

# Global Food Safety (NFS 254)

Spring 2023

T/R 10:05-11:20 am; Waterman 401

**INSTRUCTOR:** Andrea Etter; [andrea.etter@uvm.edu](mailto:andrea.etter@uvm.edu) ; MLS 353;

**OFFICE HRS:** MLS 353, by appointment; schedule with [Calendly](#)

**PRE-REQUISITES:** Passing grade (2.0 min) in NFS 113 or NFS 114 *plus* either NFS 153, MMG 001 or MMG 101

**COURSE DESCRIPTION:** an overview of food safety issues, policies, and opportunities around the globe, with a focus on bacterial, viral, and parasite-based food safety challenges.

## **COURSE LEARNING OBJECTIVES:**

Upon successful completion of this course, the student will be able to do the following:

- Understand how/why food safety problems are different around the globe
- Understand the differing challenges of microbial vs chemical vs parasite-based food safety issues
- Understand how food insecurity impacts food safety
- Evaluate different nations'/regions' approach to food safety regulation and
- Identify the pros and cons of different food safety regulation approaches
- Explain how food safety challenges in other regions can have a global impact
- Understand the global trends which will affect food safety in the coming decades
- Identify and evaluate promising approaches for tackling global food safety problems

**REQUIRED MATERIALS:** All required reading will be posted on Blackboard. If you are not familiar with the common foodborne pathogens, I recommend you read the FDA's Bad Bug Book (2<sup>nd</sup> edition), which you can download for free here: <https://www.fda.gov/files/food/published/Bad-Bug-Book-2nd-Edition-%28PDF%29.pdf>

## **GENERAL INFORMATION:**

### Student Learning Accommodations:

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](mailto:access@uvm.edu) [www.uvm.edu/access](http://www.uvm.edu/access)

### Undergrads:

*Quizzes:* Questions on the quizzes will be in the form of multiple choice and short answer/short essay. Each quiz will cover the material since the previous quiz. All quizzes will include **critical thinking** questions that will give you the opportunity to apply the material we learned in class to new situations.

*Make-up quizzes:* In case of illness or family emergency, quizzes may be made up without penalty **IF** you notify the instructor no later than class time **OR** if you have a note from the student health center that covers the quiz date

*WARMUP ASSIGNMENTS:* Approximately weekly you will be asked to find a news/research article on an aspect of food safety globally and submit a short write up to Blackboard. Instructions will be provided

*MINI-PRESENTATIONS:* Once a week, we will dedicate part of a class period to the news/research food safety topics students submit for warmup assignments. You will be expected to be ready to talk about your warmup submission for several minutes and answer Dr. Etter's (or your classmate's questions). I will keep track of student presentations for each mini-presentation.

*Discussion:* As much as possible, this will be an interactive class. I encourage you to come with questions and to ask questions in class.

*FINAL PAPER:* In lieu of a final exam, each student will be required to write a final paper. This is expected to be an in-depth examination of one of the topics covered in the class and will represent **25%** of your grade. Details will be provided

### Graduate Students:

*EXAMS:* Graduate students will write **two** review papers on topics covered in class. These papers will be based on peer-reviewed literature and be 5 pages long minimum, with a minimum of 15 sources. These are expected to synthesize and analyze information on your topic of choice and to heavily cite the published literature

*WARMUP ASSIGNMENTS:* Approximately weekly you will be asked to find a news/research article on an aspect of food safety globally and submit a short write up to Blackboard. Instructions will be provided. As graduate students, however, yours must be based on peer-reviewed literature and will be expected to be presented in plain (non-technical) language

*MINI-PRESENTATIONS:* Once a week, we will dedicate a class period to the news/research food safety topics students submit for warmup assignments. You will be expected to be ready to talk about your warmup submission for several minutes and answer Dr. Etter's (or your classmate's questions). I will keep track of student presentations for each mini-presentation.

*Discussion:* As much as possible, this will be an interactive class. I encourage you to come with questions and to ask questions in class.

*FINAL PAPER:* In lieu of a final exam, each student will be required to write a final paper. This is expected to be an in-depth examination of an aspect of one of the topics covered in the class and will represent **25%** of your grade. These papers will be based on peer-reviewed literature and be 6 pages long minimum, with a minimum of 20 sources. A higher level of detail and analysis will be expected than from undergraduate papers, and should be written to a higher level than your previous two papers for this class.

**GRADING:**Undergrads: 400 pts possible

15 quizzes, 12 pts each: 180 points

12 Mini-presentations Sessions, 5 pts each:  
60 points12 Warm-Up Assignments, 5 points each:  
60 pointsFinal paper (topic 10 pts, final version 90 pts)\*  
100 points*\*BONUS 5pts for turning in rough draft (see  
date on schedule)*Grads: 402 pts possible3 review papers, 90 points each  
270 points12 Mini-presentations Sessions, 5 pts each:  
60 points12 Warm-Up Assignments, 6 points each:  
72 points*\*5 BONUS points for turning in rough draft for  
1<sup>st</sup> paper.*

**\*\* You are responsible for keeping track of your grades. Not all of your scores may be entered in the Blackboard gradebook; therefore, the "CURRENT GRADE" percentage reported in Blackboard is NOT accurate.**

Final grades will be calculated as earned percentages of the total points possible:

**(NOTE: for graduate students, a grade of less than a C- is considered a failing grade, per [UVM policy](#))****97-100: A+      93-96: A      90-92: A-****87-89: B+      83-86: B      80-82: B-****77-79: C+      73-76: C      70-72: C-****67-69: D+      63-66: D      60-62: D-****≤59: F**GPA will be assigned as per the registrars guidelines: <https://www.uvm.edu/registrar/grades>

## POLICIES AND PROCEDURES

**ATTENDANCE:** 16.5% of your grade is based on class presentation (mini-presentations); it will significantly negatively impact your grade to regularly miss mini-presentations. Additionally, most of the exam material will come from lectures rather than readings; consequently, attendance and good note-taking is vital.

