SCIENCE OF FERMENTED FOOD AND BEVERAGES, CERTIFICATE

Admissions to the Science of Fermented Food and Beverages, Certificate have been suspended as of fall 2022 and will be discontinued as of fall 2025. If you have any questions, please contact the department.

The purpose of this certificate program is to provide undergraduates at UW–Madison with an opportunity to gain unique knowledge and skill sets specific to the fermented food and beverage industries. Students that successfully complete this program will graduate with a competitive edge and leadership potential specific to career opportunities in this unique and growing field.

HOW TO GET IN

Admissions to the Science of Fermented Food and Beverages, Certificate have been suspended as of fall 2022 and will be discontinued as of fall 2025. If you have any questions, please contact the department.

This certificate is open to all degree-seeking undergraduate students. Students must be over the age of 21 by the time they take the lab requirements (FOOD SCI 551 Food Fermentation Laboratory or FOOD SCI 552). For more information, or to declare the certificate, contact Rich Hartel (rwhartel@wisc.edu). Students are strongly encouraged to declare the certificate early in their academic career to ensure timely completion of certificate requirements.

REQUIREMENTS

Code	Title	Credits
FOOD SCI 410	Food Chemistry	3
FOOD SCI 550	Fermented Foods and Beverages	2
FOOD SCI 551 or FOOD SCI 552	Food Fermentation Laboratory	1
MICROBIO/ FOOD SCI 325	Food Microbiology	3
MICROBIO 450	Diversity, Ecology and Evolution of Microorganisms	3
MICROBIO 526	Physiology of Microorganisms	3
MARKETNG 300	Marketing Management	3
Total Credits		**18**

CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

LEARNING OUTCOMES

1. Identify and describe how microbial and chemical features of ingredients and raw materials influence the quality and functionality of fermented foods and beverages.
2. Explain the compositional features of ingredients and raw materials specific to various fermented foods and beverages.
3. Identify and describe the operational units and transformational processes unique to the production of fermented foods and beverages.
4. Design and produce fermented foods and/or beverages that meet specified standards for styles or varieties.
5. Measure and interpret analytics to assess quality and correct defects.
6. Describe the concept of branding and its impact on marketing fermented foods and beverages.

ADVISING AND CAREERS

For more information or to declare the certificate in the science of fermented food and beverages, contact:

Richard W. Hartel
rwhartel@wisc.edu (mltheis@wisc.edu)
608-263-1965
A13 Babcock Hall
1605 Linden Dr, Madison, WI 53706

PEOPLE

Nick Smith, Ecologist and Instructor
Victor Ujor, Assistant Professor, Food Science

Advisor: Richard W. Hartel

WISCONSIN EXPERIENCE

The experiences offered through this certificate provide students with a number of opportunities to fulfill the Wisconsin Experience. In addition to 18 credits of rigorous course work with a focus on the science of fermentation, students work directly with local brewers, winemakers and bakers where they can explore innovations in product development, apply their knowledge and help local industries solve problems specific to their craft. Engagement allows for intellectual growth as well as an appreciation for the influence of local culture and values on what makes for "good" food and beverages.

Our industry and campus partners celebrate curiosity and exploration by allowing students to experiment with novel ingredients such as wild yeast, winter hardy grapes and local hops. Most exciting of all, students find that they can make a direct contribution to food and beverage products that are launched into the Wisconsin marketplace.