

HARTNELL COLLEGE

COURSE OUTLINE

CC Approval: 04/19/2018

Board of Trustees:

Last Revised:

DESIGNATOR & NUMBER: ABT 130COURSE TITLE: Introduction to Food SafetyCREDIT UNITS: 1.5FACULTY INITIATOR: Aileen Rickert-EhnSEMESTER HOURS:

24.00 - 27.00	Lecture Contact Hours
0.00	Lab Contact Hours
24.00 - 27.00	Total Contact Hours
48.00 - 54.00	Total Out-of-Class Hours
72.00 - 81.00	Total Student Learning Hours

TOTAL CONTACT HOURS (BASED ON 16-18 WEEKS)

24.00 - 27.00	Lecture
0.00	Lab
0.00	By Arrangement Lab Hours (DHR)

GRADING BASIS:

Grade Only

PREREQUISITE:COREQUISITE:ADVISORY:OTHER:COURSE DESCRIPTION:

An introductory course in food safety for those in agriculture majors and others interested in exploring career options. Covers conditions and practices that cause food borne illnesses, organisms responsible, elements of a food safety control system, worker sanitation, an introduction to best practices at the processing, retail and home kitchen. Field trips may be required.

COURSE OBJECTIVES:

Upon satisfactory completion of the course, students will be able to

1. interpret the implications of conditions that can lead to food borne illness.
2. categorize the elements of a food safety control system.
3. evaluate risks and propose mitigating actions commonly employed in a specific segment of the food processing industry.
4. describe the importance of food safety programs.
5. identify sources of food safety information.
6. discuss the pros and cons of careers in food safety.
7. differentiate the sources of food contamination.

COURSE CONTENT:

- I. History of food safety
 - A. Impact of contamination
 - B. Cost
 - C. Public trust
 - D. Public health
 - E. Regulatory response
 - F. Consumer trends and emerging demands
 1. Prepackaged foods, ready-to-eat, GMOs
 2. Public education about safe food handling
 - G. Current challenges
 - H. Prospects
- II. Elements of a food safety control system
 - A. Current food law and regulations, food transport
 - B. The food chain: From field to fork
 - C. Pathogen reduction strategies
 - D. Roles of food inspection and government agencies
 - E. Laboratory services
 - F. Labeling (COOL, allergen, best-by dates)
 - G. How the industry addresses food safety concerns
- III. Sources of contamination
 - A. Microbial
 - B. Chemical
 - C. Equipment
 - D. People
 - E. Water
 - F. Soil contaminants
 - G. General agricultural inputs (compost, fertilizer, plant protection, organic)
- IV. Scope of the industry
 - A. Canning
 - B. Fresh produce (leafy greens, tomatoes, melons, strawberries, others)
 - C. Frozen
 - D. Animal products (beef, dairy products, eggs)
 - E. Fish
 - F. Dairy
 - G. Additives
- V. Industry food safety programs
 - A. Definitions (terminology, programs, interventions/sanitation)
 1. Terminology
 2. Programs
 3. Interventions/sanitation

- 4. Specialty specific
 - B. Hazard Analysis and Critical Control Program (HACCP)
 - C. Good Agricultural Practices (GAPs)
 - D. Good Manufacturing Practices (GMPs)
 - E. Generally Recognized as Safe (GRAS)
 - F. Audits
- VI. Resources
 - A. Other training programs
 - B. Publications
 - C. Industry associations
 - D. Governmental, university websites
- VII. Careers in food safety
 - A. Careers/career paths
 - B. Training and educational requirements
 - C. Working conditions and hours
 - D. Pay levels and benefits
- VIII. Challenges and prospects reprise
 - A. How the different areas impact one another
 - B. Emerging pathogens
 - C. Developments in food production

INSTRUCTIONAL METHODOLOGY:

Lecture

Individual Assistance

Audiovisual (including PowerPoint or other multimedia)

Demonstration

Discussion

Group Activity

Requires a minimum of three (3) hours of work per unit including class time and homework.

METHODS OF EVALUATING OBJECTIVES OR OUTCOMES:

Methods of evaluation to determine if students have met objectives may include, but are not limited to the following:

CLASSROOM

	EXPLANATION
Class Activity	Student participation in discussions, group problem solving, use of internet
Oral Assignments	Reporting current events
Written Assignments	Written reports on specific topics, speakers, and field activities

EXAMS

	EXPLANATION
Comprehensive Final	Short, written answers and multiple choice
Problem Solving	Evaluating risks of contamination
Skill Demonstration	Identify risks of contamination in a given situation
Objective Test	Portions of the midterm and final
Quizzes	Weekly

MINIMUM STUDENT MATERIALS:

Textbook(s) similar to:

Binder containing handouts, including research papers, trade publications, protocols, GAPs, and other current information.

COURSE ASSIGNMENTS

Examples of Reading Assignments

Project assignments, internet articles, field trips and industry specific safety guidelines.

Examples of Writing Assignments

Report or case study on historical food safety issue or outbreak.

Examples of Outside Assignments

Research current events in the industry, written reports on guest speakers, assignments to propose solutions to various potential food borne illness hazards.

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