**GRADUATE STUDENT PAPERS TIPS:** Students have substantial leeway in choosing topics for their papers; however, I recommend that students write on topics that could become part of a future paper or thesis/dissertation literature review. I am happy to review potential topics for fit with the assignment guidelines

**CLASSROOM BEHAVIOR POLICY:** All participants in this course shall be treated with dignity and respect. Anyone who consistently fails to demonstrate respect for others will be asked to withdraw from the course. To ensure that the classroom is an optimal environment for learning, the following rules will be observed:

- **Cellular phones, wireless internet devices, pagers, and audio devices of any type must be turned to silent while in the classroom**
- **No electronic devices will be allowed to be in use during an exam.** If you have special circumstances, please consult your professor IN ADVANCE.
- **Cheating Policy:** Students caught cheating on exams will receive no credit for that exam. Homework assignments that show strong evidence of copying (*e.g.*, responses that are word-for-word identical to another student's response) will likewise receive no credit. **Photography of keys and exams is strictly prohibited and considered cheating.**
- **Plagiarism:** Students are expected to cite sources at the end of each sentence discussing non-common-knowledge information. Failure to adequately cite sources will result in a lower grade. Direct quotations without citation and parentheses will be considered plagiarism and may result in a zero on the paper.

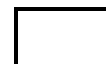
**COURSE WITHDRAWAL:** If you decide to drop this course for any reason, then it is your responsibility to officially withdraw. However, **please come talk to me first.**

**EXTRA CREDIT:** At her discretion, Dr. Etter may offer extra credit assignments from time to time. ***No extra credit assignments will be offered after the semester ends (12/10).***

**LETTERS OF RECOMMENDATION:** I am delighted to write letters of recommendation for good students. If you anticipate wanting a letter of recommendation from me, please let me know **as early as possible** and make an appointment to talk to me about your career plans (*i.e.*, what you need the letter for). This will allow me to write a much more informed letter for you. I will not write you a mediocre or negative letter; **if I feel I cannot provide a strong letter, I will turn down your request or ask for more information.**

## January-May 2023

Day	Date	Topic	Assignments
T	17-Jan	Why Global Food Safety? Food safety challenges brainstorming exercise/discussion; Scallan Review	Read Syllabus before Class
Th	19-Jan	The major pathogens: Scallan review, cont; WHO global pathogens of concern	Quiz
T	24-Jan	Global Food Safety Organizations	Warmup: food safety orgs;
Th	26-Jan	Food Safety & Food Safety Challenges: Europe	Quiz
T	31-Jan	Food Safety Challenges: Europe, con't. Mini-presentations European Food Safety Challenges	Warmup: European food safety challenges
Th	2-Feb	Food Safety Challenges: Latin America; Guest speaker	Quiz
T	7-Feb	Food Safety Challenges: the African continent; Guest speaker (Eurydice Aboagye)	Warmup: parasites & food security
Th	9-Feb	Food Safety and Food Security: U.S. vs the developing world; parasites & poverty	Quiz
T	14-Feb	Food Safety Challenges: India; mini-presentations; rising players	Warmup: FSC: rising players
Th	16-Feb	Food Safety Challenges: China	Quiz
T	21-Feb	Conflicts and food safety; Afghanistan (& Ukraine?) as case studies;	Warmup: global events and food safety
Th	23-Feb	Natural disasters and food safety	Quiz; <b>Grad paper #1 due by 11:59pm</b>
T	28-Feb	Multinational outbreaks; impact	Warmup: multinational outbreaks
Th	2-Mar	Chemicals in food and agriculture;	Quiz
T	7-Mar	Town meeting day	
Th	9-Mar	<b>Antimicrobial resistance; Antibiotic use in agriculture; global trends and impacts</b>	Quiz
T	14-Mar	Spring Break	
Th	16-Mar	Spring Break	
T	21-Mar	Global MDR/AMR efforts; mini-presentations (AMR);	warmup: AMR
Th	23-Mar	Global Commerce & challenges to Food Safety; mini-presentations (GC & food safety)	Quiz
T	28-Mar	Food allergens: guest speaker Luke Emerson-Mason (Bia Diagnostics)	
Th	30-Mar	Agricultural issues: foodborne pathogens and biosecurity; mini-presentations biosecurity issues	Quiz <b>Grad paper #2 due by 11:59pm</b>
T	4-Apr	Food safety policy approaches: EU vs US	
Th	6-Apr	U.S. approach, continued; E.U. approach; other approaches	Quiz;
T	11-Apr	Discussion/debate: European vs U.S. food safety models	Warmup: both positions (12 pt)
Th	13-Apr	Food Safety Education/knowledge (US/EU/Canada/etc)	Quiz
T	18-Apr	Food Safety knowledge (India/Africa/Latin America)	warmup: food safety education
Th	20-Apr	TBD	Quiz
T	25-Apr	Bushmeat, raw milk, and insects: the very bad, bad, and good	Warmup: alternative diets & food safety
Th	27-Apr	TBD	Quiz



T	2-May	New food safety endeavors (global); New food safety/security tech	New food safety endeavors
Th	4-May	Future food safety challenges; Mini-presentations (Future FS Challenges); WRAPUP	<b>Quiz</b>
T	11-May		