

[C2.3]	Advanced Molecular Biology & Microbiology	Compulsory elective module in the core area C2	3-5 CP (total) = 90-150 h				2-3 SWS
			Contact hours 2-3 SWS / 30-45 h	Independent study 60-105 h			
Content							
	<p><u>Lecture</u>: Current topics in molecular microbiology will be taught. A particular focus will be on e.g., bacterial architecture, intrinsic and acquired resistance mechanisms, antibiotic resistance, cell-cell communication.</p> <p><u>Seminar (optional)</u>: Related to the topics taught in the lecture, we will discuss recent literature focusing on antibiotic resistance, signaling and cell-cell communication. The papers will be presented by groups of students and discussed in the plenum.</p> <p><i>The lecture can optionally be combined with seminar (CEM).</i></p>						
Learning outcomes and skills							
	<p><u>Lecture</u>: The students learn about state-of-the-art microbiology. Emphasis is placed on novel approaches and technologies (from systems-based to individual molecules) that drive each field or have the potential to revolutionize future research in microbiology. In preparation of the lectures, students individually study book chapters and topical scientific papers summarizing the current knowledge of the respective topics.</p> <p><u>Seminar</u>: The students learn to present and critically evaluate recent literature and to put it into a bigger physiological context.</p>						
Admissions requirements/Conditions for participation in the module/courses							
	None						
Recommended prior knowledge							
	None						
Organizational details							
Module allocation (degree programme/faculty)		Master Biochemistry / FB14					
Module transferrable to other degree programmes							
Module offered		summer semester					
Duration		1 semester					
Module coordinator		Prof. Hänelt					
Course requirements for credits							
Participation record		Seminar: Regular and active participation					
Coursework		Seminar: Group presentation of one paper (60 Min.)					
Forms of teaching / learning		Lecture, seminar					
Language teaching and instruction		English					
Module assessment		Form / duration / content, if applicable					
Final module assessment		Written exam for the lecture (120 min.)					
Cumulative module assessment consisting of							
Composition of the module grade for cumulative module assessment							
		Mode of teaching / study	Semester hours per week	Semester CP			
				1	2	3	4
	Advanced molecular biology & microbiology	L	2		3		
	CEM: Seminar Molecular microbiology	S	1		2		
	TOTAL		3		5		