

Food Science

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Basics of Food Science

- List considerations important to selecting a career in food science.
- Identify sequential steps for education and training in the food science field.
- Create a web chart showing the various career pathways of a food scientist.
- Using internet resources, identify prerequisites for studying food science at a collegiate level.

Food Microbiology

- Classify food-borne bacteria according to shape.
- Research and identify recent food-borne outbreaks in the United States.
- Create a chart with the top 12 foodborne pathogens, the foods they are associated with, their methods of transmission, and their living conditions.
- Identify how various methods of preservation, pH adjustment and water activity affect microbes in food.
- Identify food microorganisms that are beneficial to our food supply.

Food Laws and Regulations

- Identify the three major classes of contaminants in a food manufacturing and processing.
- Compare and contrast between various types of sanitizers.
- Identify various methods of pest control in a production facility.
- Using online resources, find and analyze a HARPC plan.
- Define critical limit and adulteration in food.



Food Chemistry

- Differentiate among monosaccharide, polysaccharide and oligosaccharide.
- Determine the physical and chemical properties of starches and sugars.
- Determine the physical and chemical properties of lipids.
- Define enzyme and research examples of enzymes in food processing and quality.
- Research how pH affects foods.
- Define water activity (a_w).

Food Sensory Science

- Explain the trigeminal response.
- Define sensory evaluation.
- Compare and contrast consumer-oriented tests and product-oriented tests.
- Understand the attributes of a good sensory testing area.
- Analyze sensory panelist recruitment considerations.
- Explore different measurement scales (intensity, hedonic, etc.)

Food Science, Safety and Sanitation in the Kitchen

- Identify focus areas of high risk for cross contamination.
- Identify major components of kitchen safety.
- Practice cutting skills and knife safety.
- Compare and contrast various methods of food cookery.
- Cost a recipe out by ingredient and examine its overall cost.

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