

Food Science and Technology 4410 HACCP

Spring 2021

Online and in-person course

Instructor:

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214 B Howlett Hall

Office hours by appointment, in person or by video conference

Credit Hours:

Pace of online activities: This course is divided into **weekly modules**. The next week's material becomes available at the successful completion of each quiz. Students are expected to participate in the group project but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a **2-credit-hour course**. According to [Ohio State policy](#), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 4 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Prerequisites: Students must have basic knowledge of processing facility operations. Successful completion of FST 2400 meets this requirement, however, students from an engineering background may gain this knowledge from other classes or experiences

Textbooks/Readings: All course material will be provided on Canvas.

It is expected that all material is viewed prior to class time. Class will be used to work on food safety system plans as groups. **It is highly suggested that you bring a computer to work in class on the material.**

Optional Readings: None

Additional Required Materials: None

Other Fees or Requirements: None

Course Description: This course will teach the basics of HACCP and how it fits into food safety systems.

Goals:

Upon successful completion of this course, students will be familiar with the background, and process of creating a HACCP plan and will receive a Certificate of Completion recognized by the International HACCP Alliance. This course material and instructor are accredited by the International HACCP Alliance.

Learning Outcomes:

By the end of this course, students should successfully be able to:

- Understand the relationship of GMPs, SSOPs, the pre-HACCP steps and the seven basic HACCP principles.
- Develop a basic food safety system for a food product of their choice

Course technology

For help with your password, university e-mail, [Carmen](#), or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Baseline technical skills for online courses

- Basic computer and web-browsing skills
- Editing and sharing documents on a platform such as OneNote or Google
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

Optional Technology skills necessary for this specific course

- Zoom text, audio, and video chat

Equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection

Required software

- [Microsoft Office 365](#): All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Full instructions for downloading and installation is found <https://ocio.osu.edu/kb04733>.
- Please make sure to submit all assignments as either an Office file (.doc, .ppt, .xlcs, etc) or Adobe .pdf file.

Carmen Access

You will need to use [BuckeyePass](#) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click "Enter a Passcode" and then click the "Text me new codes" button that appears. This will text you ten passcodes good for 365 days that can each be used once.

- Download the [Duo Mobile application](#) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and the IT support staff will work out a solution with you.

Course Schedule:

Instructional Week	Topics, Assignments, Topic Outcome
1	Information and Course info Syllabus Quiz, Wholesome Food Reflection and Pre-test - Course familiarity; Foundational
2	Pre-Requisites (Flow Charts, Product descriptions and ingredient statements) - Pre-requisite forms for flow chart, product description and ingredient statements Form a foundational knowledge of the product being addressed
3	Good Manufacturing Practices - GMP form with practices for each of the common categories Develops the connection between GMPs and the safety processes needed in food manufacture
4	Sanitation Standard Operating Procedures - SSOP form with equipment checklists Develops the connection between SSOPs and the safety processes needed in food manufacture
5	Hazards and Hazard Analysis - Complete the Hazard Analysis of each step and justify why those are likely or not Critical evaluation of situations and the potential for creating hazardous food
6	Critical Control Points and Critical Decision Making - Determine the steps that are most critical to creating safe food Critical evaluation of likely hazards and how they can be prevented in food manufacture.
7	Critical Limits - Research and set safe processing limits based on scientific information Application of scientific information to a specific process
8	Monitoring - Determine testing methods and effective time frames for in-plant testing Understanding the capabilities of testing procedures and realistic frequencies
9	Corrective Actions - Follow the regulatory guidelines to troubleshoot and prevent a system failure Understand that the previous steps cannot predict all mishaps.
10	Verification - Establish methods that will ensure all monitoring procedures are accurate Evaluation of practical measuring procedures
11	Validation - Research and provide scientific literature to support decisions made in previous steps Understand the connection between a comprehensive safe processing procedure and the scientific literature available.
12	Record keeping - Create the method in which the previous steps will be recorded Understand why a robust record keeping system is necessary
13 and 14	Group presentations - Present the entire HACCP plan to the class Develop skills at presenting scientific information.

Instructor's policy on late or make-up work:

Due dates for most assignments will be at 11:00 pm (Columbus time) on the given due date unless otherwise noted. **ALL** assignments must be submitted through CarmenCanvas. Unless there is an unforeseen catastrophe, I will not accept any work through email. **It is your responsibility to make sure your assignment is submitted properly.**

Evaluation:

- Each step has specific forms and worksheets to be completed. They will be graded for completeness and accuracy based on the specific product the group has chosen to work on. All project assignments are submitted and graded as a group.
- Weekly quizzes are meant to keep each student on track and to ensure that each person is completing the weekly lectures. You must score >8/10 on each quiz to open the following week's material. Each student is given 2 attempts on the quizzes, but if you have not scored high enough, please see me to talk about what you are missing so you can continue to progress.

