

Minnesota Dual-Training Pipeline

Competency Model for Advanced Manufacturing/Agriculture

Occupation: Quality Assurance/Food Safety Supervisor

Employer-Specific Requirements

Quality Management – understand and implement 3A Standards PMO (USDA Compliance) used in dairy industry only.

Occupation-Specific Competencies

HACCP Review/Monitoring	Coordinate Food Safety and Quality Training
Audit Mfg Practices/Facility Sanitation	Manage Customer Complaints
Maintain Quality Management System	Investigate Quality Issues
Maintain Facility Cleaning Programs	Traceability
Maintain Food Defense Plan	Understand Processing, Lab Equipment and Product
Maintain GFSI Global Food Safety Initiative Management Systems (SQF)-Safe Quality Foods	
Maintain Hazard Analysis and Risk Based Preventive Controls Plan (HARPC)	
Manage Supplier Verification Program	
Monitor Compliance of FSMA - Food Safety Modernization Act	
Maintain Recall/Crisis Plan for Facility	

Optional Degree:
Associates in Science
- Food Science Tech.

Industry-Sector Technical Competencies

Food Safety	Food Sanitation	Food Processing Microbiology	Training/Adult Learning
Documentation	Critical Thinking Theories	Food Security/Bio Security	Food Science/R&D
Quality Management	Root Cause Analysis	Management Principles	Food Law

Industry-Wide Technical Competencies

Manuf. Process Design & Development	Production Compliance	Maintenance, Installation and Repair	User and Customer Support	Quality Assurance, Continuous Improvement	Sustainable and Renewable	Health, Safety, Security and Environment
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Workplace Competencies

Business Fundamentals	Teamwork	Adaptability and Flexibility	Customer Service Focus	Planning and Organizing	Problem Solving, Decision Making	Working With Tools, Technology	Checking, Examining and Recording	Sustainable Practices
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Academic Competencies

Science	Basic Computer Skills	Basic and Technical Mathematics	Reading and Writing	Communication: Listening and Speaking	Critical & Analytic Thinking	Information Literacy
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Personal Effectiveness Competencies

Interpersonal Skills	Integrity	Professionalism	Initiative	Dependability and Reliability	Lifelong Learning
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Based on: Advanced Manufacturing Competency Model Employment and Training Administration, United States Department of Labor, April 2010.

* Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.

Quality Assurance/Food Safety Supervisor – A Quality Assurance/ Food Safety Supervisor is responsible for overseeing the quality standards of all food processed at a processing facility. The role is responsible for ensuring that all food processed is handled in a manner that makes the food product safe for consumption, meets all standards of HACCP and does not endanger the consumer eating the product or the staff handling it through processing. The Quality Assurance/ Food Safety Supervisor is also responsible for training staff on how to ensure food safety and quality as well as routinely inspecting and documenting the finds of inspection of the food product.

Industry-Sector Technical Competencies

- Food Safety - Understand theory and implementation practices of HACCP.
- Food Sanitation – Knowledge of sanitation procedures from contamination in all functions and operations of a facility
- Food Processing Microbiology– Understand the theory of microbiology related to the food processing environment.
- Training/Adult Learning - Understand how to effectively train and present material to adult learners.
- Documentation – Understand theory and principals of documentation and document control procedures.
- Critical Thinking Theories – Understand theory and principals of key critical thinking theories, such as Root Cause Analysis, and Gap Analysis.
- Food Security/Bio Security - Awareness of processes for prevention and preparedness to maximize food security against tampering, whether natural, inadvertent or intentional.
- Food Science/R & D – Understanding of food science principles and provide technical support for research and development.
- Quality Management – Understand and implement GMPPS's per BRC CFR 21 and Foreign Material Control.
- Root Cause Analysis – Knowledge of this method of problem solving used for identifying the root causes of faults or problems.
- Management Principles – Understand management theories related to management, leadership and team building.
- Food Law – Knowledge of laws surrounding food production and oversee the production facility to ensure compliance.

On-The-Job Training Competencies

- HACCP Review/Monitoring – Demonstrate understanding of Hazard Analysis Critical Control Point (HACCP) management system and ability to review associated company production practices to ensure conformance.

- Audit Manufacturing Practices/ Facility Sanitation – Ability to conduct audits on manufacturing practices and facility sanitation procedures.
- Maintain Quality Management System – Oversee data and policies related the quality management.
- Maintain Facility Cleaning Programs – Oversee all aspects of the production facility's cleaning programs.
- Maintain Food Defense Plan – review and revise Food Defense Plan based on a plants changing conditions or process changes.
- Coordinate Food Safety and Quality Training – Responsible for coordinating and, at times, conducting safety and quality training for facility employees.
- Manage Customer Complaints – As needed, field customer complaints and address quality issues.
- Investigate Quality Issues – Conduct investigations into product quality issues and manage resolution actions.
- Traceability – Ability to verify the history, location and application of components of the manufacturing process, as well as products.
- Understand Processing, Lab Equipment and Product – Demonstrate understanding of facility processing and lab equipment, as well as final products.

Employer-Specific Requirements:

Quality Management – understand and implement 3A Standards P.M.O. (USDA Compliance) used in dairy industry only.

Quality Assurance/Food Safety Supervisor Occupational Competency Training Plan

Related Instruction means an organized and systematic form of instruction designed to provide the apprentice with the knowledge of the theoretical and technical subjects related to the apprentice's trade of occupation, or industrial courses or, when of equivalent value, by correspondence, electronic media, or other forms or self-study approved by the commissioner.

	Course	Course Description	Credit/Non-Credit	Hours Spent on Competency
Food Safety				
Food Sanitation				
Food Processing Microbiology				
Training/Adult Learning				
Documentation				
Critical Thinking Theories				
Food Security/Bio Security				
Food Science/R & D				
Quality Management				
Root Cause Analysis				
Management Principles				
Food Law				

On-The-Job Training is the work experience and instruction. Training experience need not be in the exact order as listed below.

	Trainer/Instructor	Name of person responsible for verifying competency mastery	Hours spent on competency
HACCP Review/Monitoring			

Audit Manufacturing Practices/ Facility Sanitation			
Maintain Quality Management System			
Maintain Facility Cleaning Programs			
Maintain Food Defense Plan			
Coordinate Food Safety and Quality Training			
Manage Customer Complaints			
Investigate Quality Issues			
Traceability			
Understand Processing, Lab Equipment and Product			