

Title of module	responsible	SWS	type of course	title of lecture (lecturer)	Examination	ECTS points
<b>1st semester (winter term)</b>						
Core modules - obligatory						
Introductory Biological Physics	Schießel	2	lecture	Physics for Biology	written exam (90 min) or oral exam (20 min) <i>preevaluation: exercises</i>	8
		1	exercise	(Friedrich)		
		2	lecture	Polymer Physics		
		1	exercise	(Sommer/Schießel)		
Physical Chemistry and Experimental Methods	Schlierf	2	lecture	Experimental Biophysical Methods	complex assessment (10h) 1/2	10
		2	seminar	(Schlierf)		
		1	lab classes			
		2	lecture	Physical Chemistry of Biomolecules		
		1	exercise	(Fischer-Friedrich)		
Statistical Principles and Experimental Design	Röder	2	lecture	Statistical Principles and Experimental Design	written exam (90 min) <i>preevaluation: exercises</i>	5
		2	seminar	(Röder)		
Molecular Biology and Biochemistry of Cells and Tissues	Alberti	2	lecture	Molecular Biology and Biochemistry of Life	written exam (90 min) 2/6 complex assessment (30h) 1/6	14 (over 2 semesters)
		2	lab classes	(Alberti)		
Elements of Nanobiotechnology	Cuniberti	2	lecture	Introduction to Nanobiotechnology	oral exam (20 min) 1/2	7 (over 2 semesters)
		1	lab classes	(Cuniberti, Opitz)		
		<b>25</b>				
<b>2nd semester (summer term)</b>						
Core modules - obligatory						
Advanced Biological Physics	Friedrich	2	lecture	Stochastic Processes	written exam (90 min) or oral exam (30 min) 2/3 complex assessment (20h) 1/3	10
		2	exercise	(Friedrich/Schießel)		
		2	lecture	Advanced biological Physics		
		2	exercise	(Friedrich/N.N.)		
Molecular Biology and Biochemistry of Cells and Tissues	Alberti	2	lecture	Cell- & Mechanobiology	written exam (90 min) 2/6 complex assessment (30h) 1/6	14 (over 2 semesters)
		2	seminar	(Doyle/Dye/Mateus/Taubenberger)		
		2	lecture	Tissue Dynamics		
		2	seminar	(Doyle/Dye/Mateus/Taubenberger)		
Elements of Nanobiotechnology	Cuniberti	2	lecture	Cellular Machines	complex assessment (10h) 1/2	7 (over 2 semesters)
		2	seminar	(Diez)		
Specialization - choose one module						
Experimental Biological Physics: module Applied Biophysics		2			oral exam (20 min) 1/2	
Theoretical Biological Physics: module Computational Biophysics		2			complex assessment (10h) 1/2	6
Nanobiotechnology: module Applied Nanotechnology						
		<b>24</b>				

<b>3rd semester (winter term)</b>						
Core modules - obligatory						
Pattern Formation and Active Matter Hydrodynamics	Grill	2	lecture	Pattern formation in Biology (Ricard/Modes/Campàs)	written exam (90 min) or oral exam (30 min) 2/3 complex assessment (20h) 1/3 <i>preevaluation: exercises</i>	10
		2	exercise			
		2	lecture	Active Matter and Hydrodynamics (Grill/Jülicher)		
		2	exercise			
Research Lab Project	Schlierf	14	lab classes		oral exam (30 min)	14
Specialization - choose one module						
Experimental Biological Physics: module Advanced Biophysics		2			oral exam (20 min) 1/2	6
Theoretical Biological Physics: module Advanced Theoretical Biophysics		2			complex assessment (10h) 1/2	
Nanobiotechnology: module Advanced Nanotechnology						
		<b>26</b>				
<b>4th semester (summer term)</b>						
Masters Thesis					written report and defense	29+1
				<b>Total ECTS:</b>		<b>120</b>