Module title			Abbreviation
Microbiology for Food Chemistry students			07-LMC-BIO2-152-m01
Module coordinator		**Module offered by**	
holder of the Chair of Microbiology		Faculty of Biology	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
5	(not) successfully completed	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

This module comprises a lecture and accompanying exercises. During the theoretical part, students will acquire the fundamentals of bacteriology; during exercises, these will be illustrated by help of suitable experiments. The lecture will acquaint students with the fundamental principles of the cultivation, enrichment, identification and control of bacteria. In addition, it will explore the significance of bacteria both for global nutrient cycles and as mutualists, commensals and pathogens in humans. The lecture will also discuss the significance of bacteria as producers of antibiotics, the role of bacteriophages and horizontal gene transfer. During exercises, students will apply fundamental techniques for the cultivation and isolation of bacteria and will test the efficacy of a range of sterilisation and disinfection methods. They will also apply both classical macroscopic and microscopic methods for the identification and classification of bacteria. Additional exercises will provide students with an opportunity to perform experiments on antibiotic sensitivity/resistance and horizontal gene transfer.

Intended learning outcomes

Students are familiar with the fundamental principles of bacteriology. They are familiar with simple experimental techniques for addressing scientific issues in bacteriology and are able to apply these (e. g. detection and identification of bacteria).

Courses (type, number of weekly contact hours, language — if other than German)

V (2) + Ü (3)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Log (approx. 30 pages)
Assessment offered: Once a year, summer semester

Allocation of places

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Additional information

Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich geprüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. II 2. Letter f) and No. II 1. Letter b) of Annex 1 of APOLmCh and No. 4 of Annex 3 of APOLmCh.

Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Bachelor's degree (1 major) Food Chemistry (2015)
Bachelor's degree (1 major) Food Chemistry (2016)
Bachelor's degree (1 major) Food Chemistry (2019)
Bachelor's degree (1 major) Food Chemistry (2021)

Bachelor's degree (1 major) Food Chemistry (2025)