

OAC 3701-21-25

## Appendix B

### Manager Certification in Food Protection Courses of Study

1. The core content of a manager certification in food protection course of study shall incorporate the most current requirements specified under Chapter 3717-1 Ohio Administrative Code (OAC) and shall contain the following curriculum:
  - a. Microbiology and foodborne illness:
    - i. Describing the symptoms associated with foodborne illness:
      - i. Vomiting;
      - ii. Diarrhea;
      - iii. Jaundice;
      - iv. Sore throat with fever; and
      - v. Lesions on the hands or arms that contain pus.
    - ii. Describing the following pathogens that cause foodborne illness and their contributing factors, symptoms, and prevention methods:
      - i. Campylobacter;
      - ii. Cryptosporidium;
      - iii. Cyclospora;
      - iv. Entamoeba histolytica;
      - v. Shiga toxin-producing Escherichia coli;
      - vi. Giardia;
      - vii. Hepatitis A;
      - viii. Norovirus;
      - ix. Salmonella spp;
      - x. Salmonella Typhi;
      - xi. Shigella spp;
      - xii. Vibrio cholerae; and
      - xiii. Yersinia.
    - iii. Describing the requirements for food employee reporting of health information in a verifiable manner;
    - iv. Describing the requirements for establishing and removing restrictions and exclusions for food employees that report having symptoms or have been diagnosed with one of the foodborne illnesses listed above;
    - v. Identifying and describing food microbiology terms: pH, water activity, foodborne illness, foodborne outbreak, foodborne infection, foodborne intoxication, and foodborne pathogens;

- vi. Explaining the hazards involved in the consumption of raw or undercooked meat, poultry, eggs and fish; and
  - vii. Defining and recognizing time/temperature controlled for safety (TCS) food.
- b. Personal hygiene and handwashing:
- i. Recognizing the association between hand contact and foodborne illness:
    - i. Proper hand washing techniques and frequency requirements;
    - ii. Requirements for use of gloves, including replacement frequency; and
    - iii. The requirements for bare hand contact with food.
  - ii. Recognizing the association between employee behaviors and foodborne illness:
    - i. Cleanliness of outer clothing;
    - ii. Requirements for employees wearing jewelry, artificial fingernails, and fingernail polish;
    - iii. Hair restraint requirements;
    - iv. Requirements for employees eating, drinking, and using tobacco; and
    - v. Personal behaviors, including sneezing, coughing or runny nose.
- c. Food sources: Identifying potential hazards prior to and during delivery:
- i. The importance of utilizing foods from approved sources;
  - ii. Ensuring foods are safe, unadulterated and received at the proper temperatures; and
  - iii. Ensuring foods are promptly stored in the proper locations.
- d. Cleaning and sanitizing of equipment and utensils:
- i. Describing proper procedures of cleaning and sanitizing: manual, mechanical, and clean-in-place (CIP);
  - ii. Identifying requirements for sanitizer concentrations and contact times;
  - iii. Identifying cleaning frequency requirements;
  - iv. Identifying test kits/thermometer requirements and proper use; and
  - v. Identifying requirements for storing clean equipment.
- e. Recognizing proper facility design/construction and their relationship to managing food safety:
- i. Flow of food through the facility;
  - ii. Menu or list of foods to be served and/or sold;

- iii. Ventilation;
- iv. Finish surfaces;
- v. Outdoor areas;
- vi. Solid waste facilities;
- vii. Plan of lighting;
- viii. Storage of dry goods;
- ix. Food equipment and utensils:
  - i. Sufficient in number and capacity; and
  - ii. Properly designed, constructed, located, installed, operated, maintained, and cleaned;
- x. Plan to control pests and rodents; and
- xi. Plumbing systems and equipment including source of water.
- f. Active managerial control of foodborne illness risk factors:
  - i. Identifying the importance of development and implementation of specific policies, procedures, or standards to prevent foodborne illness;
  - ii. Describing the principles of Hazard Analysis Critical Control Point (HACCP); and
  - iii. Identifying the importance of training of food employees.
- g. Proper cooking, cooling, reheating, thawing and holding of food:
  - i. Describing the required time and temperature parameters for cooking, cooling, holding and reheating of food and their relationship to controlling the growth of pathogens;
  - ii. Describing proper methods of thawing food;
  - iii. Describing the requirements for properly utilizing special processes, such as:
    - i. Time as a public health control;
    - ii. Non-continuous cooking;
    - iii. Smoking or curing foods;
    - iv. Using food additives;
    - v. Custom processing of meats;
    - vi. Packaging foods using reduced oxygen packaging (ROP); and
    - vii. Sprouting seeds or beans.
  - iv. Describing methods for properly using and calibrating thermometers.
- h. Cross contamination:
  - i. Identifying types of contamination: physical, biological, and chemical;
  - ii. Identifying methods to prevent contamination;
  - iii. Identifying proper methods for storing and displaying food;

- iv. Methods to prevent contamination of equipment and utensils;  
and
- v. Identifying proper methods to store equipment, utensils, and  
single-use items.