



2024-2025

Technical Skills Assessment

Food Science and Processing Technology

Results by Standard

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

Assessment: Food Science and Processing Technology

Number tested: 5

| | % Correct 21-22 | % Correct 22- 23 | % Correct 23-24 | % Correct 23-25 |
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| Program 1: CONTENT STANDARD 1.0: FOOD INDUSTRY AND HISTORICAL DEVELOPMENT | 48.00% | 61.03% | 58.52% | 68.00% |
| Duty 1: Performance Standard 1.1: Evaluate the Significance and Implications of Changes and Trends in the Food Products and Processing Industry | 52.00% | 57.69% | 56.67% | 76.00% |
| Standard 3: 1.1.3 Identify consumer concerns related to food quality and safety (such as allergens, antibiotic use, genetically modified organisms (GMOs), pesticide use, and food borne illnesses). | 50.00% | 53.85% | 70.37% | 86.67% |
| Standard 4: 1.1.4 Discuss the economic implications when low-quality and unsafe foods enter the market. | 63.33% | 64.10% | 51.85% | 73.33% |
| Standard 8: 1.1.8 Identify and explain environmental and safety concerns about the food supply. | 45.00% | 55.77% | 50.00% | 70.00% |
| Duty 2: Performance Standard 1.2: Investigate Industry Organizations, Groups, and Regulatory Agencies Affecting the Food Products and Processing Industry | 40.00% | 67.69% | 62.22% | 52.00% |
| Standard 1: 1.2.1 Explain the purposes of organizations that are part of and/or regulate the food products and processing industry. | 40.00% | 53.85% | 61.11% | 50.00% |
| Standard 2: 1.2.2 Determine the relationship between regulatory agencies (i.e., FDA, USDA, CDC, WHO) and the food products and processing industry. | 40.00% | 76.92% | 62.96% | 53.33% |
| Program 2: CONTENT STANDARD 2.0: FOOD SAFETY AND SANITATION | 61.63% | 69.70% | 69.61% | 73.06% |
| Duty 1: Performance Standard 2.1: Create Sanitation Standard Operating Procedures and Master Sanitation Schedules | 56.67% | 65.81% | 62.96% | 68.89% |
| Standard 1: 2.1.1 Create Sanitation Standard Operating Procedures (SSOP) for a food processing company. | 36.67% | 53.85% | 55.56% | 53.33% |
| Standard 2: 2.1.2 Understand Good Manufacturing Practices (GMP) and how they relate to a food processing company and employee and equipment hygiene. | 73.33% | 79.49% | 70.37% | 93.33% |
| Standard 3: 2.1.3 Create Master Sanitation Schedule (MSS) for a food processing company. | 60.00% | 64.10% | 62.96% | 60.00% |
| Duty 2: Performance Standard 2.2: Create a Food Safety Plan, Understand the Biological, Chemical, and Physical Hazards Associated with Food Processing and Handling | 69.05% | 63.00% | 70.90% | 80.95% |
| Standard 1: 2.2.1 Understand and evaluate the different biological hazards (prions, bacteria, viruses, protozoans, etc.) that could be present in the raw ingredient through processing and distribution of a food product. | 60.00% | 51.92% | 80.56% | 95.00% |
| Standard 2: 2.2.2 Understand and evaluate the different chemical hazards (pesticides, herbicides, allergens, paints, heavy metals, dioxins, PCBs, etc.) that could be present in the raw ingredient through processing and distribution of a food product. | 66.67% | 71.79% | 48.15% | 73.33% |
| Standard 3: 2.2.3 Understand and evaluate the different physical hazards (metal, plastic, rubber, etc.) that could be present in the raw ingredient through processing and distribution of a food product. | 86.67% | 69.23% | 70.37% | 100.00% |
| Standard 4: 2.2.4 Identify potential sources of contamination. | 67.50% | 53.85% | 66.67% | 65.00% |

