



## Course Number and Title: FSY 210 Food Safety and Defense

**Campus Location:**

Georgetown

**Effective Date:**

2020-51

**Prerequisite:**

FSY 110

**Co-Requisites:**

None

**Course Credits and Hours:**

3.00 credits

2.00 lecture hours/week

2.00 lab hours/week

**Course Description:**

In this course, students learn food defense program principles required in facilities and retail establishments that manufacture, process, package, ship, store, and sell food by creating a food defense culture for those who are exposed to food products. Topics include bioterrorism requirements for the federal food defense regulations and management's responsibilities to protect the global food supply. This course prepares students for the Food Defense Manager Certification Examination.

**Required Text(s):**

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

**Additional Materials:**

None

**Schedule Type:**

Classroom Course

Hybrid Course

Online Course

**Disclaimer:**

None

**Core Course Performance Objectives (CCPOs):**

1. Describe the issues and challenges of protecting the food industry from intentional tampering, terrorism, and sabotage. (CCC 1, 2, 4, 5; PGC 6, 7)
2. Identify the skills necessary to contribute to a food industry's organization efforts in food defense. (CCC 2, 3, 5; PGC 5, 6, 7)
3. Use assessment tools to prepare the appropriate responses and plans to reduce the vulnerabilities and risks to an organization. (CCC 1, 2, 4, 5, 6; PGC 6, 7)
4. Explain an organization's process to identify threats, implement recall strategies, and comply with government security inspections, emergencies, and crisis management. (CCC 1, 2, 3, 4, 5; PGC 6,7)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

**Measurable Performance Objectives (MPOs):**

Upon completion of this course, the student will:

1. Describe the issues and challenges of protecting the food industry from intentional tampering, terrorism, and sabotage.
  1. Define terms *intentional tampering*, *terrorism*, and *sabotage*.
  2. Differentiate between intentional and unintentional tampering.
  3. List tampering prevention measure.
  4. Define *food defense*, and differentiate between food defense and food safety.
  5. Identify the causes of contamination in the food supply due to biological, chemical, and physical hazards.
2. Identify the skills necessary to contribute to a food industry's organization efforts in food defense.
  1. Select the skills required for an organization's hiring process.
  2. Review an organization's employee training programs on the topic of food defense.
  3. Explain an organization's policies and procedures for food safety and defense.
3. Use assessment tools to prepare the appropriate responses and plans to reduce the vulnerabilities and risks to an organization.
  1. Prepare a vulnerability assessment, and choose the appropriate measures to lessen an identified risk.
  2. Use the assessment tools the Food and Drug Administration (FDA) has provided for the food industry to develop and implement a food defense plan.
  3. Give examples of workplace violence scenarios, and provide types of techniques to properly handle workplace violence.
  4. Demonstrate how to develop a food defense plan using a vulnerability assessment tool, and develop a food defense team.
4. Explain an organization's process to identify threats, implement recall strategies, and comply with government security inspections, emergencies, and crisis management.
  1. Identify various threats that could affect an organization's process to manufacture food.
  2. Describe emergency evacuation measures used in the event of a threat.
  3. Differentiate between a traceability and recall program, and identify the best program to use if an intentional contamination event occurred.
  4. Describe a crisis management program, and create a crisis scenario that can be tested at a manufacturing facility.
  5. Discuss the requirements of the Bioterrorism Act, Customs-Trade Partnership Against Terrorism (C-TPAT), FDA security guidelines, and the Food Safety Modernization Act (FSMA).

**Evaluation Criteria/Policies:**

Students must demonstrate proficiency on all CCPOs at a minimal 75 percent level to successfully complete the course. The grade will be determined using the Delaware Tech grading system:

92	-	100	=	A
83	-	91	=	B
75	-	82	=	C
0	-	74	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

**Final Course Grade:**

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Summative: Exams (5) equally weighted	70%
Summative: Lab Activity; Food Defense Plan, Food Defense Certification Exam (equally weighted)	20%
Formative: Written assignments /Study Questions	10%
TOTAL	100%

**Core Curriculum Competencies (CCCs are the competencies every graduate will develop):**

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

**Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):**

1. Apply knowledge of the theories and principles of biology, chemistry, and food microbiology.
2. Analyze food samples by common and quantitative and qualitative techniques.
3. Identify emerging technologies and ingredient innovations that have the potential to transform product and process development.
4. Analyze market trends associated with the development of foods to maintain and improve health.
5. Apply knowledge of food processing to improve the quality, efficiency, and sustainability of processing and packaging efforts.
6. Apply knowledge of best practices, risk analysis, traceability, and analytical tools in the areas of microbial and chemical food safety and defense.
7. Apply knowledge of public policy, food laws, and regulations that have national and international implications for the food industry, research, and consumer food safety.

**Disabilities Support Statement:**

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.