



## Aviation 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	63
Pass Rate	54
Pass Percentage	85.7%
Average Score	75.8
Cut Score	64

### Score Distribution

% Range	# Scores in Range
0-14	0
14-24	0
24-34	0
34-44	1
44-54	1
54-64	7
64-74	14
74-84	27
84-94	13
94-100	0

## Aviation Technology (Pilot)

### 1) CONTENT STANDARD 1.0: IDENTIFY LAB ORGANIZATION AND SAFETY PROCEDURES



#### 1) PERFORMANCE STANDARD 1.1: DEMONSTRATE GENERAL LAB SAFETY RULES AND PROCEDURES



3) 1.1.3 Comply with the required use of personal protective equipment (PPE) during lab/shop activities



4) 1.1.4 Utilize safe procedures for handling of tools and equipment



6) 1.1.6 Identify and use proper lifting procedures and proper use of support equipment



8) 1.1.8 Identify marked safety areas



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



10) 1.1.10 Identify the location and use of eye wash stations



11) 1.1.11 Identify the location of the posted evacuation routes



12) 1.1.12 Identify and wear appropriate clothing for lab/shop activities



14) 1.1.14 Demonstrate knowledge of the safety aspects of high voltage circuits



15) 1.1.15 Locate and interpret safety data sheets (SDS)



17) 1.1.17 Perform housekeeping duties



#### 2) PERFORMANCE STANDARD 1.2: IDENTIFY AND UTILIZE HAND TOOLS



2) 1.2.2 Identify standard and metric designation



#### 3) PERFORMANCE STANDARD 1.3: IDENTIFY AND UTILIZE POWER TOOLS AND EQUIPMENT



2) 1.3.2 Identify equipment and their appropriate usage



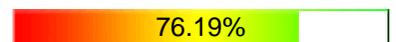
### 2) CONTENT STANDARD 2.0: ASSESS THE IMPACT OF AVIATION ON SOCIETY



#### 1) PERFORMANCE STANDARD 2.1: DESCRIBE HISTORY OF AVIATION



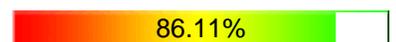
1) 2.1.1 Define aviation



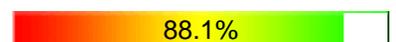
2) 2.1.2 Identify aviation achievements throughout history



#### 3) PERFORMANCE STANDARD 2.3: ANALYZE ETHICS IN AVIATION



2) 2.3.2 Analyze ethical aviation issues



3) 2.3.3 Analyze and explain ethical and technical issues contributing to an aviation disaster



### 3) CONTENT STANDARD 3.0: ANALYZE THE AVIATION CERTIFICATION PROCESSES



1) PERFORMANCE STANDARD 3.1: RESEARCH CERTIFICATION AND REGULATIONS	66.14%
1) 3.1.1 Identify pilot medical certificate types and durations	64.29%
3) 3.1.3 Explain the general eligibility requirements for a airmen certifications	55.56%
8) 3.1.8 Explain pilot in command	96.83%
9) 3.1.9 Explain private pilot privileges, flight review and currency requirements	60.32%
4) CONTENT STANDARD 4.0: ANALYZE AIRCRAFT SYSTEMS	75.6%
1) PERFORMANCE STANDARD 4.1: IDENTIFY AIRCRAFT ENGINE TYPES	73.02%
2) 4.1.2 Explain the operation of a reciprocating engine	73.02%
2) PERFORMANCE STANDARD 4.2: RESEARCH RECIPROCATING ENGINE SYSTEMS	69.84%
2) 4.2.2 Analyze the causes of carburetor ice and its effects on engine performance	76.19%
7) 4.2.7 Describe the purpose of changing the mixture with altitude	63.49%
3) PERFORMANCE STANDARD 4.3: EXPLORE AIRCRAFT PROPELLER SYSTEMS	71.43%
4) 4.3.4 Explain the proper operation of a constant speed propeller equipped airplane	71.43%
4) PERFORMANCE STANDARD 4.4: ANALYZE AIRCRAFT SYSTEMS	80.42%
1) 4.4.1 Identify the types of fuel used in aviation	90.48%
5) 4.4.5 Analyze the instruments associated with the Pitot-Static system	85.71%
11) 4.4.11 Interpret readings on the altimeter	66.67%
13) 4.4.13 Explain the primary and secondary flight controls	82.14%
5) PERFORMANCE STANDARD 4.5: EXAMINE ELECTRICAL, HYDRAULIC AND PNEUMATIC SYSTEMS	67.2%
2) 4.5.2 Explain the purpose for circuit breakers and fuses	88.89%
8) 4.5.8 Explain pneumatic principles	23.81%
5) CONTENT STANDARD 5.0: INVESTIGATE MATERIAL PROPERTIES	78.12%
1) PERFORMANCE STANDARD 5.1: ANALYZE AIRCRAFT STRUCTURES	76.19%
1) 5.1.1 Identify the major components of an aircraft	73.02%
6) 5.1.6 Calculate wing area and aspect ratio	75.4%
8) 5.1.8 Analyze weight and balance principals	73.02%
12) 5.1.12 Explain emergencies associated with exceeding center of gravity limitations	93.65%

