

Modulbezeichnung	Environmental Microbiology (Umweltmikrobiologie)	
Semester	WPM	
ECTS-Punkte (Dauer)	5 (1 Semester)	
Art	Wahlpflichtfach	
Studentische Arbeitsbelastung	60 h Kontaktzeit + 90 h Selbststudium	
Voraussetzungen (laut MPO)		
Empf. Voraussetzungen	Basic theoretical and practical knowledge in microbiology	
Verwendbarkeit	MaALS	
Prüfungsform und -dauer	Presentation and examination (1 hour written examination or 0.5 hour oral examination)	
Lehr- und Lernmethoden	Theoretical introduction/lecture, oral presentation of a relevant topic in this field, practical work in S2 labs, field trips for sampling	
Modulverantwortlicher	C. Gallert	
Qualifikationsziele		
Students present relevant/actual data in the field of environmental microbiology (water or bathing water quality, antimicrobial resistance, hygienic aspects etc.) from scientific literature. Students know the requested analytical methods and the relevant boundary values or other parameters in order to evaluate the obtained results according to respective legislation. Students are able to search data from literature in order to classify obtained results and provide the results as a report.		
Lehrinhalte		
Self-organization and preparation of required materials needed in the field for sampling and in the laboratory. Preparation of a to-do-list for analyzing samples according to national standards. Presentation of obtained results in the context of similar samples (literature review) and evaluation of data.		
Literatur		
J. L. Slonczewski, J. W. Foster: Microbiology: An Evolving Science; W. W. Norton & Company; Fourth edition (2017)		
J.-C. Bertrand, P. Caumette, P. Lebaron et al.: Environmental Microbiology: Fundamentals and Applications; Springer (2015)		
S. Khichi: A Handbook on Basic Microbiological Techniques; Lambert Academic Publishing (2018)		
Lehrveranstaltungen		
Dozent	Titel der Lehrveranstaltung	SWS
C. Gallert	Lab course Environmental Microbiology	2
C. Gallert	Tutorial/Seminar Environmental Microbiology	2