



AGSC 5540: Food Policies and Regulations (Food Law)

FALL 2020

COVID-19 Updates:

As we are experiencing a national and global respiratory pandemic/endemic, this course is going to be conducted in a hybrid mode. Vast majority of lectures will be delivering online via Zoom and via posting information on eLearn. Additional information could also be posted on Public Health Microbiology Website (<https://publichealthmicrobiology.education/>) for assuring the accessibility of course content by students. Students are expected to provide an active email address to the course instructor and are required to check and reply to course communications via email. All students are requested to be present and visible during the online sessions. Small portion of class could be scheduled in person and on campus. Those (vastly optional) sessions will be organized with extreme precautions to assure the safety of matriculated students and teaching team of the course. Students are welcome to contact the instructor via phone during the office hours or if their question is time-sensitive and cannot wait for the office hour, they are welcome to contact the instructor any other time during the business hours/weekdays via phone or email.

Course Description:

This course is to familiarize students with the critical aspects of food safety and current regulation of food products in the United States including microbial food safety of processed food and fresh produce, food additive regulation, food labeling, dietary supplements, nutrients labeling of products, the protection of the food supply from natural and anthropogenic pathogens, food safety modernization act regulation, as well as overviews of Hazard Analysis and Critical Control Point.

Rationale:

With the tremendous ability of a plethora of microorganisms to move towards diversity and “*fitness*” through vertical and horizontal gene transfer mechanisms, assuring public health safety against natural and anthropogenic foodborne pathogens is a daunting task and a moving target. Enhanced global travel and commerce, increased proportions of infectious diseases in “*at-risk*” populations, and consumers’ demand for nontraditional commodities such as minimally processed and ready-to-eat products provide breeding grounds for emerging, novel, and reemerging infectious diseases. Foodborne diseases cost an estimated 420,000 lives every year around the globe and are collectively responsible for the loss of over 33 million years of healthy living annually. Every year, 1 out of 6 Americans experiences illnesses from these pathogens, leading to about 128,000 hospitalizations and over 3,000 deaths.

Students Evaluation and Assessment:

The students will be provided an open-book, open-resources class assignment/quiz during every session to assure complete assimilation of course content and objectives. This system had been in place since Fall 2018 and former cohort of students had provided a very positive rating of the



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course. In class activities are evidence of class participations and are designed to assure students assimilate the lecture content. They are not for grading purposes and will be collected by the instructor by the end of each session. For on-line classes during the COVID-19 respiratory pandemic/endemic, the students are expected to return the class activities by the end of each session to the instructor by email. Please include “[AGSC 5540] Class Activities” in the title of email and send the email to [afouladk@tnstate.edu/](mailto:afouladk@tnstate.edu)

Class Schedule: Thursdays 4:40 to 8:00 pm.

Zoom link: <https://tennessee.zoom.us/j/95996572996> (passcode: 905974)

Office Hours: Wednesday 2:00 to 4:00 pm. (Additional office hours available by appointment)

Zoom link: <https://tennessee.zoom.us/j/99471638166> (passcode: 221523)

Final Exam: Wednesday, 11/25/2020 5:00 to 7:00 pm.

Zoom link: <https://tennessee.zoom.us/j/93284239142> (passcode: 662075)

Additional Friday Sessions (Optional): Friday instructional hour sessions are design for questions about exams, FSMA certification, project, and course contents from 2:00 to 4:00 pm.

Zoom link: TBD, based on collective availability and agreement.

Course Instructor/Director:

Aliyar Fouladkhah, PhD, MS, MPH, MACE, CFS, CPH

Assistant Professor/ Faculty Director of Public Health Microbiology Laboratory

Suite 111A. Lawson Hall Research Complex, Telephone: (970)690-7392 | afouladk@tnstate.edu

Teaching Fellows:

Mino Bagheri, PhD, MSPH. Visiting Scholar, Public Health Microbiology Laboratory, Lawson Hall Room 112.

Sadiye Aras, MS| PhD Candidate, Public Health Microbiology Laboratory, Lawson Hall Room 112. Email: saras@my.tnstate.edu

Sabrina Wadood, MS student, Public Health Microbiology Laboratory, Lawson Hall Room 112. Email: swadood@tnstate.edu



Suggested Textbooks:

Fouladkhah, A.; Bisha, B. *Advances in Prevention of Foodborne Pathogens of Public Health Concern during Manufacturing*. 1st ed. 2019. MDPI, Basel, Switzerland.

Wilde, P. 2018. *Food Policy in the United States: An Introduction*. Routledge.

Pomeranz, J.L., 2015. *Food Law for Public Health*. Oxford University Press.

Heinzerling, L, 2017. *Food Law: Cases and Materials*. Georgetown Law center.

Fortin, N.D., 2016. *Food regulation: law, science, policy, and practice*. John Wiley & Sons.

IAFP. 2011. *Procedures to Investigate Foodborne Illness*. Sixth Edition, Springer.

Learning Outcomes:

After a successful completion of this course, the student would be able to:

- Identify and assimilate the threat of foodborne pathogens of public health concern.
- Understand the laws and regulations applying to foods and food products from production and distribution to retail sale.
- Describe the current issues in food regulation, including food safety regulation and food security.
- Gain knowledge on Food Safety Modernization Act (FSMA) and Hazard Analysis Critical Control Point (HACCP).
- Recognize the process of additive approval in the US as well as nutritional labeling and health claims.
- Identify the critical role laws and regulation plays in protecting the public health against foodborne disease episodes and the importance of climate change in food safety landscape.

Evaluation:

Term Paper	30 %*
Attendance and Class Activities	25 %**
Mid-term Exams	25 %
Class Assignments	10 %
Final Exam (optional)	10 %
Total	100 %



Extra Points:

* Up to 10% extra credit point for those who complete an outstanding review paper for submission to an academic journal (decided by instructor and teaching fellows). Up to 5% extra credit for those complete a brief outreach style article for publishing under “Food for Public Health,” section of Public Health Microbiology Laboratory website (Available at: <https://publichealthmicrobiology.education/>). Students will serve as the first author of these efforts and will receive additional support from the instructor and/or teaching fellows as the co-authors of the studies. Publishing the class work is not required for class completion and those students with outstanding term paper will be selected by the course instructor for this opportunity and for the extra credit points.

**up to 5% for attending regional IFT meetings (if becoming available during semester), information will be provided in class.

The following grading scale will be used for assigning term letter grades:

Grading Scale:

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = below 60%

COURSE POLICIES

Students are prohibited to share course content, recording and examination to any individual or make the content publicly available via online platforms. The instructor is the copy right owner of the content of the course.

Term Paper: Students of the class are expected to complete a review paper in a topic revolving around the microbial food safety and food laws. The paper topics would need to be discussed individually with the course instructor to assure compatibility to the course content. Teaching fellows of course will also assist students for construction of the manuscript for those interested to publish their work. This would need to be original writing of the student from using at least 10 peer-reviewed articles. For those who are willing to publish their work and receive extra credit points, their review paper should be a critical and evidence-based evaluation of at least 20-50 peer-reviewed articles. Students could also request to present summary of their progress (5-10 minutes talk) during the semester to the class to gain public speaking experiences. They would need to discuss this with the course instructor to assure availability of time.

Depending on the extent and quality of the review article, students are eligible to receive up to 10% extra credit point and up to \$1200 *Publication Scholarship* of Public Health Microbiology



program to be used towards the open access fees of the publication in the below special issues.

The term papers are recommended to be constructed based on the guidelines of *Microorganisms* or *IJERPH* available at:

https://www.mdpi.com/journal/microorganisms/special_issues/foodborne_waterborne_diseases

or https://www.mdpi.com/journal/ijerph/special_issues/Food_Waterborne_Microbiology

An example of publication from a past student in the course is available at:

<https://www.mdpi.com/2076-2607/7/3/77>

Attendance: Attendance in this class is required and role is taken regularly. Absences are excused only by presentation of a valid excuse. Excessive unexcused absences will decrease one's final grade at the discretion of the instructor.

Exam Policies: Exam dates will be announced by the instructor in lecture at least one week prior to the examination. You must let the instructor know as soon as possible if you know you will miss an exam. There will be NO make-up exams. If you miss an exam and you provide a valid excuse, your score on the final exam will be used in place of the exam you missed. This will be allowed for only one missed quiz or exam.

Disability Policy: It is the policy of TSU to accommodate students with disabilities, pursuant to federal and state law, and the University's commitment to equal educational opportunities. Any student with a disability who needs accommodations, for example in seating placement, or in arrangement for examinations, should inform the instructor at the beginning of the course. Students with disabilities are encouraged to contact the Office of Disabled Student Services, which is located in Kean Hall, room 117, telephone 963-7400 or 963-7872.

Academic and Classroom Misconduct: Academic and classroom misconduct will not be tolerated. Students are expected to conduct themselves appropriately at all times (cell phone usage is not allowed in the classroom). In keeping with the purpose of the university, it is expected that all students will maintain proper attitude and behavior at all times during lecture. Respect for colleagues must also be maintained (arrive on time, no excessive talking during lecture, etc.) so that each class member will have equal opportunity to receive the best education for that student.

