Curriculum Life Sciences Biology

Semester	Modules						Exams/ Credits
1.	CH0142 General and inorganic Chemistry with Laboratory Course (GOP) K 10 CP	WZ0089 Introduction to Biology of Organisms (GOP) K 6 CP	MA9601 Advanced Mathematics 1 (GOP) K 5 CP	PH9034 Physics for Life Sciences (required) K + LL 7 CP	LS20028 Hot Topics in Life Sciences (required) B (SL) 2 CP		6 30
2.	WZ0128 Introduction to Genetics and Cell Biology (GOP) K 6 CP	LS20024 Diversity und Evolution of Plants and Fungi (required) K 5 CP	NAT0144 Physical Chemistry with Chemical Laboratory Course (required) K 7 CP	WZ0127 Introduction to Ecology, Evolution and Biodiversity (required) K 5 CP	CIT5130005 Introduction to Stochastical Models and Statistics (required) K 5 CP	WZ0013 Organic Chemistry (required) K 3 CP	6 31
3.	WZ2634 Introduction to Bioinformatics (required) K 5 CP	LS20029 Introduction to Microbiology with Exercises (required) K + LL 6 CP	WZ0159 Introduction to Structures, Tissues and Functions in Animals (required) K 5 CP	WZ0024 Plant Physiology (required) K 4 CP	WZ0144 Introduction to Developmental Biology (required) K 5 CP	LS20053 Introduction to Biochemistry and Metabolomics (required) (5)	6 30
4.	WZ0161 Introduction to Genomics and Practical Course in Genetics (required) K 7 CP	WZ0166 Basic practical course Biochemistry and Bioanalytics (required) LL 5 CP	WZ0214 Doing Research in Biosciences (required) K 3 CP	WZ0022 Human and Animal Physiology (required) K 6 CP	LS20025 Applied Data Science in the Life Sciences PA 5 CP	K (3) 8 CP	6 29
5. Mobility Window	Elective Modules The elective modules must be selected from the following core subjects: - Genetics und Biochemistry - Microbiology - Ecology - Plant Sciences - Zoology Animal Sciences In 3 of the core subjects at least 10 CP have to be acquired from each. The remaining CP can be selected freely.						6 30
6.	Interdisciplinary Qualifications 5 CP	LS90000 Bachelor´s Thesis (required) W 12 CP				Elective Modules 13 CP	6 30

Key		
Dark blue = Required Module Bachelor's Thesis	UE = Exercises; PR = practical course; CP = Credit Points;
light blue = Elective modules	SL = course work; K = written exam;
Grey = Required modules	LL = Laboratory course; B = report;
Green = Fundamentals and Orientation Examinations (GOP)	W = research paper
Orange = Interdisciplinary Qualifications	PA = project work; PRÄ = presentation

Exemplary and overlap free curriculum (current status: 02.12.2024)

Semes-ter	Modules						Exams/Credits
1.	CH0142 General and in-organic Chemistry with Laboratory Course (GOP) K 10 CP	WZ0089 Introduction to Biology of Organisms (GOP) K 6 CP	MA9601 Advanced Mathematics 1 (GOP) K 5 CP	PH9034 Physics for Life Sciences (required) K + LL 7 CP	LS20028 Hot Topics in Life Sciences (required) B (SL) 2 CP		6 30
2.	WZ0128 Introduction to Genetics and Cell Biology (GOP) K 6 CP	LS20024 Diversity und Evolution of Plants and Fungi (required) K 5 CP	NAT0144 Physical Chemistry with Chemical Laboratory Course (required) K 7 CP	WZ0127 Introduction to Ecology, Evolution and Biodiversity (required) K 5 CP	CIT5130005 Introduction to Stochastical Models and Statistics (required) K 5 CP	WZ0013 Organic Chemistry (required) K 3 CP	6 31
3.	WZ2634 Introduction to Bioinformatics (required) K 5 CP	LS20029 Introduction to Microbiology with Exercises (required) K + LL 6 CP	WZ0159 Introduction to Structures, Tissues and Functions in Animals (required) K 5 CP	WZ0024 Plant Physiology (required) K 4 CP	WZ0144 Introduction to Developmental Biology (required) K 5 CP	LS20053 Introduction to Biochemistry and Metabolomics (required) (5)	6 30
4.	WZ0161 Introduction to Genomics and Practical Course in Genetics (required) K 7 CP	WZ0166 Basic practical course Biochemistry and Bioanalytics (required) LL 5 CP	WZ0214 Doing Research in Biosciences (required) K 3 CP	WZ0022 Human and Animal Physiology (required) K 6 CP	LS20025 Applied Data Science in the Life Sciences PA 5 CP	K (3) 8 CP	6 29
5.	WZ1082 Fish Biology and Aquaculture (Core Subject Ecology) K 5 CP	WZ2615 Diversity and Evolution of Mosses (Core Subject Plant Sciences) PRÄ 5 CP	WZ3096 Scientific Computing for Biological Sciences with Matlab (Core Subject Zoology Animal Sciences) K 3 CP	LS30003 Food Microbiology (Core Subject Microbiology) K + LL 5 CP	WZ2517 Research Project Plant Developmental Genetics (Core Subject Genetics and Biochemistry) B 10 CP	WZ2577 Functional Diversity of Anmials (Core Subject Zoology Animal Sciences) (2)	6 30
6.	WZ2674 Challenges of Biomedicine. Social, Political and Ethical Aspects of Medical Biology SL 5 CP	LS90000 Bachelor´s Thesis (required) W 12 CP		LS20030 Design of Experiments and Statistics for Biological Data (Core Subject Ecology) K 5 CP	WZ2530 Plant Physiology and Diagnostics (Core Subject Plant Sciences) K 5 CP	K+LL (3) 5 CP	6 30

Mobility Window (marked alongside semester 5)

Key

Dark blue = Required Module Bachelor's Thesis
light blue = Elective modules
Grey = Required modules
Green = Fundamentals and Orientation Examinations (GOP)
Orange = Interdisciplinary Qualifications

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TUM School of Life Sciences