UNIVERSITY OF OREGON | Global Education Oregon

SYLLABUS

FOOD, SCIENCE AND SUSTAINABILITY
Instructor: Suzanne Wetzel
Language of Instruction: English
UO Credits: 5
Contact Hours: 45
THSE in all course activities: 150
Level: 300
SIENA, ITALY

COURSE DESCRIPTION

What are the basic elements that comprise all foods and what are the fundamental food processing techniques? What is biodiversity and what does it mean for our food system? What role do different production methods and consumer diets play in a future marked by climate change? How can we analyze the sensory qualities of food products, and how do these qualities affect consumer preferences?

These are some of the questions we will address in taking an interdisciplinary approach to some of the more scientific and technical aspects of food studies, with a special focus on Italian products such as extra virgin olive oil and cheese. What aspects of Italian sustainability strategies can be adopted or applied elsewhere?

COURSE OBJECTIVES

Students who successfully complete this course will:

- Acquire basic knowledge of several scientific and technical aspects of the food system, from production to transformation to consumption
- Enhance critical thinking skills as applied to current topics relating to food science, including climate change, biodiversity, and food production technology.
- Develop skills in sensory analysis and in communicating the organoleptic properties of food and beverage products.

INSTRUCTIONAL METHODOLOGY

Through in-class lectures, field trips, hands-on demonstrations, activities, and the reading of articles, studies, and academic texts, students will learn to think critically and holistically about the more technical aspects of food systems from farm to table. During class discussions we will explore a range of issues related to food production and consumption, and students will be encouraged to express their informed opinions on complex topics. Students are expected to actively and attentively participate in tastings and sensory analysis exercises, as well as demonstrate understanding and synthesis of class themes by contributing to discussions and giving presentations.

Lessons will be seminar-style, and therefore a dynamic class environment will depend on the active participation of all students.

METHOD OF EVALUATION (GRADING)
Students will be evaluated according to:

- Attendance and Class participation (includes quizzes, homework, writing exercises and field trip worksheets): 20%
- Sensory Profile Project and Presentation: 20%
- Sensory Analysis Project and Presentation: 20%
- Midterm exam: 20%
- Final exam: 20%

COURSE OUTLINE
We will address the following topics:

- What are the basic building blocks of food? What are the most basic ways of transforming "raw materials" into "food"? (*On Food and Cooking*, *Salt, Fat, Acid, Heat*)

- What are important Italian food products, and how are they produced? Which specific production steps influence the foods' organoleptic properties, and how? What tasting techniques can we use to evaluate these organoleptic characteristics? (*On Food and Cooking)*

- What is sensory analysis? How do we use it to evaluate food products? How do we communicate our conclusions to others? How do these findings relate to consumer preferences and food marketing? (*On Food and Cooking*)

- What role do food production, transformation, transportation, and consumption play in climate change? What practices contribute to this phenomenon and what practices help in the fight against it? How do we evaluate "sustainability" in food systems? (*Environment and Food*)

- What is biodiversity? How have globalization and industrialization affected biological diversity and therefore taste/cultural diversity? (*Environment and Food*)

COURSE READINGS
McGee, Howard. *On Food and Cooking: The Science and Lore of the Kitchen*. New York: Scribner. 2004. pp. 19-21, 51-62, 142-145, 173-177, 270-275, 339-341, 521- 525, 571- 576, 777- 809

Khullar, Dhruv. "Still Processing: Why is the American Diet So Deadly?" The New Yorker. Jan. 6, 2025. Accessible at: https://www.newyorker.com/magazine/2025/01/13/why-is-the-american-diet-so-deadly

Nosrat, Samin. *Salt, Fat, Acid, Heat: Mastering the Elements of Good Cooking*. Illustrated by Wendy MacNaughton. New York: Simon & Schuster. 2017. pp. 17-37, 57- 71, 134-153,

Sage, Colin. *Environment and Food.* New York: Routledge. 2012. pp. 32- 208, 250- 265

Students will be provided with additional materials such as online video presentations, journal articles, online newspapers, etc.

Academic Misconduct
The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at researchguideos.uoregon.edu/citing-plagiarism

Generative AI Course Policy
Students may not use GenAI tools in this course to produce course materials or assignments in whole or in part. All work you submit for this course toward completion of course requirements must be your own original work done specifically for this course and without substantive assistance from others, including GenAI. Work you've completed for previous courses or are developing for other courses this term also should not be submitted for this course. In accordance with UO policy, if I believe you've handed in work created all or in part by GenAI, I will submit a report of suspected academic misconduct to the Office of Student Conduct and Community Standards for that office to make a determination of responsibility. If you have any questions or doubts, please ask!

Accessible Education
The University of Oregon and I are dedicated to fostering inclusive learning environments for all students and welcomes students with disabilities into all of the University's educational programs. The Accessible Education Center (AEC) assists students with disabilities in reducing campus-wide and classroom-related barriers. If you have or think you have a disability and experience academic barriers, please contact the AEC to discuss appropriate accommodations or support. Visit 360 Oregon Hall or aec.uoregon.edu for more information. You can contact AEC at 541-346-1155 or via email at uoaec@uoregon.edu.

Pregnancy Modifications.
Pregnant and parenting students are eligible for academic and work modifications related to pregnancy, childbirth, loss of pregnancy, termination of pregnancy, lactation, and related medical conditions. To request pregnancy-related modifications, students should complete the Request for Pregnancy Modifications form on the OICRC website. OICRC coordinates academic and other modifications for pregnant and parenting students to ensure students can continue to access their education and university programs and activities.