

Term Information

Effective Term Autumn 2022

General Information

Course Bulletin Listing/Subject Area Food Science & Technology
Fiscal Unit/Academic Org Food Science & Technology - D1156
College/Academic Group Food, Agric & Environ Science
Level/Career Undergraduate
Course Number/Catalog 1200
Course Title The Science of Cooking
Transcript Abbreviation Science of Cooking
Course Description The Science of Cooking covers the scientific method, sanitation and hygiene, weights and measurements, cooking methods, tasting and evaluation, food components, correlations to industrial food processing and preservation, and events, laws, and VIPs in the development of food science and technology as a discipline.
Semester Credit Hours/Units Fixed: 4

Offering Information

Length Of Course 14 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? Yes
Is any section of the course offered Greater or equal to 50% at a distance
Grading Basis Letter Grade
Repeatable No
Course Components Laboratory, Lecture, Recitation
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites None
Exclusions
Electronically Enforced Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 01.1001
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Natural Sciences

Course Details

Course goals or learning objectives/outcomes

- Understand the meaning and importance of using the Scientific Method
- Understand the scientific principles of food preparation in the kitchen
- Understand historical aspects of food processing and technology and their connection to the scope of food laws and regulations

Content Topic List

- The scientific method, credible sources of information
- Sanitation and hygiene, data collection and organization
- Sensory and consumer science; measurements
- Nutrition basics; government agencies and programs; food laws; food packages
- Properties of water; heat transfer, heating and cooling
- Food components: water, carbohydrates, fats, protein
- Meat, poultry, fish; nonmeat protein sources
- Baking; Cereals, rice pasta
- Milk and milk products; fermentation
- Fruits and vegetables
- Beverages
- Flavors, seasonings, spices, herbs
- Industrial food processing, unit operations
- Food preservation

Sought Concurrence

No

Attachments

- 1200 ELO Foundation Submission 10-29.pdf: GE Foundations
(Other Supporting Documentation. Owner: Davis, Molly Jane)
- FDSCTE 1200 Cover Letter_11-17.docx: Cover Letter
(Other Supporting Documentation. Owner: Davis, Molly Jane)
- Distance Approval Cover Sheet Generic lac.docx: Distance Approval Cover Sheet
(Other Supporting Documentation. Owner: Davis, Molly Jane)
- FDSCTE 1200 Science of Cooking AU22_1-21.docx: Syllabus
(Syllabus. Owner: Davis, Molly Jane)

Comments

- Revise as per COAA via email 19 November 2021

Revise as per conversation 17 November 2021 *(by Osborne, Jeanne Marie on 11/22/2021 09:12 AM)*

COURSE REQUEST
1200 - Status: PENDING

Last Updated: Osborne, Jeanne Marie
01/24/2022

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Davis, Molly Jane	11/04/2021 10:11 AM	Submitted for Approval
Approved	Rodriguez-Saona, Luis Enrique	11/04/2021 12:08 PM	Unit Approval
Revision Requested	Osborne, Jeanne Marie	11/17/2021 09:47 AM	College Approval
Submitted	Davis, Molly Jane	11/17/2021 01:54 PM	Submitted for Approval
Approved	Rodriguez-Saona, Luis Enrique	11/17/2021 07:48 PM	Unit Approval
Revision Requested	Osborne, Jeanne Marie	11/22/2021 09:12 AM	College Approval
Submitted	Davis, Molly Jane	01/21/2022 02:57 PM	Submitted for Approval
Approved	Rodriguez-Saona, Luis Enrique	01/21/2022 04:28 PM	Unit Approval
Approved	Osborne, Jeanne Marie	01/24/2022 02:27 PM	College Approval
Pending Approval	Cody, Emily Kathryn Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	01/24/2022 02:27 PM	ASCCAO Approval

The Science of Cooking Syllabus

FDSCTE 1200 Autumn 2022

Course Information

- **Course times and location:**
 - Weekly lecture content equivalent to 2 hours of lecture will be delivered online via the CarmenCanvas site for the course
 - Weekly laboratory exercises that will require approximately 2 hours of time will be delivered online via the CarmenCanvas site for the course (see Required Materials section on p.5 of this syllabus for what will be required)
 - Weekly 2 hour in person laboratory sessions – Room, Day, and Time to be determined
- **Credit hours:** 4 credit hours
- **Mode of delivery:** Hybrid