2) PERFORMANCE STANDARD 5.2: DEMONSTRATE MEASURING AND SCALING TECHNIQUES FOR AVIATION	80.69%
1) 5.2.1 Identify industry standard units of measure	95.24%
2) 5.2.2 Convert between industry standard units of measure	66.67%
4) 5.2.4 Calculate time, speed, and distance	78.84%
5) 5.2.5 Calculate fuel consumption, navigation, and wind components	85.71%
6) CONTENT STANDARD 6.0: ANALYZE AIRCRAFT WEATHER	71.63%
1) PERFORMANCE STANDARD 6.1: ANALYZE WEATHER AND WEATHER SERVICES	71.63%
1) 6.1.1 Explain the weather services available to pilots	68.25%
7) 6.1.7 Analyze the hazards associated with severe weather	84.13%
8) 6.1.8 Explain basic Visual Flight Rules (VFR) weather minimums	68.25%
10) 6.1.10 Explain the effects of icing on an airplane	63.49%
7) CONTENT STANDARD 7.0: ANALYZE FLIGHT NAVIGATION AND PHYSIOLOGICAL	69.11%
1) PERFORMANCE STANDARD 7.1: INVESTIGATE FLIGHT NAVIGATION REQUIREMENTS	59.05%
2) 7.1.2 Describe pilotage and dead reckoning	42.86%
4) 7.1.4 Complete navigation logs and flight plan forms	73.02%
5) 7.1.5 Explain east/west visual flight rules (VFR) cruising altitudes	39.68%
6) 7.1.6 Interpret fuel requirements for VFR flights	100%
2) PERFORMANCE STANDARD 7.2: APPLY THE PRINCIPALS OF FLIGHT PLANNING AND NAVIGATION	80.16%
2) 7.2.2 Interpret navigation aids on an aeronautical chart/map	69.84%
3) 7.2.3 Describe the purpose and functions of the air traffic control (ATC) system	80.95%
5) 7.2.5 Interpret an indication shown on a navigation instrument	88.89%
3) PERFORMANCE STANDARD 7.3: IDENTIFY FLIGHT PHYSIOLOGY FACTORS	70.63%
1) 7.3.1 Analyze visual scanning for traffic during flight operations	39.68%
4) 7.3.4 Explain hypoxia and carbon monoxide causes, symptoms, and corrective actions	84.13%
6) 7.3.6 Describe the steps involved in the aeronautical decision making process	74.6%
8) CONTENT STANDARD 8.0: INTERPRET THE PHYSICS AND AERODYNAMICS OF FLIGHT	79.71%

1) PERFORMANCE STANDARD 8.1: ANALYZE THE PHYSICS OF FLIGHT	83.9%
1) 8.1.1 Identify the three axes and the four major forces which act on an aircraft	92.86%
3) 8.1.3 Describe the ways that lift is generated by an airfoil and the factors that impact lift and drag	79.37%
5) 8.1.5 Describe the relationship of altitude, temperature, and pressure within the Earth's atmosphere	85.71%
7) 8.1.7 Differentiate the four forces of flight	78.84%
2) PERFORMANCE STANDARD 8.2: ANALYZE AERODYNAMICS OF FLIGHT	75.51%
4) 8.2.4 Describe angle of attack and critical angle of attack	87.3%
5) 8.2.5 Compare and contrast the two types of drag	61.9%
6) 8.2.6 Explain ground effect	84.13%
9) 8.2.9 Identify the cause of an aircraft stall and spin	60.32%
10) 8.2.10 Explain corrective actions for stalls and spins	88.89%
13) 8.2.13 Describe the forces that allow turning flight	58.73%
9) CONTENT STANDARD 9.0: ANALYZE THE FLIGHT ENVIRONMENT	67.72%
1) PERFORMANCE STANDARD 9.1: IDENTIFY AND EXPLAIN THE AIRPORT ENVIRONMENT	50.79%
1) 9.1.1 Identify the difference between controlled and uncontrolled airports	57.14%
7) 9.1.7 Explain airplane taxiing operations in wind	38.1%
2) PERFORMANCE STANDARD 9.2: ANALYZE AERONAUTICAL CHARTS	75.13%
3) 9.2.3 Identify and describe airport symbols and markings on an aeronautical chart	84.13%
5) 9.2.5 Identify charted symbols	69.84%
6) 9.2.6 Identify airspace markings on charts	71.43%
3) PERFORMANCE STANDARD 9.3: ANALYZE AIRSPACE AND COMMUNICATION PROCEDURES	77.25%
1) 9.3.1 Identify the classes of airspace	73.02%
7) 9.3.7 Describe transponder operation and common codes	71.43%
8) 9.3.8 Articulate the phonetic alphabet	87.3%