2024-2025
Technical Skills Assessment
Programming and Software Development

IDAHO Division of Career Technical Education

Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Programming and Software Development Number tested: 106	% Correct 21-22	% Correct 22-23	% Correct 23-24	% Correct 24-25
CONTENT STANDARD 1.0:Demonstrate critical thinking and problem-solving skills as they apply to programming.	68.92%	69.11%	68.92%	71.74%
1.1 Apply basic programming principles.	67.72%	69.01%	68.70%	65.86%
1.4 Write a program that produces output.	51.32%	54.58%	56.94%	59.05%
1.5 Select identifiers to use within programs.	87.72%	85.92%	93.52%	95.69%
1.7 Write and run a program.	83.33%	79.58%	75.00%	85.78%
CONTENT STANDARD 2.0:Demonstrate ability to use variables, data types, and string manipulation to solve computer problems programmatically.	79.56%	79.44%	80.14%	82.46%
2.1 Demonstrate the process of declaring variables.	63.74%	64.79%	66.20%	68.25%
2.2 Display variable values.	73.68%	71.83%	72.22%	73.71%
2.3 Apply integral data types.	84.21%	89.44%	85.19%	88.36%
2.5 Apply arithmetic operators.	92.98%	93.66%	93.98%	95.91%
2.6 Apply boolean data type.	91.81%	89.67%	94.44%	95.98%
2.9 Apply string data type.	81.87%	77.93%	77.16%	81.32%
CONTENT STANDARD 3.0:Demonstrate effective use of selection structures to add logic to programs.	67.21%	68.80%	67.45%	70.16%
3.1 Demonstrate logic-planning tools and decision-making.	57.89%	56.34%	50.00%	70.69%
3.2 Make decision using the if statement.	78.36%	83.10%	79.01%	75.57%
3.3 Make decisions using the if-else statement.	61.40%	64.08%	59.72%	62.93%
3.4 Apply compound expressions in if statements.	68.42%	71.83%	69.44%	70.69%
3.5 Make decisions using the switch statement.	63.16%	64.79%	66.67%	62.93%
3.6 Apply the conditional operator.	60.53%	65.49%	71.30%	71.98%
3.7 Apply the NOT operator.	69.30%	68.31%	66.20%	72.41%
3.8 Describe how to avoid common errors when making decisions, and apply problem-solving skills in context.	66.67%	56.34%	59.26%	66.38%

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CONTENT STANDARD 4.0:Demonstrate ability to test, debug and validate programming applications.	70.97%	68.25%	70.96%	76.49%
4.1 Locate a logic error by stepping through the code.	71.93%	71.83%	70.37%	69.54%
4.2 Locate logic errors using breakpoints.	70.76%	67.61%	70.99%	79.89%
4.3 Fix syntax and logic errors.	70.53%	66.48%	71.30%	78.62%
CONTENT STANDARD 5.0:Differentiate between the various types of repetition structures and use each repetition structure appropriately in program development.	66.80%	62.30%	64.39%	64.66%
5.1 Apply the loop structure.	74.85%	73.24%	73.15%	69.54%
5.2 Create loops using the while statement.	61.40%	60.28%	59.81%	61.21%
5.3 Create loops using the for statement.	66.23%	59.86%	63.89%	66.38%
5.5 Apply nested loops.	71.93%	49.30%	62.96%	60.34%
CONTENT STANDARD 6.0 Use methods to increase functionality and to modularize programs	83.63%	81.92%	85.80%	87.21%
6.5 Write a method that returns a value.	84.21%	85.63%	87.41%	88.10%
6.6 Pass an array to a method.	80.70%	63.38%	77.78%	82.76%
CONTENT STANDARD 7.0:Demonstrate understanding of arrays and structure and apply concepts in program development.	72.81%	71.83%	73.73%	75.65%
7.1 Declare an array and assign values to array elements.	83.33%	80.28%	84.26%	85.34%
7.2 Access array elements.	75.09%	76.90%	75.93%	78.79%
7.3 Search an array using a loop.	40.35%	29.58%	41.67%	40.52%
CONTENT STANDARD 8.0:Demonstrate understanding of object-oriented programming concepts.	70.18%	67.61%	65.19%	70.43%
8.1 Describe and apply class concepts.	68.42%	68.31%	66.44%	70.69%
8.2 Create classes from which objects can be instantiated.	67.98%	65.85%	62.73%	68.75%
8.3 Create objects.	78.07%	69.72%	67.59%	73.28%
1CONTENT STANDARD 11.0:Apply concepts and principles of systems planning and development.	60.53%	55.63%	52.31%	62.93%
11.3 Explain reuse and its role in software development.	60.53%	55.63%	52.31%	62.93%
1CONTENT STANDARD 13.0:Demonstrate knowledge of application design principles.	49.12%	40.49%	42.59%	46.77%
13.3 Concisely define each of the following key database design terms: relation, primary key, functional dependency, foreign key, referential integrity, field, data type, null value, denormalization, file organization, index, and secondary key.	49.12%	40.49%	42.59%	46.77%