Instructor

- **Name:** Louise A. Campbell, Ph.D.
- **Email:** Campbell.2127@osu.edu
- **Phone Number:** No office phone! Please use the course email to contact me or contact the FST main office at 614-292-6281.
- **Office location:** 264C Howlett Hall
- **Office hours:** immediately after class, by appointment in person, or by video conference
- **Preferred means of communication:**
 - My preferred method of communication for questions is the CarmenCanvas email communication tool. If you are not yet enrolled in the class and/or do not have access to the CarmenCanvas email communication tool, please reach out to me via email at campbell.2127@osu.edu.
 - My class-wide communications will be posted on the Home Page and sent through the Announcements tool in CarmenCanvas. Please check your



[notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Course Prerequisites

None

Course Description

The Science of Cooking covers the scientific method, sanitation and hygiene, weights and measurements, cooking methods, tasting and evaluation, food components, correlations to industrial food processing and preservation, and events, laws, and very important persons (VIPs) in the development of food science and technology as a discipline.

Topics

Topics for this course include:

- The scientific method, credible sources of information
- Sanitation and hygiene, data collection and organization
- Sensory and consumer science; measurements
- Nutrition basics; government agencies and programs; food laws; food packages
- Properties of water; heat transfer, heating and cooling
- Food components: water, carbohydrates, fats, protein
- Meat, poultry, fish; nonmeat protein sources
- Baking; Cereals, rice pasta
- Milk and milk products; fermentation
- Fruits and vegetables
- Beverages
- Flavors, seasonings, spices, herbs
- Industrial food processing, unit operations
- Food preservation

Course Goals

Through the course topics and the learning activities of this course, students will:

- A. Understand the meaning and importance of using the Scientific Method
- B. Understand the scientific principles of food preparation in the kitchen
- C. Understand historical aspects of food processing and technology and their connection to the scope of food laws and regulations

Course Learning Outcomes

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



- A1 Use the Scientific Method appropriately (Make observation; formulate hypothesis; conduct experiment to test hypothesis; collect and analyze data; draw conclusion)
- A2 Demonstrate accurate and appropriate methods of data collection, analysis, and presentation
- A3 Draw appropriate conclusions based on data analysis
- A4 Apply the Scientific Method to evaluation of food products
- B5 Understand the properties of food ingredients and their interactions in food preparation
- B6 Understand different cooking methods
- B7 Recognize similarities between preparation of food in the home and in the factory
- C8 Identify key discoveries/ developments/ figures (people) in food processing and technology
- C9 Identify laws and regulations that concern food processing and food ingredients

General Education Expected Learning Outcomes

As part of the Natural Science category of the General Education curriculum, this course is designed to prepare students to be able to do the following:

1. Engage in theoretical and empirical study within the natural sciences, while gaining an appreciation of the modern principles, theories, methods, and modes of inquiry used generally across the natural sciences.
2. Discern the relationship between the theoretical and applied sciences, while appreciating the implications of scientific discoveries and the potential impacts of science and technology.

The GE Learning Objectives that will be assessed in this course include:

- 1.1 Explain basic facts, principles, theories and methods of modern natural sciences; describe and analyze the process of scientific inquiry.
- 1.2 Identify how key events in the development of science contribute to the ongoing and changing nature of scientific knowledge and methods.
- 1.3 Employ the processes of science through exploration, discovery, and collaboration to interact directly with the natural world when feasible, using appropriate tools, models, and analysis of data.
- 2.1 Analyze the inter-dependence and potential impacts of scientific and technological developments.
- 2.2 Evaluate social and ethical implications of natural scientific discoveries.
- 2.3 Critically evaluate and responsibly use information from the natural sciences.

Through this course, students will fulfill these learning outcomes by:



- Examining how the natural sciences apply to food.
- Using the Scientific Method appropriately when participating in laboratory activities
- Understanding the properties of food components and their interaction in food preparation, including effects of cooking methods on those components
- Recognizing similarities between preparation of food in the home and in the factory
- Identifying key discoveries and developments in food processing and technology
- Identifying laws and regulations that concern food processing and food ingredients.