Academic Dishonesty, Plagiarism, and Cheating: Put simply, academic dishonesty, plagiarism, and cheating will NOT be tolerated. Although you are encouraged to collaborate on problems sets, the work you turn in must be your own, and not simply a re-copy of someone else's work. If you are caught plagiarizing or cheating, the first offense will result in a score of zero for the assignment or exam. A second offense will result in a zero (F) for the course, and a letter stating the reason for the failure will be added to your student record.

Alterations to Syllabus: During the course, it may become necessary for the instructor to modify this syllabus to meet the changing needs of the students or because of unforeseen circumstances. All such changes will be announced in advance in the classroom by students. Additional information will be posted to the web page for this class.



Tentative Classes Schedule, Fall 2020, Subject to Change

Date	Topic
Week 1 <u>8/20/2020</u>	<p align="center">The Public Health Necessity for Food Regulations I/II</p> <p align="center">Epidemiology of Transboundary Diseases of Importance in the United States</p> <p align="center"><i>Description of Course Assignments and Syllabus</i></p> <p align="center"><i>Description of Term Paper Assignment</i></p>
Week 2 <u>8/27/2020</u>	<p align="center">The Public Health Necessity for Food Regulations II/II</p> <p align="center">Foodborne Diseases of Public Health Importance</p> <p align="center"><i>CDC NORIS data Assignment</i></p> <p align="center"><i>Discussion of Topics of Term Paper</i></p>
Week 3 <u>9/3/2020</u>	<p align="center">Dietary Guidelines for American I/II</p> <p align="center">Evidence-based Policies for Creating a Healthy Eating Pattern</p> <p align="center"><i>Finalizing the Topics for Term Paper</i></p> <p align="center"><i>CDC NORIS Data Assignment: Due before start of the class</i></p>
Week 4 <u>9/10/2020</u>	<p align="center">Dietary Guidelines for American II/II</p> <p align="center">Evidence-based Policies for Creating a Healthy Eating Pattern</p> <p align="center"><i>Literature Review Due for Term Paper</i></p>
Week 5 <u>9/17/2019</u>	<p align="center">Guidelines for Foodborne Disease Outbreak Response (CIFOE)</p> <p align="center">Investigation of Foodborne Diseases: Policies and Guideline</p>
Week 6	<p align="center">No Class Fall Break</p>



<u>9/24/2020</u>	
Week 7 <u>10/1/2020</u>	<p>Hazard Analysis and Critical Control Point (HACCP) Principles, and Application in Meat and Juice industries <i>Assignment: Development of a HACCP plan</i> <i>Review for Mid-term Exam</i></p>
Week 8 <u>10/8/2020</u>	<p>Mid-term Examination <i>Discussion on Review Paper Progress</i> Food Safety Modernization Act Certification II/IV <i>HACCP Plan Assignment Due at the Beginning of the Class</i> <i>Discussion on Review Paper Progress</i> <i>Optional Students Brief Presentation on Term Paper</i></p>
Week 9 <u>10/15/2020</u>	<p>Food Safety Modernization Act Certification II/IV <i>Discussion on Review Paper Progress</i> <i>Optional Students Brief Presentation on Term Paper</i></p>
Week 10 <u>10/22/2020</u>	<p>Food Safety Modernization Act Certification III/IV <i>First Draft of Term Paper Due before the start of the class</i> <i>Optional Students Brief Presentation on Term Paper</i></p>
Week 11 <u>10/29/2020</u>	<p>Food Safety Modernization Act Certification IV/IV <i>Students Brief Presentation on Term Paper</i></p>
Week 12 <u>11/5/2020</u>	<p>Food and Drug Administration Food Code Produce Safety Rule of Food Safety Modernization Act</p>

<p>Week 13 <u>11/12/2020</u></p>	<p align="center">Nutrition Fact Labeling</p> <p align="center">FDA's Generally Recognized as Safe (GRAS) List</p> <p align="center">Regulatory Requirements and Recent Changes for Nutrition Information Panel for Food Products and GRAS List- Food Additives and Health Claims</p> <p align="center">Food Fortification with Micronutrients</p>
<p>Week 14 <u>11/19/2020</u></p>	<p align="center">Food Safety and Climate Changes</p> <p align="center">Climate Change and Health, Climate Change Adoption, and Risk Communication</p> <p align="center"><i>Final Review Paper Due</i></p> <p align="center"><i>Review for Final Exam</i></p>
<p>Week 15 <u>11/25/2020</u> WEDNESDAY</p>	<p align="center">Final Examinations</p> <p align="center"><i>Announcement of Publication Scholarship Recipients, Certificates</i></p> <p align="center"><i>Review of the course content</i></p>

