



Construction Technology 2018-19 State Results

Statistics data includes students taking exams in the original testing period and includes students retaking exams. The Score Distribution and Standards performance tables show results for original testing period only for accurate evaluation of live testing performance.

Statistics

Categories	Performance
Participants	171
Pass Rate	122
Pass Percentage	71.3%
Average Score	70.3
Cut Score	67

Score Distribution

% Range	# Scores in Range
0-17	0
17-27	0
27-37	2
37-47	1
47-57	12
57-67	44
67-77	56
77-87	40
87-97	4
97-100	0

Construction Technology

1) Content Standard 1.0: Identify Lab Organization and Safety Procedures	85.31%
1) Performance Standard 1.1: Demonstrate General Lab Safety Rules and Procedures	91.19%
1) 1.1.1 Describe general shop safety rules and procedures	86.16%
2) 1.1.2 Demonstrate knowledge of OSHA and its role in workplace safety	95.6%
3) 1.1.3 Comply with the required use of personal protective equipment (PPE) during lab/shop activities	96.23%
4) 1.1.4 Utilize safe procedures for handling of tools and equipment	98.11%
5) 1.1.5 Operate lab equipment according to safety guidelines	93.4%
6) 1.1.6 Identify and use proper lifting procedures and proper use of support equipment	96.23%
8) 1.1.8 Identify marked safety areas	89.62%
9) 1.1.9 Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment	77.36%
11) 1.1.11 Identify the location of the posted evacuation routes	92.45%
2) Performance Standard 1.2: Identify and Utilize Hand Tools	88.99%
1) 1.2.1 Identify hand tools and their appropriate usage	88.99%
3) Performance Standard 1.3: Identify and Utilize Power Tools and Equipment	75.55%
1) 1.3.1 Identify power tools and their appropriate usage	82.6%
2) 1.3.2 Identify equipment and their appropriate usage	37.11%
3) 1.3.3 Demonstrate the proper techniques when using power tools and equipment	81.76%
4) 1.3.4 Demonstrate safe handling and use of appropriate power tools and equipment	79.25%
2) Content Standard 2.0: Perform General Construction Skills	77.18%
1) Performance Standard 2.1: Demonstrate Print Reading Practices	87.11%
1) 2.1.1 Identify and explain basic construction drawing terms, components, and symbols	77.99%
2) 2.1.2 Relate information on the construction drawings	94.97%
4) 2.1.4 Interpret and utilize dimensions	97.48%
2) Performance Standard 2.2: Apply Math Skills to Construction Applications	74.91%
1) 2.2.1 Add, subtract, multiply, and divide whole numbers, with and without a calculator	71.7%

2) 2.2.2 Use a standard ruler, a metric ruler, and a measuring tape to measure	89.62%
3) 2.2.3 Add, subtract, multiply, and divide fractions	74.53%
7) 2.2.7 Explain the various measurement systems in the construction trades	61.01%
9) 2.2.9 Utilize geometric principles used in the construction industry (e.g., distance, area, and volume)	70.75%
3) Performance Standard 2.3: Utilize Materials Handling Techniques	57.86%
4) 2.3.4 Utilize proper materials-handling techniques	57.86%
3) Content Standard 3.0: Apply Site Layout Practices	80.5%
1) Performance Standard 3.1: Perform Site Layout Techniques	80.5%
1) 3.1.1 Describe the major responsibilities related to site layout	96.23%
7) 3.1.7 Check and/or establish 90-degree angles using the 3-4-5 rule	64.78%
4) Content Standard 4.0: Understand the Properties and Utilization of Concrete and Masonry Systems	65.72%
1) Performance Standard 4.1: Identify Concrete, Reinforcing Materials, and Forming Applications	66.67%
3) 4.1.3 Calculate the volume of concrete needed to complete a task	34.59%
4) 4.1.4 Identify and describe the types of concrete reinforcement materials	89.31%
5) 4.1.5 Identify various types of footings and foundations and their applications	63.52%
8) 4.1.8 Erect, plumb, and brace a simple concrete form with reinforcement	79.25%
2) Performance Standard 4.2: Apply Concrete Handling and Placing Techniques	65.41%
2) 4.2.2 Describe the factors for quality concrete placement	65.41%
3) Performance Standard 4.3: Explore the Masonry Industry	54.09%
3) 4.3.3 State the safety precautions that must be practiced at a work site	54.09%
4) Performance Standard 4.4: Apply Advanced Masonry Installation Techniques	69.81%
2) 4.4.2 Describe the different types of masonry bonds	61.64%
7) 4.4.7 Lay masonry units in a true course (i.e., plumb, level, straight)	77.99%
5) Content Standard 5.0: Understand and Utilize Framing Systems	59.24%
1) Performance Standard 5.1: Identify and Install Floor Systems	53.93%
2) 5.1.2 Read and interpret drawings and specifications to determine floor system requirements	25.79%
3) 5.1.3 Identify floor and sill framing and support members	59.59%
8) 5.1.8 Analyze different types of flooring framing materials	47.8%
12) 5.1.12 Lay out and construct a floor assembly	59.75%

2) Performance Standard 5.2: Identify and Install Wall and Ceiling Systems	69.63%
1) 5.2.1 Identify the components of a wall and ceiling layout	88.36%
2) 5.2.2 Describe the procedure for laying out a wall	62.26%
3) 5.2.3 Describe the correct procedure for assembling and erecting an exterior wall	62.26%
4) 5.2.4 Identify the common materials and methods used for installing sheathing	42.77%
5) 5.2.5 Lay out, assemble, erect, and brace exterior walls	87.42%
9) 5.2.9 Cut and install ceiling joists on a wood frame building	55.97%
3) Performance Standard 5.3: Identify and Install Roof Systems	56.39%
1) 5.3.1 Define the terms associated with roof framing	80.5%
2) 5.3.2 Identify the roof framing members used in common roof systems	72.64%
3) 5.3.3 Compare the methods used to layout and calculate the length of a rafter	47.17%
5) 5.3.5 Use a rafter framing square, speed square, and calculator in laying out a roof	38.99%
7) 5.3.7 Erect a common roof system	46.54%
8) 5.3.8 Frame a roof opening (e.g., vents, dormers, skylights, etc.)	55.35%
9) 5.3.9 Estimate the materials used in framing and sheathing a roof	54.72%
4) Performance Standard 5.4: Identify and Install Basic Stair Systems	56.92%
5) 5.4.5 Calculate the rise and run for a common stair system (i.e., treads, risers, stringer)	67.92%
8) 5.4.8 Utilize the proper health and safety procedures when working with stair layouts	45.91%
6) Content Standard 6.0: Utilize Exterior Finish Applications	59.75%
1) Performance Standard 6.1: Demonstrate Roofing Applications	81.76%
5) 6.1.5 Install main and hip ridge caps	81.76%
2) Performance Standard 6.2: Demonstrate Exterior Finishing Applications	52.41%
2) 6.2.2 Describe the types and purposes of wall insulation, thermal barriers, and flashing	59.12%
3) 6.2.3 Identify common cornices types	49.06%
7) Content Standard 7.0: Apply Electrical Principles	61.25%
1) Performance Standard 7.1: Identify Electrical Safety Procedures	53.14%
3) 7.1.3 Identify electrical hazards and how to avoid or minimize them in the	

workplace	58.49%
4) 7.1.4 Explain electrical safety issues concerning lockout/tagout procedures, confined space entry, respiratory protection, and fall protection systems	47.8%
2) Performance Standard 7.2: Identify Fundamental Electrical Systems	62.72%
1) 7.2.1 Explain the role of the National Electrical Code in residential wiring and describe how to determine electric service requirements	53.46%
4) 7.2.4 Select the proper wiring methods for various types of residential construction systems	59.43%
6) 7.2.6 Discuss the types and purposes of equipment grounding conductors	71.07%
7) 7.2.7 Explain the purpose and appropriate usage of ground fault circuit interrupters	67.92%
11) 7.2.11 Explain how wiring devices are selected and installed	65.09%
12) 7.2.12 Describe the installation and control of lighting fixtures	72.96%
13) 7.2.13 Install a basic electrical system	45.28%
8) Content Standard 8.0: Apply Plumbing Principles	65.41%
1) Performance Standard 8.1: Identify Drain, Waste, and Vent (DWV) Systems	66.51%
1) 8.1.1 Explain how waste moves from a fixture through the drain system to the environment	60.38%
2) 8.1.2 Identify the major components of a drainage system and describe their functions	81.76%
3) 8.1.3 Investigate the different types of traps, usages, and applications	54.09%
4) 8.1.4 Identify the various types of drain, waste, and vent (DWV) fittings and their applications	69.81%
2) Performance Standard 8.2: Identify and Utilize Plastic Pipe and Fittings	49.06%
6) 8.2.6 Explain proper procedures for the handling, storage, and protection of plastic pipes	61.01%
7) 8.2.7 Properly measure, cut, and join plastic piping (e.g., connectors, glues, solvents)	37.11%
3) Performance Standard 8.3: Identify and Utilize Copper Pipe and Fittings	71.07%
3) 8.3.3 Identify the types of fittings and valves used with copper piping	74.21%
5) 8.3.5 Properly measure, ream, cut, and join copper piping	66.67%
6) 8.3.6 Install a basic copper piping system	71.7%
7) 8.3.7 Identify the hazards and safety precautions associated with copper piping	71.38%