Master of Science in Biochemistry and Chemical Biology

Credits according to categories – HS23 / FS24

Categories according to study regulation (SR) 2023			Hours	Credits		Performance assessment mode / minutes	
Examination subject		Courses according to curriculum		ECTS	min. per category		
Pre-study option during Bachelor's studies							
Research Project					**32**		
529-0260-00		Research Project I	34A	16		ungraded semester performance	
529-0265-00		Research Project II	34A	16		ungraded semester performance	
Master's studies							
Core Subjects					18		
a	529-0733-02	Chemical Biology and Synthetic Biochemistry	3G	6		w	100
b	529-0240-00	Chemical Biology - Peptides	3G	6		w+o	60+20
c	529-0241-10	Selectivity in Organic Synthesis	3G	6		w+o	60+20
Compensatory Subjects							
a	529-0615-01	Biochemical and Polymer Reaction Engineering	3G	6		o	30
b	529-0242-00	Supramolecular Chemistry	3G	6		w+o	60+30
c	529-0243-01	Transition Metal Catalysis: From Mechanisms to Applications	3G	6		w+o	60+30
Electives					36		
535-0030-00		Pharmaceutical Immunology II & Therapeutic Proteins	3G	3		o	15
535-0230-00		Medizinische Chemie I	2V	2		o	20
551-0313-00		Microbiology (Part I)	2V	3		w	75
529-0041-00		Moderne Massenspektroskopie, gekoppelte Analysenmethoden, Chemometrie	3G	6		w+o	60+30
551-1299-00		Bioinformatics	4G	6		w	150
551-0319-00		Cellular Biochemistry (Part I)	2V	3		w	75
551-0309-00		Concepts in Modern Genetics	4V	6		w	150
551-0317-00		Immunology I	2V	3		w	60
551-0127-00		Fundamentals of Biology III: Multicellularity	6G	8		w	150
551-1005-00		Bioanalytics	4G	4		w	150
529-0004-01		Classical Simulation of (Bio)Molecular Systems	4G	6		o	30
529-0043-01		Analytical Strategy	3G	6		w+o	60+30
529-0615-01		Biochemical and Polymer Reaction Engineering	3G	6		o	30
227-0939-00		Cell Biophysics	4G	6		w	180
529-0231-00		Organic Chemistry III: Introduction to Asymmetric Synthesis	3G	4		w+o	60+30
327-0312-00		Materials Synthesis I - Polymers	4G	4		w	120
636-0108-00		Biological Engineering and Biotechnology	3V	4		w	90
529-0233-01		Organic Synthesis: Methods and Strategies	3G	6		w+o	60+30
551-1407-00		RNA Biology Lecture Series I: Transcription & Processing & Translation	2V	4		w	90
551-1409-00		RNA Biology Lecture Series II: Non-Coding RNAs: Biology and Therapeutics	2V	4		w	90
529-0132-00		Anorganische Chemie III: Metallorganische Chemie und Homogenkatalyse	3G	4		o	30
529-0243-01		Transition Metal Catalysis: From Mechanisms to Applications	3G	6		w+o	60+30
551-0318-00		Immunology II	2V	3		w	60
535-0231-00		Medizinische Chemie II	2V	2		o	20
551-0364-00		Functional Genomics	2V	3		w	90
551-0320-00		Cellular Biochemistry (Part II)	2V	3		w	75
551-0324-00		Systems Biology	4V	6		w	150
529-0042-00		Structure Elucidation by NMR	2G	4		w	60
551-0314-00		Microbiology (Part II)	2V	3		w	75
529-0941-00		Introduction to Macromolecular Chemistry	3G	4		w	60
551-1402-00		Molecular and Structural Biology III: Biophysical Analysis of Macromolecular Mechanisms	2V	4		w	60
636-0111-00		Synthetic Biology I	3G	4		w	120
529-0242-00		Supramolecular Chemistry	3G	6		w+o	60+30
551-1103-00		Microbial Biochemistry	2V	4		o	20
529-0232-00		Organic Chemistry IV: Physical Organic Chemistry	2V+1U	4		w+o	60+30
551-1126-00		Technologies in Molecular Microbiology	2V	4		w	120
529-0059-00		Nanoscale Molecular Imaging	2G	3		o	20
551-1414-00		Molecular and Structural Biology V: Studying Macromolecules by NMR and EPR	2V	4		w	60
529-0150-00		Digital Chemistry	3G	6		o	30
327-1206-00		Chemistry of Soft Materials	4G	5		w	120
551-1412-00		Molecular and Structural Biology IV: Visualizing Macromolecules by X-Ray Crystallography and	2V	4		w	60
529-0077-00		Biosynthesis of Fragrant and Medicinal Natural Products	2G	3		w	120
551-0224-00		Advanced Proteomics	6G	4		graded semester performance	
Master Thesis		Master Thesis (26 weeks)	69D	32	32	graded semester performance	
Compulsory Electives in 'Science in Perspective' (SiP)					2	acc. to performance ass.	
		Total			120		
		Sum according to regulation			120		

spring semester
autumn and spring semester