

Food Science and Technology 1150 Caffeine Science

Spring 2021

Fully Online 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 **6 modules** that are released at the beginning of the semester. Each section has a deadline to prevent you from waiting until the end of the semester to complete the entire course. However, you are welcome to work ahead as you like. I encourage you to complete the assignments throughout the section rather than waiting to do it at the due date.

Credit hours and work expectations: This is a **1-credit-hour course**. According to [Ohio State policy](#), students should expect around 1 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Prerequisites: There are no prerequisites for this course

Textbooks/Readings: All course material will be provided

Optional Readings: None

Additional Required Materials: You will be expected to perform 2 activities for the assignments that require some supplies.

Coffee cupping:

- 1 tablespoon each of 3 different coffees of your choice. (If you are not a coffee drinker, often coffee shops will give you that small amount for free.)
- 3 small cups (These can be anything from bowls to mugs to disposable. It helps if they are the same size and only hold 6 ounces, but anything that will hold hot water works)
- 2 spoons
- A method to heat water to near boiling.

Tea Ceremony:

You will be selecting a tea ceremony or ritual to act out. I do not expect that you have authentic utensils or dishes, however I do expect that you physically **create the** tea ceremony. Even if you must print a picture of a tea pot or put a label on a napkin holder, using what you have is fine, but I want you to do the tea ceremony.

Other Fees or Requirements: none

Course Description:

Exploration of the science of caffeine and production of caffeinated products, how it affects the human body along with a study of the historical importance of some of today's most popular caffeine sources.

Goals:

After taking this course, students will understand the physical impact of caffeine, the historical significance of natural products that contain caffeine and recognize the current day issues that surround caffeinated products today.

Learning Outcomes:

Course Learning Outcomes

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

1. Understand the science of caffeine and how it affects the human body.
2. Recognize the historical importance of some of today's most popular caffeine sources
3. Become familiar with the food processing techniques that are utilized in today's manufacturing of caffeinated (and decaffeinated) products.
4. Understand current controversies surrounding caffeine and make an educated opinion on such topics

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
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

Technology skills necessary for this specific course

- Ability to take and insert digital pictures into a document OR
- Recording, editing, and uploading video

Required equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed and tested; OR other digital camera

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>.

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, Deadlines, Events, Topic Outcome	
1-3	Syllabus Quiz – due ASAP to show foundational knowledge of course structure. Must complete to open course material	
	What is Caffeine? Chemistry Where is it found?	Section 1 Quiz There's Caffeine in my.... Understanding the science of caffeine
4-5	Physical Effects Humans Animals	Section 2 Quiz Caffeine Consumption Understanding how caffeine affects the body
6-7	Coffee History and Agriculture Current processing methods	Section 3 Quiz Coffee Cupping Recognizing the historical importance of coffee and modern processing techniques

8-9	Tea History and Agriculture Current processing methods	Section 4 Quiz Tea time Recognizing the historical importance of tea and modern processing techniques
10-11	Other natural sources Chocolate Guarana Maté	Section 5 Quiz Different cultures Recognizing the historical importance of other natural products
12-13	Added Caffeine products	Section 6 Quiz Caffeine then and now Becoming familiar with processing techniques
14	Student Research	Caffeine Controversies Become familiar with current controversies surrounding caffeine

Instructor's policy on late or make work:

Due dates for assignments will be Mondays at 1:00 pm (Columbus time) unless otherwise noted. **ALL** assignments must be submitted through Canvas. Unless there is an unforeseen catastrophe with the system, I will not accept any work through email. **It is your responsibility to make sure your assignment is submitted properly.**

The Canvas system is set to insert a 0 into your grade at the deadline if your assignment is missing. When the assignment is graded that will be removed, but a 25% point deduction will be levied at the deadline and will compound for each 24 hours late. **At 72 hours past the deadline, the deduction is 100%, therefore, past that point, no late work will be graded.**

Only emergencies will be considered on an individual basis - hospitalization, or death in the family are good examples. Travel for work or school, and your common cold will not be excused. **Documentation of the emergency will need to be presented for consideration of accepting late work.**

Evaluation:

Quizzes: There will be a quiz you need to complete at the end of each section. You will be given 15 minutes, and each will be worth 25 points. You may take the quiz any time prior to the due date on the syllabus which coincides with the activity deadline for each section. These will be evaluated for accuracy.

[There's caffeine in my...](#):Caffeine is in a lot of different products. Choose 15 foods (not the typical drinks you expect it in), medicines or supplements (like pre-workouts) that contain caffeine. Using the label or internet searches report how much caffeine is in a serving or amount commonly consumed (For instance, a Grande "fluffy" drink is more than a serving size, but most consume the entire thing). Create a chart or table with the following information: Product

name, Serving or consumption size, caffeine content, and the calculated mg caffeine/ounce. This will be graded for completion and reasonably accurate information.

Caffeine consumption: This assignment will take 7 days - **plan ahead!** Track your caffeine consumption for 5 days. Write each thing that you consume with caffeine and how much in a spreadsheet. Remember to include things like medicines, supplements, and foods like chocolate. **Calculate your average daily consumption** by totaling all of the caffeine for those 5 days and divide by 5. Record how you feel if you have more caffeine than usual or less than usual. For the last 2 days of the activity (it does not have to be consecutive to the 5 days you tracked consumption) try to avoid all caffeine. Record how you feel - what are the positive or negative changes. Submit your spreadsheet with calculations and reflections. Your reflections can be written, or you may upload audio or video. Evaluation will be for completeness.

Coffee Cupping: Watch the YouTube video and use the sensory attributes chart in the module to perform a coffee cupping of any 3 coffees of your choice. If you don't have a coffee grinder, it's fine to purchase already ground coffee.

You should submit either a video of your cupping experiment with your reflection on the aromas and flavors OR a picture of the cups of coffee and spend grounds with your name and date on a card and a written reflection of the coffee aromas and flavors. Evaluation will be for completion according to directions.

Tea time: Tea has played an important role in ceremonies throughout history. Many cultures have rituals that incorporate tea or center around it. This assignment is to **enact** a tea ceremony, whether that is one from the Asian cultures or High Tea in England, or any other around the world. You should submit either a video of your tea ceremony explaining what role and how tea is important or a picture of the ceremony and a written explanation of it. The submission will be evaluated for completion according to the directions.

Different cultures: Write or record an entry for a blog or vlog about witnessing a ceremony or custom connected with a **natural** source of caffeine (or other methylxanthine) **other than coffee or tea**(matcha and chai are still tea (Camellia sinensis); Mate is different and fine to use) **as if you had been teleported to witness this first hand**. Review the social implications of consumption (only the rich, only the poor, if one refuses in a social setting). Was it considered medicinal, or simply nutritional? Submit either a video (5-8 minutes) or a written report (2-3 pages). With either submission you should make sure to reference your sources. Evaluation will be on accuracy, and correct completion.

Caffeine then and now: You, a 21st century college student can travel back in time to anywhere in the world. Write or record a travel log entry about how are caffeine and caffeinated products viewed at that time and place compared to today. **Again this is a first person narrative as if you actually experienced this time travel!** This can be very broad - and compare today's caffeine consumption (of all/many products) to those in history, or it can be focused on one particular product and how the use/consumption of it has changed over time. Think about the social stigmas attached to certain products, who commonly consumes them? How does cost play into the view of the product(s)? Submit either a video (5-8 minutes) or a written report (2-3 pages). With either submission you should make sure to reference your sources. Evaluation will be on accuracy, and correct completion.

Caffeine Controversies: There are many sides to caffeine consumption. For some it is a positive maybe even cultural or ritualistic experience. For others, overuse can result in adverse health effects or dependence. Investigate this controversy and form an opinion on it. You might choose to narrow your investigation to one issue like caffeine in alcoholic beverages, or sale of pure caffeine powder. Or you can consider caffeine consumption in general - looking at the role it plays in society. Submit either a video (5-8 minutes) or a written report (2-3 pages). With either submission you should make sure to reference your sources. Evaluation will be on accuracy, and correct completion.

How your grade is calculated

ASSIGNMENT CATEGORY	POINTS
Syllabus Quiz	25
Section Quizzes (6 total – 25 points each)	150
Section Activities	
There's Caffeine in my...	75
Caffeine Consumption	100
Coffee Cupping	100
Tea Time	100
Different Cultures	75
Caffeine Then and Now	75
Caffeine Controversies	150
Total	850

See course schedule below for due dates.

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 **7-14 days**.

- **E-mail:** I will reply to e-mails within **24 hours on school days**.

Attendance Policy:

Because this is a distance-education course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- *Logging in:*
Since this course is designed to allow you to go at your own pace, there is not a requirement for you to log in on a regular basis. **There are deadlines throughout** to prevent you from trying to complete the course in the last week, but it is entirely possible to complete the course very early in the semester.
- *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 the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)

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. If you require an immediate response, consider visiting with me in person.

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.

Quizzes and exams:

You must complete the quizzes yourself. The time is limited, to prevent your complete reliance on notes, but short of an external service, I cannot prevent that. I do expect that you will complete them independently.

Written assignments:

Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow [MLA](#), [APA](#) or other recognized 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.

Group projects:

There are no group projects in this course. However, if you are taking this course with a friend, you are welcome to work together on the activities. You each must submit your own pictures and written work.

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.

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.

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://studentlife.osu.edu/bias/report-a-bias-incident.aspx>.

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 your instructor.

- [Carmen \(Canvas\) accessibility](#)
- Streaming audio and video
- Synchronous course tools
- [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 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.

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:

I do not expect that the material in this course would be disturbing – is it caffeine and caffeine containing products. However, if you encounter an issue, 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).

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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