How This Course Works

Mode of delivery: This course is hybrid. Lecture and one laboratory portion of the course will be online; one weekly laboratory session (required attendance) will be in person; room, day(s), and time(s) to be determined.

Pace of activities: This course is made up of two components: Lecture and Lab (online and in person). Delivery of the Lecture material will be online and will be posted in the course modules. Students will need to have access to a kitchen in order to carry out the laboratory work. Instructions on how to carry out Laboratory exercises will be provided in the modules and there will be opportunities for Q&A during the in-person lab sessions. Please be sure to read the lab instructions prior to coming to the in-person lab. It is the student's responsibility to be prepared for each lab. Many labs will require preparation of a worksheet in advance of the lab, data collection during the lab, and summarization of results. Results of the labs will be reviewed and discussed in the in-person lab sessions. Lab worksheets must be submitted by 11:59 pm on the day before in-person lab. Failure to submit on time may mean that you are not admitted to the in-person lab session and you may not be eligible to complete the assignment associated with the upcoming lab.

Credit hours and work expectations: FDSCTE 1200 is a **4-credit-hour course**. University policy states that *“Every 1 credit hour assigned to the class equates to total of 3 hours of work per week for a “C” grade (1 hour of instruction and 2 additional study hours per week). Therefore a 4-credit hour course during a 16-week term should have 4 hours of instruction and 8 hours of homework/study time per week, for the student to earn a C grade.”*

(<https://aaas.osu.edu/faculty-resources/teaching-resources-and-policies/credit-hours-and-class-instruction-time>)

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone's participation:

- **Weekly in-person laboratory sessions:** Because this is a hybrid, in-person and distance-education course, your attendance is based on your online activity and your in-class (Lab) participation. **Attendance and participation in the in-person lab sessions is mandatory.** It is essential that you come prepared to the lab sessions, where you will have an opportunity to ask questions about lab assignments, about specific procedures, to review lab worksheets, to evaluate products made by yourself and your classmates in the lab, and to ask questions about the online course material. You are expected to attend in-person lab sessions, pay attention, and ask questions on any material or instructions that need clarification. We may be evaluating samples in class, or you may be reporting on attributes of samples from your own lab work. You will need to have your device with you, and are welcome to refer to your evaluation comments during the discussions.
- If you are not able to attend your registered in-person lab session, you may be able to attend another section that week; to do so, you must request permission from the instructor as far in advance as possible. Otherwise, you will need to make



arrangements with the instructor as to how you will make up that session's activities in the case of documented illness or emergency. Contact the instructor as soon as possible, and accommodations may be made at the discretion of the instructor.

- **Logging in: AT LEAST TWICE PER WEEK**

You are expected to log in to the course in Carmen every week. During most weeks you will probably log in multiple times. If you have a situation that might cause you to miss a week or more of class, please discuss it with the instructor as soon as possible.

- **Office hours and live sessions:** If you would like to discuss an assignment, or feel that you need to talk in person rather than email, please contact me initially by email so that we can schedule a time to meet on campus or by Zoom.

Tasting and evaluating foods is an essential part of the laboratory experience in this course, and may be conducted or discussed in the in-person lab. Tasting does not mean consuming. You will be trained as to how to perform the evaluations in a consistent and professional manner. *If you have an allergy or other situation that prevents you from safely participating in product tasting, please contact the instructor regarding an alternate activity.*

Course Materials, Fees, and Technologies

Required Materials

- All course text materials, or instructions on how to access them, will be provided on Carmen, in the Laboratory Kit, or in the in-person lab sessions.
- This course does not have a required text. The lecture material and laboratory instructions for each module will be posted on Carmen in either Page or PDF format.
- **You will need to have access to a kitchen.** Minimum kitchen equipment required includes an oven, refrigerator, stove or cooktop (a microwave will not be sufficient), and access to a sink.
- Laboratory Kit to be purchased by the student from Science Interactive. The cost of the kit will not exceed \$100. You will need access to a sink, an oven, a stovetop, and cleaning supplies for your workspace. You will need a whisk or electric mixer, small (1 quart) and medium size cooking pot (4 quarts), skillet, measuring cups for dry ingredients and for liquids, and measuring spoons. You may need to purchase fresh food items, such as yogurt or eggs. Other materials will be provided as needed at in-person lab sessions.

