Issues in Food Systems: Food Safety
HCOL 185 Fall 2019

Instructor: Dr. Catherine W. Donnelly, Ph.D.
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Office Hours: By Appointment

Class Meeting Times: MW 3:30-4:45 357 Carrigan Wing/MLS

Target Audience: Sophomore Students in the Honors College

Text: Selected Readings to be assigned

Course Objectives:

Each year in the U.S., foodborne illness affects 48 million individuals. The pathogens Salmonella, Listeria, Escherichia coli O157:H7, Vibrio, Campylobacter and Clostridium perfringens are among the foodborne pathogens that cause serious illness that occasionally leads to death. Assuring the continued safety of the foods we eat is at the heart of a vibrant food system.

- This course will address issues that influence the development of microbiological food safety policy, through analysis of how science and risk assessment are used in establishing policy in a food systems context.

The food system encompasses production, processing, wholesaling, distribution, retailing, consumption and waste management. Food system literacy implies knowledge of these individual components and making informed decisions that support a healthy and sustainable environment.

- How we achieve assurance of food safety within the food system will be the focus of this course.

Using selected case studies and readings, we will examine the factors that have created current food safety policies and explore how future improvements can be made to protect public health.

- Can food producers of all sizes achieve compliance with current food safety regulations?
- What role do consumers play in shaping reforms in policies that govern the safe production of foods?
Students will become familiar with the roles and responsibilities of the FDA, USDA, State Departments of Agriculture and Health and the CDC in shaping policy, as well as the use of tools such as HACCP, Risk Assessment, FoodNet, PulseNet and GenomeTrakr in identification of emerging food safety issues.

Through readings and class writings, students will become familiar with the scientific literature that addresses food safety issues, and how to utilize the scientific literature as a basis for submitting public comments concerning changes in food safety policy.

Grading: Attendance is mandatory as participation in class discussions will account for 10% of your grade. We will have class assignments that will encompass 20% of your grade. We will have two exams: a mid-term and a final exam, each of which will count for 20% of your grade. We will also have a class project, which will account for 30% of your grade.

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<th>Grade</th>
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<td>Mid-Term</td>
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<td>Final Project</td>
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<td>Class Participation</td>
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Class Schedule:

**August 26:** Introduction to Food Safety and Public Policy:

Introductions and Syllabus review

Readings:

The Burger that Shattered Her Life


**August 28:** Development of food safety regulations and an overview of foodborne disease in the U.S.

Class Discussion: The Burger that Shattered Her Life
September 2: No Class-Labor Day

September 4: Meat Safety

September 9: Raw Milk and Food Safety: Changing Regulations

Reading Assignments:

September 11: Class Discussion-Raw Milk Consumption, Sales and Public Health Impacts

Writing assignment: thoughts on raw milk consumption and meat safety

September 16: Food Safety Reform: FDA Food Safety Modernization Act

September 18: Food Safety Modernization Act

September 23: No class

September 25: No class
September 30: *Listeria monocytogenes*: outbreaks, risk assessment and control

October 2: Shelf Life and Food Safety

October 7: Produce Safety

October 9: The Produce Dilemma

October 14: No class

October 16: Redefining Pasteurization

October 21: Redefining Pasteurization: Class discussion

October 23: Raw Oysters and Vibrio illness

October 28: Vibrio illness and climate change

October 30: International Food Safety Standards

November 4: Harmonizing International Food Safety Standards
“……Consumer participation in food safety debates is fundamental. Consumers have a right to know and to choose what they are eating and a right to participate in determining what level of food safety risk is acceptable. However, many scientists and regulators are afraid consumers might reject something that is perfectly safe for reasons that cannot be supported by science.

A complex issue, this raises many questions: To what extent should industry and government paternalistically decide what level of risk consumers should accept? How much influence should consumers have in determining what products or processes they are willing to accept? And to what extent should other factors such as values be incorporated into the food safety debate?
There is generally no forum to discuss such issues, and food safety debates often unduly emphasize what is scientifically known about a food safety hazard when the issue at hand is really a conflict of values……”


This class will serve as a forum to discuss and debate current microbiological food safety issues.

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In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact SAS, the office of Disability Services on campus. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly encouraged to meet with their faculty to discuss the accommodations they plan to use in each course. A student's accommodation letter lists those accommodations that will not be implemented until the student meets with their faculty to create a plan. Contact SAS: A170 Living/Learning Center; 802-656-7753; access@uvm.edu; or www.uvm.edu/access