

FOS 4936/6936 – Food Safety Systems

Course Hours & Location:

TR 5th Period (11:45 am to 12:35 pm)

Zoom meeting (the link is be provided through the Canvas course page)

Meeting ID: 950 8370 8326

Password: 255810 (For security reason, do NOT share zoom class password with others)

Instructors:

Dr. Soohyoun (Soo) Ahn (course organizer)

Food Science and Human Nutrition

Room 104A, Bldg. 120

E-mail: sahn82@ufl.edu (please, allow 24-48 hrs for a reply)

Phone: 352-294-3710

Office hours: M/T 9:00 to 11:00 am, all other times – by appointment only.

Dr. Renee Goodrich-Schneider

Food Science and Human Nutrition

Room 329, FSHN Bldg.

E-mail: goodrich@ufl.edu (please, allow 24-48 hrs for a reply)

Phone: 352-294-3726

Office hours: W/R 1:00 to 3:00 pm, all other times – by appointment only.

Course Description:

This course is designed to cover 1) current issues in food supply chain including security and safety in domestic and international food industry, 2) various food safety control systems, 3) principles of HACCP and FSMA Preventive controls. The course also provides hands-on practice in developing a food safety plan.

Textbook:

There is NO required textbook for this course. However, several books are recommended as our primary textbooks for this course:

- FSMA and Food Safety Systems (Barach), Wiley
- HACCP: A Practical Approach, 3rd Ed. (Molitor and Wallace), Springer
- Food Industry Quality Control Systems (Clute), CRC
- Food Safety Management (King), Springer

Supplemental notes and handouts will be distributed to class via Canvas system.

Course Objectives and Learning Goals:

After completing this course, students should

1. Recognize the importance of food safety to protect public health.
2. Identify the types of hazards, and list the factors promoting those hazards.
3. Recognize the importance of food safety in domestic and international food trade.
4. List and describe 7 principles of the HACCP system as a food protection tool.
5. Understand the importance of risk analysis in food safety and how risk analysis can be done in food industry.
6. Know how to develop a food safety plan based on risk analysis and preventive controls under the FSMA Preventive Controls for Human Food Rule.
7. Describe the role of federal, state and local jurisdictions in regulating and monitoring food safety and security assurance.

Course Format:

In Fall 2020, the lectures will be delivered 100% online. This is a synchronous online course, in which the lectures are delivered through live online lectures on its class time. All lectures will be delivered through zoom meetings. If there is any issue, pre-recorded lectures will be provided as an alternative. Students will acquire knowledge of the current food safety issues and various systems to control these issues through the lectures, class discussions, reading, and assignments.

Instruction Method:

All lectures are synchronously delivered online through Zoom. Students are expected to find the course materials at the course webpage. The course is divided into 10 modules. Each week, students will get access to a new page that contains materials for the given week. Each page consists of a link to video lectures, presentation slides and handouts, recommended reading materials, and additional supplementary materials (videos and/or readings) relevant to the module.

The best way to study the course materials in each module is to begin with the learning goals. It will help you understand the important learning points for that specific module. Next, join the video lecture during the class time. I recommend to print out the presentation handout prior to the lecture and take notes while you join. Presentation slides is a simple summary of what is being explained in the lecture. Much more details are explained in the lecture, and it will be helpful to take notes while you watch the video.

Then, read the assigned reading materials or watch the videos that are posted as supplementary materials (if any). These materials will provide details and support the lecture, and expand your scope of learning. This course does not have a required textbook, but have recommended textbooks, which are electronically available through the course reserves.

Grading:

In-class exams (3)*	60% (20% each)
Final Group Project (in lieu of final exam)**	40%
Total	100%

*In-class exams (60 min, open book/note exam) will each cover 1/3 of the course materials and be equally weighted.

Grading scale:

Passing grade	A	B+	B	B-	C+	C	C-	D+	D	D-	E
Course Average %	90-100	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	<60

Exam Details:

There are 3 exams in this course. Each exam covers multiple modules (but non-cumulative), and contains multiple choice, True/False, and short essay questions. They are open-note¹ exams, and will be **proctored by Honorlock**. All exams should be taken online via the Canvas course website. Exams will be open for 24 hrs, and should be taken during this time period. Each exam will be timed and, once you start the exam, should be completed in 60 min.

Honorlock will proctor your exams this semester. Honorlock is an online proctoring service that allows you to take your exam from the comfort of your home. You DO NOT need to create an account, download software or schedule an appointment in advance. Honorlock is available 24/7 and all that is needed is a computer, a working webcam, and a stable Internet connection.

To get started, you will need Google Chrome and to download the Honorlock Chrome Extension. You can download the extension at www.honorlock.com/extension/install. When you are ready to test, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

¹You are allowed to use lecture notes, presentation slides, and textbook for the exams. However, all lecture materials need to be **pre-printed** in advance to the exam. Honorlock will prevent you from opening other tabs, windows, or applications during the exam so that you cannot look up the information from the computer during the exam.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them by live chat, phone (844-243-2500), and/or email (support@honorlock.com).

Group Project Details:

Students will be assigned to work in a group of 2-4 (depending on the final enrollment number). Each group will be given a specific food product scenario, and work together to develop a HACCP plan or Food Safety Plan under the FSMA Preventive Controls for Human Food Rule (based on your product). This will be an iterative process that will result in a comprehensive overview of the HACCP/Food Safety Plan development and maintenance, which is a major learning objective for this course.

Since this is an online course, students will have an opportunity to work as a group during a zoom meeting (breakout session). Each group also can organize their online meeting or use discussion section on Canvas. If you need any assistance in organizing an online meeting, ask for help to instructors.