Recommended/Optional Material

- *Culinary Reactions, The Everyday Chemistry of Cooking*, by Simon Quellen Field (2012, Chicago Review Press, Inc.).
- *I'm Just Here for the Food*, Alton Brown (2002, Stewart, Tabori & Chang).



Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection.
- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for [technology and internet access](https://go.osu.edu/student-tech-access) (go.osu.edu/student-tech-access).

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) 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 do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](https://go.osu.edu/add-device) (go.osu.edu/add-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.
- [Install the Duo Mobile application](https://go.osu.edu/install-duo) (go.osu.edu/install-duo) on 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 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Zoom text, audio, and video chat (go.osu.edu/zoom-meetings)
- Ability to take and to insert digital photos into a document
- Use Microsoft Word, Excel, and Power Point effectively
- Recording, editing, and uploading video may be required in certain circumstances



Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu

Grading and Faculty Response

How Your Grade is Calculated

Assignment or Category	% of total
Numbered Assignments	10
Lab worksheets and Lab Reports	30
Unit Quizzes	30
Project Report	15
Project Presentation	15
	100

See [Course Schedule](#) for due dates.

Descriptions of Major Course Assignments

Numbered Assignments

Numbered Assignments will include creating a Word Document, a Power Point slide presentation, and an Excel spreadsheet to demonstrate ability to utilize these tools, which will be used in other components of the course.

Academic integrity and collaboration: All assignments completed in this course must be completed solely by the student and be their own, original work.

Lab Worksheets and Lab Reports

Lab worksheets and lab reports will typically be due at 11:59 pm on the day before in-person lab. Failure to submit on time may mean that you are not admitted to the in-person lab session and you may not be eligible to complete the assignment associated with the upcoming lab.

Reports will be due according to published dates.

Academic integrity and collaboration: You must complete the lab worksheets and lab reports yourself, without any external help or communication. If you are working with others in generating data for a lab exercise, team members must be identified, and the recorded data must be the same for each team member. The remainder of the lab report must be completed by each individual.

Unit Quizzes

Unit quizzes will assess knowledge and comprehension of lecture material. Quizzes are timed. You may be using Proctorio for taking these quizzes. See page 10 of the syllabus for more information on Proctorio.

Academic integrity and collaboration: You must complete the quizzes yourself, without any external help or communication. Tutor assistance or assistance by others (including verbal and written communication) is not permitted to complete quizzes. However, you may refer to your notes and course materials while taking the online quizzes. No outside assistance in the form of electronics (including the Apple watch), notes, or verbal or written communication with others is permitted during a quiz.

Project

There will be one partner project associated with the in-person lab sessions. The project will require both a written report and a presentation to the class. Both partners are expected to contribute to the report and both must participate in the presentation. Group projects can be stressful for students when it comes to dividing work, taking credit, and receiving grades and feedback. I have attempted to make the guidelines found in the Carmen site for this course for group work as clear as possible for this project, but please let me know if you have any questions.

Academic integrity and collaboration: All project work in this course, must be completed solely by the members of each group and be the original work of those students.

Late Assignments

Access to Carmen Assignments, Quizzes, and Lab Worksheets will generally be available for approximately one week before they are due. Some assignments may have even longer lead times. All work must be submitted through CarmenCanvas. Assignment submission pages are typically closed at 11:59 pm on the due date, so that late submissions are not possible. Note the due dates, plan ahead to avoid connectivity issues, and allow adequate time to complete each item. Computer and submission issues (because of trying to submit an hour or two prior to the deadline when the traffic is high) are not valid excuses for missing a submission on time. Unless there is an unforeseen catastrophe with the system that originates

within the University, I will not accept any work through email. **It is your responsibility to make sure your assignment is submitted properly and on time.**

Please refer to the Assignments tab in Carmen for due dates.

