Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Lebensmittelmikrobiologie und Hygiene
Code der Lehrveranstaltung	40409
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	AGRI-08/A
Sprache	Italienisch
Studiengang	Bachelor in Gastronomie und Önologie in Bergregionen
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Prof. Raffaella Di Cagno, Raffaella.DiCagno@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/37608
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Erstes Semester
Studienjahr/e	2nd
KP	6
Vorlesungsstunden	36
Laboratoriumsstunden	24
Stunden für individuelles Studium	90
Vorgesehene Sprechzeiten	18
Inhaltsangabe	- Introduction to food microbiology. - Biology of microorganisms - Ecophysiology of food related microorganisms - Control of food microorganisms. - Hygiene and application standards for the prevention of foodborne infections. - Microorganisms and metabolites as indicators of quality and

	microbial fermentation. - Introduction to fermented foods - Food pathogens.
Themen der Lehrveranstaltung	Introduction to food microbiology. Spoilage, pathogenic, and beneficial microorganisms. Biology of microorganisms: structure of prokaryotic and eukaryotic cells, cell membrane, cell wall, transport mechanisms, spore differentiation. Ecophysiology of food-related microorganisms: intrinsic, extrinsic, and implicit factors of food that influence microbial growth. Control of food microorganisms. Direct and indirect methods for determining food-related microorganisms. Hygienic and practical guidelines for preventing foodborne illnesses: purchasing raw materials and food, food storage, cooked food and the use of uneaten food, refrigeration and freezing, effects of freezing and thawing, food expiration dates, food preparation and cooking (e.g., boiling, steaming), kitchen hygiene (cleaning work surfaces). Microorganisms and metabolites as indicators of quality and microbial fermentations. Food microorganisms: meat and poultry, eggs, fish, milk and dairy products, fruits and vegetables. Introduction to fermented foods: for example, yogurt, cheese, leavened baked goods, sauerkraut, and other examples of traditional fermented foods. Pathogenic microorganisms and toxic substances associated with food.
Stichwörter	Biology of microorganisms, control of food microorganisms, foodborne infections, food pathogens.
Empfohlene Voraussetzungen	
Propädeutische Lehrveranstaltungen	None
Unterrichtsform	lectures, laboratory activities, field visits to companies in the food sector, in person teaching
Anwesenheitspflicht	No
Spezifische Bildungsziele	The course is part of the learning area of the core teachings of the

und erwartete Lernergebnisse	degree program, specifically in the field of food microbiology and hygiene. The course provides students with both knowledge of the general scientific methods and content of the food microbiology and hygiene sector, as well as specific professional skills. The aim of the course is to provide an integrated overview of the biology of microorganisms, food microbiology, and hygiene, covering topics related to food hygiene and safety in the production, distribution, administration, and preservation of food. In particular, the course offers insights into the biology of microorganisms, aspects of microbial ecophysiology, the determination and control of microorganisms, and hygienic standards for the prevention of foodborne illnesses. Finally, the course provides an overview of the main fermented foods.
Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche Informationen)	
Art der Prüfung	The exam consists of an oral test, including questions to assess the knowledge and skills acquired during the course, including laboratory experience, and to evaluate the ability to transfer these skills to applied cases of microbiology and food hygiene.
Bewertungskriterien	Clarity of answers and appropriate lexical choice, ability to summarize, relevance of topics covered, and ability to elaborate.
Pflichtliteratur	The lecturer will provide specific material (PowerPoint presentations) for each topic covered in the course. Lecture notes are strongly recommended as study material.
Weiterführende Literatur	
Weitere Informationen	
Ziele für nachhaltige Entwicklung (SDGs)	Sauberes Wasser und Sanitär-Einrichtungen, Gesundheit und Wohlergehen