How your grade is calculated

ASSIGNMENT CATEGORY	POINTS
Material quizzes (online)	75
Product Pre-requisites	75
GMPs	100
SSOPs	75
Hazard Analysis (Form A part 1)	100
Critical Control Points (Form A completed)	50
Critical Limits (Form B part 1)	25
Monitoring and Corrective Actions (Form B)	75
Verification and Validation (Form B part 2)	150
Record forms	75
Group evaluations	100
Final - Food Safety System presentation	100
Total	1000

Grading Scale:

<u>Percentage</u>	<u>Grade</u>	<u>Percentage</u>	<u>Grade</u>
93-100	A	73-76.9	C
90-92.9	A-	70-72.9	C-
87-89.9	B+	67-69.9	D+
83-86.9	B	60-66.9	D
80-82.9	B-	<60	E
77-79.9	C+		

COURSE POLICIES

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.
- **E-mail:** I will reply to e-mails within **24 hours on school days**.

Attendance Policy:

Student participation requirements:

- *Participating in group project forums:*
As participation, each week you should plan to work with your group – in-person or virtually, to complete the week's section. I do not expect that you divide the project so that each person does entire sections. It is a group project and if that is done, the other group members will lose out on the learning experience of those sections.
- *Office hours and live sessions:* **OPTIONAL OR FLEXIBLE**
If you would like to discuss an assignment with me, or feel that you need to talk to me in person rather than email, please contact me initially by email so that we can schedule a mutually amenable time to meet on campus or by Zoom.

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

Writing style:

While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.

Tone and civility:

Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.

Citing your sources:

When we have academic discussions, please cite your sources to back up what you say. (For online sources, include a link.) Remember, an important part of this course is to have science and logic to defend your position, not just “They say” or “I’ve heard.”

Backing up your work:

Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

E-Mail Etiquette:

Professional relationships should be maintained when using e-mail for a class. Below I have included guidelines from Bloomsbury’s guide on email etiquette that you should follow when drafting your e-mail. I will not respond to e-mails that I consider inappropriate. I will respond to appropriate emails in a timely manner, do not expect an immediate reply.

DO

- Include a descriptive statement in the subject line. I teach several classes, please make note that you are taking Food Controversies.
- Use proper salutations when beginning an e-mail.
- Be concise in the body of the e-mail, use complete sentences and proper grammar.
- Use an appropriate closure at the end of each e-mail followed by your first and last name.
- If replying to an e-mail, reference the original e-mail and its content. Note that the Carmen inbox does not automatically attach the previous message the way that many email programs do.
- Be selective of your choice of words. Emotions are difficult to convey in text and without the benefit of facial expressions your sentiment can be lost in the words you choose to write.

DON'T

- Use all capital letters; this conveys a tone of ANGER.
- Use e-mail as a format to criticize other individuals.
- Ask for your grade via e-mail. Grades will not be discussed by e-mail. If you need to discuss a graded item make an appointment to do so in my office or on Zoom
- E-mail to inquire when grades will be posted. I will work toward submitting grades promptly, however, recognize that grading assignments requires considerable time to ensure uniformity and fairness.
- Send an e-mail out of frustration or anger. Learn to save the e-mail as a draft and review at a later time when emotions are not directing the content.

Quizzes and exams:

Quizzes should be taken by yourself without external material.

Written assignments:

Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow the Journal of Food Science style. If you need a reference, please ask me. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.

Reusing past work:

In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.

Falsifying research or results:

All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.

Group projects:

There are no group projects in this course.

UNIVERSITY POLICIES

Academic Misconduct: It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct at <http://studentconduct.osu.edu>.

Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Intellectual Property (covered by copyright) includes Course materials (Text, Audio, Video, Multimedia, Sims, Apps, etc.), and Student Generated materials

Disability Services :

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue. [QM 7.2](#)

Diversity:

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Student Life Disability Services at [614-292-3307](tel:614-292-3307) or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with me.

- [Carmen \(Canvas\) accessibility](#)
- Streaming audio and video
- [Definition OSU](#)
- [Overview of Accessibility at OSU](#)
 - [Adobe Connect \(Carmen Connect\) Accessibility](#) [Adobe Privacy Policy](#)
 - [MediaSite Accessibility Statement](#)
 - [Microsoft Office Accessibility](#) [Microsoft Office 365 Privacy](#)

UNIVERSITY RESOURCES

Counseling and Consultation Services:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkun Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

Title IX:

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu.

Grievances :

According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, take your case to the department chairperson, college dean or associate dean, and to the provost, in that order. Specific procedures are outlined in Faculty Rule 3335-7-23. Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Trigger Warning:

The content of this course is focused on contemporary issues in food. The material provided for you, or the material you find in your own research may be disturbing. If needed, please take care of yourself while watching/reading this material (take a break, debriefing with a friend, contacting a Sexual Violence Support Coordinator at 614-292-1111, or Counseling and Consultation Services at 614-292-5766, and contacting me if needed). Expectations are that we all will be respectful of our classmates while consuming this media and that we will create a safe space for each other. Failure to show respect to each other may result in dismissal from the class.

University Escort Service:

A safe ride is a service provided to university students who would like safe transportation across campus. Any university student, faculty, or staff member may request a safe ride. Hours: 7pm to 3am; phone: 614-292-3322.

Off Campus Field Experiences

You do not need to be on campus for this course, nor is it required that you leave campus for this course. However, you may choose to go somewhere to complete the actions required of the assignments.

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