Extensions on due dates may be granted for **valid** and **documented** reasons, such as a medical emergency or death in the immediate family. Students should contact the instructor via the Carmen course Inbox within 24 hours of the deadline. It will save us both time if you attach your documentation to your request. In the case of extended illness or injury, accommodations will be made at the discretion of the instructor. **Poor planning and computer problems do NOT qualify as emergencies.** If students have ongoing issues with wireless connections, contact the Help Desk at 614-688-HELP.

Because of its online components, this course is highly dependent on technology. You are responsible for your own tech, which includes your device(s) and your connection.

Instructor 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.)

- **Preferred contact method:** Once you are enrolled in the course, please use the CarmenCanvas email communication tool to be sure that your email receives priority. I will make every attempt to reply to e-mails within 36-48 hours on school days. If you do not receive a reply within 3 school days, please re-send your email – I'm human, and it is possible that an email will be overlooked. I am generally not online weekends/holidays.
- When sending email, please be as clear and concise as possible. Here is a timesaving tip: Before emailing, please make sure the answer to your question isn't already in the Syllabus, Course Guide, Assignment instructions, or on a Discussion Board.

Grading Scale

93–100: A
 90–92.9: A-
 87–89.9: B+
 83–86.9: B
 80–82.9: B-
 77–79.9: C+
 73–76.9: C
 70–72.9: C-
 67–69.9: D+
 60–66.9: D
 Below 60: E

Other Course Policies

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.

Proctorio

Proctorio, an online proctoring tool, may be used during this course. Proctorio offers you flexibility to take your tests at the time and in the location of your choosing. Students are required to have a webcam (USB or internal) with a microphone and a strong and stable internet connection. During the course of an exam, Proctorio will record the testing environment, therefore students should select private spaces for the exam session where disruptions are unlikely and where recording devices can be enabled. Instructions for installing Proctorio use will be provided. To use Proctorio you must be **over 18 years of age**. (Please contact the Instructor if under 18.) Additionally, the tool has **limitations in its accessibility** for students reliant upon screen readers and keyboard navigation. Additional information on academic integrity at Ohio State and [recommended proctoring options](#) is available.

Students will be given the opportunity and encouraged to take a sample practice quiz with Proctorio before an examination for credit is deployed. This will ensure that the entire class, including those with accessibility concerns, will be ready to use Proctorio or have an alternative in place.

E-Mail Etiquette

Professional relationships should be maintained when using e-mail for a class. Below are 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. If you require an immediate response, consider visiting with me in person.

As I teach more than one class, it would speed my response time if you indicate right up front (subject line) that you are in FDSCTE 1200 or mention The Science of Cooking.

DO

- Include a descriptive statement in the subject line.
- 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.
- 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 by Zoom.
- E-mail to inquire when grades will be posted. We will work toward submitting grades promptly, however, recognize that grading assignments and exams 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.

Written assignments: Your written assignments must be your own original work. In formal assignments, you should follow [APA](#) style to cite the ideas and words of your research sources. 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.

Collaboration and informal peer-review: The course includes many opportunities for informal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please feel free to ask ahead of time.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

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](#) (studentconduct.osu.edu), 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:

- [Committee on Academic Misconduct](http://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](http://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](http://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

Copyright for Instructional Materials

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.

Your Mental Health

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 Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292- 5766. CCS is located

on the 4th Floor of the Younkin 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

David Wirt, wirt.9@osu.edu, is the CFAES embedded mental health counselor. He is available for new consultations and to establish routine care. To schedule with David, please call 614-292-5766. Students should mention their affiliation with CFAES when setting up a phone screening.

Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

Diversity

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to

strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

To learn more about diversity, equity, and inclusion and for opportunities to get involved, please visit:

- <https://odi.osu.edu/>
- <https://odi.osu.edu/racial-justice-resources>
- <https://odi.osu.edu/focus-on-racial-justice>
- <http://mcc.osu.edu/>

In addition, this course adheres to **The Principles of Community** adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found at <https://go.osu.edu/principlesofcommunity>. For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (<https://equityandinclusion.cfaes.ohio-state.edu/>). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at <https://equity.osu.edu/>.



Accessibility Accommodations for Students with Disabilities

Requesting Accommodations

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 \(SLDS\)](#). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: [614-292-3307](tel:614-292-3307)
- Website: slds.osu.edu
- Email: slds@osu.edu
- In person: [Baker Hall 098, 113 W. 12th Avenue](#)

Accessibility of Course Technology

This online course requires use of CarmenCanvas (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 as early as possible.

- [CarmenCanvas accessibility](http://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- [CarmenZoom accessibility](http://go.osu.edu/zoom-accessibility) (go.osu.edu/zoom-accessibility)

UNIVERSITY RESOURCES

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: It is not expected that the material in this course would be disturbing. However, if you encounter an issue, please take care of yourself while reading/ watching the course material (take a break, debrief with a friend, contact a Sexual Violence Support Coordinator at 614-292-1111, or Counseling and Consultation Services at 614-292-5766, and contacting the instructor if needed). Expectations are that we all will be respectful of our classmates while consuming these 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.

Lyft Ride Smart at Ohio State: [Lyft Ride Smart at Ohio State](#) offers eligible students discounted rides, inside the university-designated service area, from 9 p.m. to 3 a.m. Each month, 10,000 discounted rides will be made available on a first-come, first-served basis with the average cost expected to be \$2 or less. Prices may be impacted by distance, traffic, time of day, special events and prime time surcharges. To qualify for program discounts, users must select "shared ride" when booking in the Lyft app. When using ride sharing, remember to visually confirm vehicle info/descriptions in the company app and ask the driver to say who they are picking up.

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.

Course Schedule

The topics listed on pages 2 -3 will be divided up into the following five sections:

Refer to the CarmenCanvas course for up-to-date due dates.

Week LO	Lecture Topic	Lab
<u>1</u> A1, A2	Scientific method, Credible information, Peer review process; Food science & technology	Introduction; Sanitation, Good handling practices, Calibration, Laboratory and kitchen safety
<u>2</u> A1, A2, A3, A4, C8	Sensory and consumer science and methods, objective and affective; difference and descriptive testing; hedonic, preference, focus groups; simple statistics	Measurements, dry and wet, volume and weight; Data collection and organization
<u>3</u> A1, A2, A3, A4, C8, C9	Nutrition basics: food choice drivers, RDIs; Government agencies, programs, and regulations; Food laws; Food packages	Sensory, Objective and Subjective, Appropriate tasting protocols, Vocabulary Taste solutions, Mixture solutions, Order of concentration, Textures Taste Water: distilled, mineral, soda, spring, tap from different sources, water that has been boiled, frozen
<u>4</u> A3, B5, B6, B7, C9	Properties of water Heat transfer: heating and cooling	Heat transfer
<u>5</u> A3, A4, B5, B6, B7	Food components: water, carbohydrates	Carbohydrates, simple: nutritive and nonnutritive sweeteners, syrup, caramel, fudge, brittle
<u>6</u> A3, A4, B5, B6, B7	Food components: fats, protein	Carbohydrates, complex: white sauces, starchy foods
<u>7</u> A3, A4, B5, B6, B7	Meat, poultry, fish	Fats, potatoes fried in different oils/ cookies with different fats/ olive oils
<u>8</u> A3, A4, B5, B6, B7	Alternative protein sources, Eggs	Protein: egg white foams, gluten balls, denatured and coagulated samples



<u>9</u> A3, A4, B5, B6, B7	Baking ingredients Cereals, rice, pasta	Leavened products, yeast and chemical Baking: bread, cakes muffins, cookies
<u>10</u> A3, A4, B5, B6, B7	Milk and milk products; fermentation	Dairy products: milk, cheese, yogurt, sour cream, butter, ice cream
<u>11</u> A3, A4, B5, B6, B7	Fruits and Vegetables	Fruits: berries, orchard, tropical, fresh, frozen Vegetables: root, tuber, leafy, fruits
<u>12</u> A3, A4, B5, B6, B7	Beverages	Coffee, Tea
<u>13</u> A3, A4, B5, B6, B7, C8, C9	Flavors, Seasonings, Spices, Herbs	Presentations
<u>14</u> A3, A4, B5, B6, B7, C8, C9	Industrial food processing, Unit operations	Presentations
<u>15</u> A3, A4, B5, B6, B7, C8, C9	Food preservation	Presentations



FDSCTE 1200 – The Science of Cooking

This course is based on a course I took while a student at Wayne State University, which inspired me to pursue a career in Food Science. In The Science of Cooking, students will develop critical life skills that they will use in their daily lives and that could expand into a future career.

