

Module title		Abbreviation
General and Inorganic Chemistry for Food Chemistry Students		o8-LMC-AC1-152-mo1
Module coordinator		Module offered by
holder of the Chair of Food Chemistry		Institute of Pharmacy and Food Chemistry
ECTS	Method of grading	Only after succ. compl. of module(s)
14	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
<p>Basic concepts of inorganic chemistry, nomenclature, atomic structure and periodic system; types of chemical bondings, intermolecular binding forces, solutions and heterogeneous systems, basics in thermodynamics and kinetics of chemical reactions, chemical equilibrium, law of mass action, acid/base systems and redox systems, reaction equation and stoichiometry (occurrence, presentation, properties, formula (molecular and structural formula, and stereoisomerism)) and reaction of elements and substance groups as well as their qualitative inorganic analysis, with special on elements frequently occurring in foods, and environment or which are of toxicological interest.</p>		
Intended learning outcomes		
<p>The students understand the basics of inorganic chemistry, including chemical calculations and knowledge about the most important elements. They can set up equations of reactions and assess the reactions which are possible for inorganic substance groups. The students apply their theoretical knowledge in the laboratory by performing detection reactions of inorganic ions, also in mixtures and in matrices. The students know basic working techniques in a chemical laboratory and follow safety instructions. They can independently detect and identify inorganic compounds in drinking water and confirm their results.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
V (2) + S (2) + P (8)		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>a) written examination (60 to 120 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups of 2 candidates (approx. 30 minutes total) and a) Vortestate and Nachtestate (pre and post-experiment exams, approx. 15 minutes), documentation and assessment of practical assignments (approx. 2 to 4 pages per analysis, no more than 60 pages total) or b) completion and written documentation (approx. 1 to 2 pages) of a theoretical assignment (approx. 30 minutes), Vortestate and Nachtestate (pre and post-experiment exams, approx. 15 minutes), documentation and assessment of practical assignments in lab notebook (approx. 2 to 4 pages per analysis, no more than 60 pages total).</p>		
Allocation of places		
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Additional information		
<p>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. I 2. Letter a) and No. I 1. Letter a) of Annex 1 of APOLmCh and No. 1 of Annex 2 of APOLmCh.</p>		
Referred to in LPO I (examination regulations for teaching-degree programmes)		
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Module appears in		
<p>Bachelor' degree (1 major) Food Chemistry (2015) Bachelor' degree (1 major) Food Chemistry (2016) Bachelor' degree (1 major) Food Chemistry (2019)</p>		