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| Standard 5: 2.2.5 Develop strategies to eliminate or reduce contamination to an acceptable level. | 73.33% | 79.49% | 92.59% | 93.33% |
| Standard 6: 2.2.6 Discuss current regulatory food safety programs, including HACCP (Hazard Analysis Critical Control Point), FSP (Food Safety Plan), and Food Defense. | 65.00% | 59.62% | 66.67% | 65.00% |
| Duty 3: Performance Standard 2.3: Apply Sanitation Procedures in the Handling, Processing, and Storing of Food Products | 55.79% | 78.95% | 71.35% | 66.32% |
| Standard 1: 2.3.1 Evaluate food product handling procedures. | 57.50% | 61.54% | 55.56% | 65.00% |
| Standard 2: 2.3.2 Explain the importance of microbiological tests (e.g., ATP, equipment swabs, Environmental swab, Pathogen Environmental Monitoring -PEM) in food sanitation verification. | 40.00% | 74.36% | 62.96% | 66.67% |
| Standard 3: 2.3.3 Explain the importance of allergen cross-contact and how sanitation affects allergen management. | 65.00% | 90.38% | 83.33% | 65.00% |
| Standard 4: 2.3.4 Discuss documentation procedures and their importance in a food processing and distribution system. | 65.00% | 88.46% | 77.78% | 60.00% |
| Standard 5: 2.3.5 Understand how Clean in Place (CIP) and Clean Out of Place (COP) affects overall sanitation of a facility. | 53.33% | 89.74% | 77.78% | 80.00% |
| Standard 6: 2.3.6 Understand the use of chemical types and applications and how it affects plant sanitation procedures. | 53.33% | 74.36% | 74.07% | 60.00% |
| Program 3: CONTENT STANDARD 3.0: PERSONAL SAFETY | 51.82% | 63.64% | 70.71% | 81.82% |
| Duty 1: Performance Standard 3.1: Understand Worker Safety Principles in a Manufacturing Facility | 51.82% | 63.64% | 70.71% | 81.82% |
| Standard 1: 3.1.1 Outline guidelines for personnel safety in the food products and processing industry (e.g., lockout-tagout, personal protective equipment, permit required confined space, machine guarding, walking working surfaces, motorized vehicles). | 37.50% | 44.23% | 61.11% | 70.00% |
| Standard 2: 3.1.2 Perform a safety risk analysis of a manufacturing facility, including behavior based accident preventions. | 70.00% | 69.23% | 77.78% | 93.33% |
| Standard 4: 3.1.4 Demonstrate the ability to follow safety and operational procedures in a lab setting and satisfactorily complete a safety test. | 52.50% | 78.85% | 75.00% | 85.00% |
| Program 4: CONTENT STANDARD 4.0: THE SCIENCE OF FOOD PRODUCTS | 61.67% | 55.13% | 59.26% | 66.67% |
| Duty 2: Performance Standard 4.2: Evaluate, Grade, and Classify Processed Food Products | 76.67% | 53.85% | 62.96% | 66.67% |
| Standard 5: 4.2.5 Interpret and evaluate results of quality assurance tests on food products and examine steps to implement corrective procedures. | 76.67% | 53.85% | 62.96% | 66.67% |
| Duty 3: Performance Standard 4.3: Understand the Constituents of Food (e.g., Lipids, Proteins, Carbohydrates, Water, Vitamins, Minerals) | 50.00% | 69.23% | 55.56% | 60.00% |
| Standard 2: 4.3.2 Compare and contrast food constituents and their relative value to product taste, appearance, and so forth. | 50.00% | 69.23% | 55.56% | 60.00% |
| Duty 4: Performance Standard 4.4: Understand and Recognize the Different Additives in Food and Purposes of Use in Processing | 45.00% | 50.00% | 55.56% | 70.00% |
| Standard 2: 4.4.2 Describe the purpose of common food additives (CFA). | 80.00% | 92.31% | 88.89% | 100.00% |
| Standard 3: 4.4.3 Describe how CFAs influence the chemistry of food. | 10.00% | 7.69% | 22.22% | 40.00% |
| Program 5: CONTENT STANDARD 5.0: FOOD PROCESSING OPERATIONS AND TECHNOLOGY | 58.75% | 73.08% | 61.11% | 65.00% |
| Duty 1: Performance Standard 5.1: Process Food and Food Products for Sale and Distribution | 45.00% | 69.23% | 66.67% | 65.00% |
| Standard 1: 5.1.1 Understand principles of raw material/ingredient receiving. | 50.00% | 53.85% | 50.00% | 70.00% |
| Standard 2: 5.1.2 Create a flow diagram for food production process steps. | 40.00% | 84.62% | 83.33% | 60.00% |
| Duty 2: Performance Standard 5.2: Preserve Food and Food Products for Sale and Distribution | 72.50% | 76.92% | 55.56% | 65.00% |
| Standard 1: 5.2.1 Describe factors related to food preservation. | 80.00% | 89.74% | 66.67% | 73.33% |

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| Standard 3: 5.2.3 Preserve foods using various methods and techniques. | 50.00% | 38.46% | 22.22% | 40.00% |
| Program 6: CONTENT STANDARD 6.0: EXPLORE CAREER OPPORTUNITIES | 68.33% | 71.79% | 72.22% | 80.00% |
| Duty 1: Performance Standard 6.1: Understand Employment Fields in the Food Science Technology Industry | 68.33% | 71.79% | 72.22% | 80.00% |
| Standard 1: 6.1.1 Identify potential careers in the food science and processing industry. | 56.67% | 64.10% | 66.67% | 73.33% |
| Standard 3: 6.1.3 Demonstrate employability skills for a career in the food science and processing industry (e.g., create a resume and cover letter, participate in job interviews). | 80.00% | 79.49% | 77.78% | 86.67% |
| Program 7: CONTENT STANDARD 7.0: LEADERSHIP TRAINING THROUGH AGRICULTURAL EDUCATION | 76.00% | 67.69% | 71.11% | 80.00% |
| Duty 1: Performance Standard 7.1: Recognize the Traits of Effective Leaders and Participate in Leadership Training through Involvement in FFA | 83.33% | 71.79% | 66.67% | 73.33% |
| Standard 5: 7.1.5 Participate in a speech or presentation activity. | 83.33% | 71.79% | 66.67% | 73.33% |
| Duty 2: Performance Standard 7.2: Understand the Importance of School and Community Awareness | 65.00% | 61.54% | 77.78% | 90.00% |
| Standard 1: 7.2.1 Participate in a school improvement or community development project. | 65.00% | 61.54% | 77.78% | 90.00% |