



Food Science Credential

The earner of this badge demonstrated understanding of food science concepts including food science, components of a food label, food-borne illness, good manufacturing practices (GMP), food safety, equipment and facility cleaning, pest control, food processing, HACCP, microbiology, food fraud, GMOs, and sensory analysis. The earner of this credential has taken all online assessments and completed a final practical involving all material covered.

Earner:		Supervisor:		Date:		
Earning Criteria	The earner has watched a minimum of 1 video and taken 1 quiz over each given topic. The earner must earn 100% on all accompanying quizzes before doing the hands-on portion described here. The earner then demonstrates the ability to work safely in the lab given each skill. The earner is finally assessed using a cumulative in-person assessment demonstrating their ability to perform all techniques.					
Reviewing Criteria	The supervisor will use the provided checklist to assess the earner's techniques and food safety competence – please use the space at the bottom of the checklist and/or the comments section to provide feedback for the earner.					
Scoring Criteria	Earner must get a "Yes" in all categories to earn the badge.					
					Yes	No
Skills Assessed:						
Introduction to Food Science: Define food science; understand the chemical reactions in food science; physical properties of food and how they change; nutrient components; the future of food science industry					<input type="radio"/>	<input type="radio"/>
Components of a Food Label: Define food labeling; learn label requirements of different manufacturers; identify components of a food label; the government and food labels; nutritional health claims and regulation					<input type="radio"/>	<input type="radio"/>
Food-borne Illness: Allergens, Pathogens, Bacteria, Contamination: Define food borne illness; understand how bacteria can spoil food; identify pathogens; recognize different allergens					<input type="radio"/>	<input type="radio"/>
Good Manufacturing Practices (GMP): Define GMP and what it addresses; understand components of GMPs; auditors and their role in the food science industry; government regulations that oversee GMP					<input type="radio"/>	<input type="radio"/>
Food Safety and Defense Issues: Difference between food safety and defense; identify hazards to our food system; understand intentional and unintentional threats to the food system; employee's role in food safety					<input type="radio"/>	<input type="radio"/>
Equipment and Facility Cleaning and Inspection: Cleaning, sanitizing, and sterilizing differences; elements of cleaning and sanitation; how to establish a cleaning and sanitizing program					<input type="radio"/>	<input type="radio"/>
Pest Control: Define pests and what dangers they have for the food industry; recognize the different methods of controlling pests; Integrated Pest Management and its role in the industry					<input type="radio"/>	<input type="radio"/>
Food Processing: Why processing is essential and consumer demand; how compounds are joined during processing; methods of thermal processing; chemical compounds used in processing					<input type="radio"/>	<input type="radio"/>
Hazard Analysis and Critical Control Points (HACCP): Define a HACCP system; understand the steps of HACCP; different chemical and physical hazards					<input type="radio"/>	<input type="radio"/>

Microbiology in the Food Industry: Define food microbiology; understand fermentation; understand fermentation products; learn dairy culturing process	<input type="radio"/>	<input type="radio"/>
Food Fraud and GMO's: Steps taken in actual food analysis; examples of PCR experiment; information about controls and standards	<input type="radio"/>	<input type="radio"/>
Industry Important Videos: Real applications of food science; information about jobs in food science; every day expectations for someone in food science; industry examples of labs	<input type="radio"/>	<input type="radio"/>
Sensory Analysis: Subjective evaluation; sensory characteristics of food; olfactory and taste receptors; flavor and flavor descriptors; spider wheel test; textural parameters; moisture content; fatty acids; sensory test forms	<input type="radio"/>	<input type="radio"/>

Supervisor/Issuer: Please use the space below to provide feedback for the earner.		
<div></div>		
Recommend award of the badge: YES <input type="radio"/> NO <input type="radio"/>		
Earner Signature:	Supervisor Signature:	Issuer Signature: