FOS6936 Topics in Food Science: Flavor Chemistry Seminar

Fall 2024

Monday Period 6 (12:50 PM - 1:40 PM) Via Zoom

Meeting ID: 917 5443 8588

https://ufl.zoom.us/j/91754438588

1 Credit Hour

Instructor:
Dr. Yu Wang
Office: Room 25, Bldg. 7124, 700 Experiment Station Rd. Citrus Research and Education Center, Lake Alfred, FL.
E-mail: yu.wang@ufl.edu (A delayed response may happen during travels)
Phone: 863-956-8673

You could also email the Flavor Team for a quick response
Dongjoo Kim: dongjookim@ufl.edu
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Course Description:

This course provides an in-depth exploration of flavor creation, analysis and perception guiding students from fundamental principles to advanced applications in flavor, food and beverage industries.

Course Communications:

Communication is important to all of us. For email communication, use of the Canvas email is probably the better choice because the instructor's regular email box is often overflowing. In Canvas, it is easy to email both the instructor and the TA at the same time. The best method for resolving technical issues is to visit the helpdesk website or call 352-392-4357. Please make sure that you have Canvas notifications active in order to receive all course communication.

Leaning Objectives

LO1: Understand fundamental knowledge of Flavor Chemistry including the basic chemistry of the Maillard reaction and the principles of biosynthetic flavor production

LO2: Learn basic Flavor Analysis techniques and their applications

LO3: Understand flavor perception and modulation

LO4: Gain insight into the flavor industry and its application

Office Hours:

Office hours are to be by appointment only. Please email or Canvas message the TA's or the professor to schedule a zoom meeting with you.

Prerequisites:

CHM2211

Required Leaning Materials:

Internal reading and scientific papers, make sure you know how to use SciFINDER to search for relevant scientific papers. Some scientific journals you might use a lot are Food Chemistry, Food Chemistry X and Journal of Agricultural and Food Chemistry

Course Policies:

Grading Policy:

PERCENTAGE & POINTS	
Section	
Lecture Attendance	30%
Discussion Participation	30%
Term Paper	30%
Peer review	10%

Grading scale:
A=90-100
B+ = 87-89
B=80-86
C+=77-79
C=70-76
D+=67-69
D=60-66

There will be no curve in this course. Final grades will be calculated from the total accumulated points.

For information on current UF policies for assigning grade points, see the web page: catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/.

Attendance Policy:

All the lectures and discussion are delivered 100% online via Canvas and Zoom. We will organize one field trip to a flavor company, for which we will meet in person. Attendance for lectures is MANDATORY. While the field trip is NOT mandatory, it is greatly encouraged due to the opportunity to visit and get real world exposure to food

companies. Points from your participation grade will be deducted for each seminar or discussion missed without an excused absence or prior approval from the instructors.

Assignment Policy:

The Discussion Board questions are required assignments with specific due dates listed in the syllabus and the assignment page. You must post to the Discussion Board your original answer and responses to other students. You will not need to post your answers to the assignment page, only to the Discussion Board.

Recording Policy:

Due to the industry nature of the course, some lectures will NOT be recorded and recording will not be allowed. However, some of the lectures will not have an industry component. In these cases, our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Late Policy:

Due to the course's nature, late work will not be accepted.

Citation Policy:

All discussion posts and responses will need at least one original reference. Please submit all citations using the same format of American Chemical Society Publications. More information can be found here https://pubs.acs.org/doi/full/10.1021/acsguide.40303.

Example for journal article:
Foster, J. C.; Varlas, S.; Couturaud, B.; Coe, J.; O'Reilly, R. K. Getting into Shape: Reflections on a New Generation of Cylindrical Nanostructures' Self-Assembly Using Polymer Building Block. *J. Am. Chem. Soc.* **2019**, *141* (7), 2742−2753. DOI: 10.1021/jacs.8b08648

AI Policy:

We may use artificial intelligence (AI) tools and applications (such as ChatGPT, DALL-E, etc.) in some circumstances in this course as they support the course learning objectives. The specifics of when, where and how these tools are permitted will be included with each assignment, along with guidance for attribution. Any use of these tools other than where indicated is a violation of this course's expectations and will be addressed through UF's academic misconduct policy.

For this class, we understand the emergence of generative AI as an important tool. We want our students to be well-versed in both its applications and limitations. To that end, we encourage students to use generative AI when applicable. That being said, there are major caveats to this, and they are laid out below.

Unacceptable Uses of AI Tools

1. **Plagiarism**

Plagiarism is the act of presenting someone else's work or ideas as your own. In the context of using AI tools, this includes:

- Submitting AI-generated content without attribution: Any text, ideas, or research generated by AI tools must be properly credited. Failing to acknowledge the use of AI in producing content constitutes plagiarism.
- Copying AI-generated responses verbatim: Simply copying and pasting AI-generated text into your assignments without modification or proper citation is not acceptable.

Example: If a student uses an AI tool to generate a paragraph on the impact of climate change and includes it in their essay without stating that the AI tool helped generate the text, this would be considered plagiarism.

How to avoid: Cite your sources clearly! Make sure that you are properly citing information and acknowledge which sections have been added due to AI.

2. **Lack of Originality**

While AI tools can assist in the brainstorming and drafting process, it is essential that the student's own voice, analysis, and critical thinking are evident in the final submission. Unacceptable practices include:

- Over-reliance on AI: Using AI-generated content as a major portion of the assignment, such that it overshadows the student's own work.
- Minimal effort to personalize or critically engage with AI-generated content: Submitting work that appears to be largely unedited from its original AI-generated form.

Example: If a student uses AI to generate several paragraphs of an essay and makes only superficial changes before submitting it, this would indicate a lack of originality and critical engagement.

How to avoid: Copying and pasting generative AI responses and citing them is NOT acceptable. However, using AI as a guide or for spell-checking is perfectly fine. Having generative AI edit your work is acceptable, but submitting largely unedited AI-generated work is unacceptable.

3. **Misrepresentation**

Misrepresentation involves giving a false impression about the origin of the content in your assignments. This includes:

- Falsely attributing AI-generated content to human authors or sources: Citing an AI tool as if it were a human author or claiming that AI-generated ideas are entirely one's own without proper acknowledgment.
- Deceptive use of AI to fabricate sources or data: Creating fake references or data using AI and presenting them as legitimate.

Example: If a student uses an AI tool to create fictitious quotes or data and attributes them to non-existent sources, this would be considered misrepresentation.

How to avoid: Don't use generative AI to make up information. Many generative AIs available to the public will do what they can to give the user a positive response, so make sure that the information being presented is true.

Online Course Evaluation Process:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at: https://gatorevals.aa.ufl.edu/public-results/.

Academic Honesty:

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code.

Lecture Topics and Critical Dates			
Dates	Topic	Speaker	Critical Dates
26-Aug	Class Introduction and Preparation	Dr. Yu Wang University of Florida	#1 Discussion Topic release @ 8/26 6pm ET close @ 8/30 6pm ET
2-Sep	No class (Labor Day)		
9-Sep	Maillard reaction: basic chemistry, industry application and safety".	Dr. Chi-Tang Ho Rutgers, the state University of New Jersey	#2 Discussion Topic release @ 9/9 6pm ET close @ 9/13 6pm ET
16-Sep	Flavor Analysis - from Decoding Molecular Signatures to Creating Tasty Foods	Dr. Thomas Kauz Symrise	#3 Discussion Topic release @ 9/16 6pm ET close @ 9/20 6pm ET
23-Sep	Flavor Science in Pet Food	Dr. Sophia Feng Mars. Pet	#4 Discussion Topic release @ 9/23 6pm ET close @ 9/27 6pm ET
30-Sep	Regulations of Flavorings	Dr. Matthias Guentert Virginia Dare	#5 Discussion Topic release @ 9/30 6pm ET close @ 10/4 6pm ET
7-Oct	The Biology of Flavor Perception	Dr. Steven Munger University of Virginia	#6 Discussion Topic release @ 10/7 6pm ET close @ 10/11 6pm ET
14-Oct	Flavor Creation for Food and Beverages	Dr. Xiaogen Yang Coca- Cola	#7 Discussion Topic release @ 10/14 6pm ET close @ 10/18 6pm ET
21-Oct	Neuroscience for taste modulation	Dr. Alex Woo W2O Food Innovation	#8 Discussion Topic release @ 10/21 6pm ET close @ 10/25 6pm ET
28-Oct	Breeding and genetics to improve citrus flavor	Dr. Fred Gmitter University of Florida	#9 Discussion Topic release @ 10/28 6pm ET close @ 11/1 6pm ET
4-Nov	Flavorist and Flavor Industry	Dr. Yuangang Zhang Givaudan	#10 Discussion Topic release @ 11/4 6pm ET close @ 11/8 6pm ET
11-Nov	Field Trip (Nov 7 or 8); No Class on 11/11	Treatt	
18-Nov	Movie day		
25-Nov	No Class		Term paper due (Fri. 11/29 6pm ET)
2-Dec	No Class		Peer review due (Fri. 12/6 6pm ET)

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities:

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, https://disability.ufl.edu/

Campus Helping Resources:

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

• University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Wellness Coaching

• U Matter We Care, www.umatter.ufl.edu/

• Career Connections Center, First Floor JWRU, 392-1601, https://career.ufl.edu/.

• Student Success Initiative, http://studentsuccess.ufl.edu.

Student Complaints:

• Residential Course: https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/.

• Online Course: https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint