTHER LABORATORY EQUIPMENT, TOOLS, AND MATERIALS	25-30%
Domain 3 Industrial Applications	STANDARD 7.0 PERFORM DRAFTING TASKS STANDARD 8.0 IDENTIFY INDUSTRIAL ROBOT TYPES AND THE TASKS THEY PERFORM STANDARD 9.0 EXAMINE DATA COMMUNICATION METHODOLOGIES STANDARD 11.0 DESCRIBE COMMON MANUFACTURING PROCESSES IN AUTOMATION	25-30%
Domain 4 Innovation	STANDARD 1.0 EXAMINE THE IMPACT OF NEW TECHNOLOGIES ON AUTOMATION AND ROBOTICS STANDARD 12.0 DEVELOP ROBOTICS APPLICATION SYSTEMS	5-10%

Content domains are bodies of knowledge, skills, or abilities to be taught and assessed. They illustrate the relationship among technical standards, instructional time, and student success on the Technical Skills Assessment. This blueprint corresponds with the technical standards endorsed on January 27, 2021.