Policy regarding Make-up exam / Late work submission:

Each exam will be given as scheduled in course outline (see below). Students must take the exams on the day scheduled. Make-up exams will be allowed only for the case of verifiable emergencies or legitimate reasons (illness, family emergency). In those excusable circumstances, students should notify the instructor PRIOR TO the scheduled exam and provide proper proof afterwards. Instructor will refuse to give a chance to take a make-up exam unless a student provides the proof that the absence was excusable. All make-up exams MUST be taken within two days of the scheduled exam.

Due date will be given in advance for the project. All work must be completed by the designated due dates. No late work will be accepted unless arrangement is made with the instructor beforehand.

Technology requirements:

Students must use their Gatorlink email account for this course. Students are recommended to check their email account daily for the duration of the course. All students are required to have access to a computer with stable internet access, microphone, and webcam.

For issues with technical difficulties for E-learning in Canvas, please contact the UF Help Desk at:

- learning-support@ufl.edu
- (352) 392-4357 - select option 2
- lss.at.ufl.edu

** Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Communication Policy:

Students will have multiple channels to communicate with instructors:

- E-mails (either direct emailing or through Canvas mail)
- Canvas course page - Q&A forum in Discussion
- During the lecture, students can ask questions using “Chat” function in Zoom
- After the lecture, instructors will be available to take any questions

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. Please read the [Netiquette Guide for Online Courses](http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf) (<http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>).

Academic Honesty:

Student Honor and Conduct Code from University of Florida will be enforced on the case of infringement of academic integrity, including **plagiarism, cheating and prohibited collaboration or consultation**. Details can be found at: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

Disability Clause:

The Disability Resource Center provides services to students with physical, learning, sensory or psychological disabilities. These services include registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, and mediating any other disability-related issues. Disability Resource Center can be reached at 352-392-8565 or accessUF@ufsa.ufl.edu, and is located at 0001 Building 0020 (Reid Hall). Detailed information is available at: <https://disability.ufl.edu/>.

Campus Helping Resources:

On-campus resources are available for students having personal problems that interfere with their wellbeing and/or academic performances. There resources are:

1. UF Counseling and Wellness Center (3190 Radio Road, 352-392-1575), <http://www.counseling.ufl.edu>
2. Student Health Care Center (Infirmary Building, 280 Fletcher Drive, 352-392-1161), <http://shcc.ufl.edu>
3. UF Career Connections Center. (Reitz Union, Suite 1300, 352-392-1601), <https://career.ufl.edu/>

Flexibility Clause: Circumstances may arise during the course that may prevent the instructor from fulfilling each and every component of this syllabus; therefore, syllabus should be viewed as a guide and is subject to change. Students will be notified of any changes.

Tentative Course Outline:

Detailed course schedules are shown below. Please note that this represents current plans. As we go through the semester, these plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

Module 1 – Course Introduction and Overview (wk 1)

Module 2 – Quality Control (wk 2)

Module 3 – Pre-requisites (wk 3)

Module 4 – Food Safety Regulations (wk 4)

Module 5 – HACCP (wk 5-6)

Module 6 – FSMA and Preventive Controls (wk 7-10)

Module 7– FSMA Produce Safety (wk 11)

Module 8 – Auditing and Inspection (wk 12)

Module 9 – Other systems (wk 12)

Module 10- Project work and presentation (wk 14-15)

Week (Dates)	Module /Topic	Assignments & Exams
1 (Sep 1, 3)	<ul style="list-style-type: none">Course introduction (Ahn/Goodrich)Food Safety Systems Overview (Ahn)	
2 (Sep 8, 10)	<ul style="list-style-type: none">Quality Control (Guest lecture by Dr. Sims)	
3 (Sep 15, 17)	<ul style="list-style-type: none">Pre-requisites: GMPs and SSOPs (Ahn)	
4 (Sep 22, 24)	<ul style="list-style-type: none">Food Safety Regulations (Ahn)	
5 (Sep 29, Oct 1)	<ul style="list-style-type: none">Exam 1Intro to HACCP (Goodrich)	Exam 1 (Sep 29)
6 (Oct 6, 8)	<ul style="list-style-type: none">HACCP Principles (Goodrich)	
7 (Oct 13, 15)	<ul style="list-style-type: none">FSMA and Food Safety Plan overview (Ahn)FSMA PC – Hazard analysis (Ahn)	
8 (Oct 20, 22)	<ul style="list-style-type: none">FSMA PC – Process Control (Ahn)FSMA PC – Allergen & Sanitation Control (Ahn)	
9 (Oct 27, 29)	<ul style="list-style-type: none">FSMA PC – Supply Chain Control & Verification (Ahn)FSMA PC – Food Safety Plan Review & Project Introduction (Ahn/Goodrich)	Oct 29: Final Project Assignment posted (Due Dec 8)

<p>10 (Nov 3, 5)</p>	<ul style="list-style-type: none"> • 6.7. FSMA PC - Recall Plan (Ahn) • Exam 2 	<p>Exam 2 (Nov 5)</p>
<p>11 (Nov 10, 12)</p>	<ul style="list-style-type: none"> • FSMA Produce Safety Rule (TBA) 	
<p>12 (Nov 17, 19)</p>	<ul style="list-style-type: none"> • Auditing and Inspection (Goodrich) • GFSI and other food safety systems (Goodrich) 	
<p>13 (Nov 24)</p>	<ul style="list-style-type: none"> • Exam 3 	<p>Exam 3 (Nov 24)</p>
<p>14/15 (Dec 1, 3, 8)</p>	<ul style="list-style-type: none"> • Final Project Presentation 	<p>Final Project Presentation (Dec 1, 3, 8)</p>