

<b>Module: SL3 Practical course in Chemistry</b>		
<b>Exam:</b> SL3 Practical course in Chemistry	<b>LV.-No.:</b>	<b>ECTS-Points:</b> 5 CP
<b>Recommended Semester:</b> 3rd Semester	<b>Module:</b> Mandatory	<b>Language:</b> German
<b>Responsible lecturer:</b> Prof. Dr. Wigbert Hillebrand	<b>Cycle:</b> Winter Term	<b>Registration information:</b>
<b>Lecturer in charge:</b> Prof. Dr. Wigbert Hillebrand, Prof. Dr. Ursula Bordewick-Dell		
<b>Learning outcomes</b>	Students are able <ul style="list-style-type: none"> <li>• to perform a safety-assured working method considering the respective laboratory regulations and the instructions of the Ordinance on Hazardous Substances</li> <li>• to handle safely und correctly with conventional laboratory equipment in preparative and analytical laboratory tests</li> <li>• to perform preparative and analytical experiments in the laboratory independently and evaluate the implementation or accuracy of the method used</li> <li>• to perform simple qualitative detection reactions/ methods for food specific questions independently and evaluate the results</li> <li>• explain the main methods for characterization and determination of food ingredients</li> <li>• explain the main methods for isolating and characterizing biomolecules</li> </ul>	
<b>Form of exam</b>	Module exam: written exam (120 min)	
<b>Form of teaching</b>	<ul style="list-style-type: none"> <li>• Laboratory Course</li> </ul>	
<b>Course contents</b>	<ul style="list-style-type: none"> <li>• Separation and cleaning process</li> <li>• Titrations, precipitation gravimetry</li> <li>• Carboxylic acid ester synthesis</li> <li>• Fat determination in cheese (§64 LFGB method)</li> <li>• UV spectroscopy</li> <li>• Chromatography</li> <li>• Gel electrophoresis (agarose and SDS-PAGE)</li> <li>• Protein determination</li> </ul>	
<b>Workload</b>	Presence (4 SWS): Preparation and Follow-up: Sum:	60 h 90 h 150 h
<b>Requirements</b>	Module exam G8 (Organic Chemistry) must be passed; Proof of participation in the safety instruction and Introduction to the laboratory regulations by signature  Proof of attendance: is to be provided during the practical course and is a requirement for admission to the module examination	
<b>Literature</b>	Experimental provisions are provided	