The Science of Cooking is modelled in part after FDSCTE 1140, Kitchen Science, in terms of how the course will be taught and the expectation for student participation and success. Kitchen Science is a very successful course with 125+ students registered each semester.

Distance Approval Cover Sheet

For Permanent DL/DH Approval

Course Number and Title: **FDSCTE 1200, The Science of Cooking**

Faculty Preparer Name and Email: **Louise Campbell, Campbell.2127@osu.edu**

Carmen Use

For more on use of Carmen: <https://teaching.resources.osu.edu/teaching-topics/carmen-common-sense-best-practices>

A Carmen site will be created for the course, including a syllabus and gradebook at minimum. **Yes**

If no: **n/a**

Syllabus

Proposed syllabus uses the ODEE distance learning syllabus template (or own college distance learning syllabus template based on ODEE model), includes boilerplate language where required, as well as a clear description of the technical and academic support services offered, and how learners can obtain them. **Yes**

Syllabus is consistent and is easy to understand from the student perspective. **Yes**

Syllabus includes a schedule with dates and/or a description of what constitutes the beginning and end of a week or module. **Yes**

If there are required synchronous sessions, the syllabus clearly states when they will happen and how to access them. Required synchronous sessions will be in person.

Additional comments (optional):
none

Instructor Presence

For more on instructor presence: <https://teaching.resources.osu.edu/teaching-topics/online-instructor-presence>

Students should have opportunities for regular and substantive academic interactions with the course instructor. Some ways to achieve this objective:

- Regular instructor communications with the class via announcements or weekly check-ins
- Instructional content, such as video, audio, or interactive lessons, that is visibly created or mediated by the instructor
- Regular participation in class discussion, such as in Carmen discussions or synchronous sessions

Regular opportunities for students to receive personal instructor feedback on assignments

Please comment on this dimension of the proposed course (or select/explain methods above):
none

Delivery Well-Suited to DL/DH Environment

Technology questions adapted from the [Quality Matters](#) rubric. For information about Ohio State learning technologies: <https://teaching.resources.osu.edu/toolsets>

The tools used in the course support the learning outcomes and competencies. Yes

Course tools promote learner engagement and active learning. Yes

Technologies required in the course are current and readily obtainable. Yes

Links are provided to privacy policies for all external tools required in the course. Yes

Additional technology comments:

The course will mainly use CarmenCanvas to host the course material, and for students to upload completed assignments.

Which components of this course are planned for synchronous delivery and which for asynchronous delivery? (For DH, address what is planned for in-person meetings as well.)

Recitation sessions, which will be in person, will be synchronous. Lecture content will be included in the course modules online. Materials for laboratory exercises will be provided in the course modules, and will be executed asynchronously by students. Laboratory exercises will be previewed in the Recitation sessions, and results of lab work will be shared during the Recitation sessions.

If you believe further explanation would be helpful, please comment on how course activities have been adjusted for distance learning:

none

Workload Estimation

For more information about calculating online instruction time: [ODEE Credit Hour Estimation](#)

Course credit hours align with estimated average weekly time to complete the course successfully. Yes

Course includes direct (equivalent of "in-class") and indirect (equivalent of "out-of-class") instruction at a ratio of about 1:2. Yes

Provide a brief outline of a typical course week, categorizing course activities and estimating the approximate time to complete them or participate:

One week in the course will consist of studying and learning course content on material associated with the topic of that or the next week's laboratory exercise. The amount of time needed for this will vary from student to student, but is anticipated to be the equivalent of two 55-minute lectures, and should require an additional four to six hours of study on the part of the student.

The Recitation sessions are anticipated to be 110 minutes, comparable to a 2-hour lab session. The Recitation sessions will begin with a review and examination of results from the lab work conducted by the students from the previous week's assignment. Most of the Recitation sessions will involve viewing and/or tasting of food products made by students. There will be data collected and shared in the Recitations. Another part of the Recitations will be a brief review of the content material related to the topic, and an opportunity for questions.

Laboratory exercises will be carried out by the students asynchronously. It is anticipated that the exercises will take 1.5 to 2 hours to be carried out.

In the case of course delivery change requests, the course demonstrates comparable rigor in meeting course learning outcomes. **Yes**

Accessibility

For more information or a further conversation, contact the [accessibility coordinator](#) for the College of Arts and Sciences. For tools and training on accessibility: [Digital Accessibility Services](#)

Instructor(s) teaching the course will have taken Digital Accessibility training (starting in 2022) and will ensure all course materials and activities meet requirements for diverse learners, including alternate means of accessing course materials when appropriate. **Yes**

Information is provided about the accessibility of all technologies required in the course. All third-party tools (tools without campus-wide license agreements) have their accessibility statements included. **Yes**

Description of any anticipated accommodation requests and how they have been/will be addressed. Accommodation requests will be addressed on an individual basis and will focus on supporting student success in the course.

Additional comments:
none

Academic Integrity

For more information: <https://go.osu.edu/teaching-resources-academic-integrity>

The course syllabus includes online-specific policies about academic integrity, including specific parameters for each major assignment: **Yes**

Assignments are designed to deter cheating and plagiarism and/or course technologies such as online proctoring or plagiarism check or other strategies are in place to deter cheating: **Yes**

Additional comments:
none

Frequent, Varied Assignments/Assessments

For more information: <https://teaching.resources.osu.edu/teaching-topics/designing-assessments-student>

Student success in online courses is maximized when there are frequent, varied learning activities. Possible approaches:

- Opportunities for students to receive course information through a variety of different sources, including indirect sources, such as textbooks and lectures, and direct sources, such as scholarly resources and field observation
- Variety of assignment formats to provide students with multiple means of demonstrating learning
- Opportunities for students to apply course knowledge and skills to authentic, real-world tasks in assignments

Comment briefly on the frequency and variety of assignment types and assessment approaches used in this course (or select methods above):

The course includes periodic quizzes to cover lecture content, participation in class discussions during the weekly Recitations, the option to work within a group or individually in the weekly lab exercises, writing periodic reports, and the presentation of a group project as means of assessing and for students to demonstrate learning.

Community Building

For more information: <https://teaching.resources.osu.edu/teaching-topics/student-interaction-online>

Students engage more fully in courses when they have an opportunity to interact with their peers and feel they are part of a community of learners. Possible approaches:

- Opportunities for students to interact academically with classmates through regular class discussion or group assignments
- Opportunities for students to interact socially with classmates, such as through video conference sessions or a course Q&A forum
- Attention is paid to other ways to minimize transactional distance (psychological and communicative gaps between students and their peers, instructor, course content, and institution)

Please comment on this dimension of the proposed course (or select methods above):

The hands-on lab exercises are truly the 'heart' of this class. Students will have the opportunity to work in groups or as individuals to carry out the lab exercises. Different students/groups will execute variations on the exercises, and share their results in the Recitation sessions, so that the learning becomes a shared experience.

Transparency and Metacognitive Explanations

For more information: <https://teaching.resources.osu.edu/teaching-topics/supporting-student-learning-your>

Students have successful, meaningful experiences when they understand how the components of a course connect together, when they have guidance on how to study, and when they are encouraged to take ownership of their learning. Possible approaches:

- Instructor explanations about the learning goals and overall design or organization of the course
- Context or rationale to explain the purpose and relevance of major tasks and assignments
- Guidance or resources for ancillary skills necessary to complete assignments, such as conducting library research or using technology tools

- Opportunities for students to take ownership or leadership in their learning, such as by choosing topics of interest for an assignment or leading a group discussion or meeting
- Opportunities for students to reflect on their learning process, including their goals, study strategies, and progress
- Opportunities for students to provide feedback on the course

Please comment on this dimension of the proposed course (or select methods above):

none

Additional Considerations

Comment on any other aspects of the online delivery not addressed above:

none