

## **Appendix to the Study Regulations for the Master's of Applied Science Programme in Life Sciences at the School of Life Sciences and Facility Management, Zurich University of Applied Sciences (ZHAW)**

Based on § 2 of the General Academic Regulations for Bachelor's and Master's degree programmes of the Zurich University of Applied Sciences (ZHAW) of 29 January 2008 and to supplement the Study Regulations for the Master's Programme in Life Sciences of 30 June 2009, the following appendix to the Study Regulations for the Master of Science in Life Sciences of the School of Life Sciences and Facility Management was:

- first enacted by the executive board on 26.10.2009
- and final amendments were made by the executive board on 30.01.2018.

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### Disclaimer

This is a non-binding, unofficial translation of the original German version, "[Anhang zur Studienordnung für den Master in Life Sciences der Zürcher Hochschule für Angewandte Wissenschaften des Departement Life Sciences und Facility Management](#)". While it was prepared with all due care, the ZHAW School of Management and Law takes no responsibility for any remaining omissions and/or errors. The legally binding document is the original German version, which shall prevail in any case of doubt or differences of interpretation.

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## 1 Admission requirements

### 1.1 Direct admission

Persons who have completed a University of Applied Science Bachelor's degree, graduating with an ECTS grade A or B, or a final grade of at least 5.0 (Swiss grading system) in one of the following fields of study can begin their studies directly and without further conditions in the corresponding specialisations:

- Biotechnology and Pharmacy
- Chemistry
- Food Technology
- Natural Resource Sciences

Applicants with a Bachelor's degree from the University of Zurich or the Swiss Federal Institute of Technology (ETH) (without relevant work experience in the field of the corresponding specialisation) who have required final grade are eligible to study for a Master's degree at the Zurich University of Applied Sciences after completing a practical bridging programme (6 months internship in the area of the desired specialisation).

### 1.2 Additional admission requirements (for all students) and admission with an entrance examination (for students who do not fully but largely meet the admission requirements)

Specific admission requirements for admission to the Master of Science in Life Sciences of the School of Life Sciences and Facility Management:

#### 1.2.1 Specialisation in Food and Beverage Innovation (FBI)

Students with tertiary level qualifications (a University of Applied Sciences, the University of Zurich, the Swiss Federal Institute of Technology - ETH) in the field of food technology or who have an equivalent degree in a field related to food technology (such as the food industry, food sciences, eco-trophology, beverage technology or similar) are admitted to the programme.

The Programme Director decides on the equivalence of other degrees in consultation with the Head of Specialisation.

The aptitude test is an assessment, oral and/or written, of the student's competence having completed the Bachelor's level.

#### 1.2.2 Specialisation in Pharmaceutical Biotechnology (PB)

Students with tertiary level competencies (a University of Applied Sciences, the University of Zurich, the Swiss Federal Institute of Technology - ETH) in the field of biotechnology, pharmaceutical biotechnology or pharmaceutical sciences or who have a relevant equivalent degree with corresponding proof of practical qualification are admitted the programme.

The Programme Director decides on the equivalence of other degrees in consultation with the Head of Specialisation.

The aptitude test is an assessment, oral and/or written, of the student's competence having completed the Bachelor's level.

### 1.2.3 Specialisation in Chemistry for Life Sciences (CLS)

Students with tertiary level competencies (a University of Applied Sciences, the University of Zurich, the Swiss Federal Institute of Technology - ETH) in the field of chemistry or have a relevant equivalent degree with corresponding proof of practical qualification are admitted to the Bachelor level of a degree programme in chemistry.

The Programme Director decides on the equivalence of other degrees in consultation with the Head of Specialisation.

The aptitude test is an assessment, oral and/or written, of the student's competence having completed the Bachelor's level.

### 1.2.4 Specialisation in Applied Computational Life Sciences (ACLS)

Students with tertiary level competencies (a University of Applied Sciences, the University of Zurich, the Swiss Federal Institute of Technology - ETH) in the fields of food technology, biology, chemistry, environmental sciences, biology, pharmacology, pharmaceutical technology, medical technology or any other discipline related to the life sciences are admitted to the Applied Computational Life Sciences programme.

The Programme Director decides on the equivalence of other degrees in consultation with the Head of Specialisation.

The aptitude test is an assessment, oral and/or written, of the student's competence having completed the Bachelor's level.

## 2 Structure of the Master's programme

The Master's programme in Life Sciences is taken according to the following structure:

Module Category	ECTS credits after specialisation				
	FBI	PB	CLS	NRS	ACLS
Cooperation Modules	24-30	30	30	30	27-30
Specialisation Skills	20-26	20	20	30	30-33
Master's Thesis	40	40	40	30	30

NRS= Natural Resource Sciences (expiring specialisation; admissions no longer possible).

The Cooperation Modules are offered in conjunction with the Bern University of Applied Sciences (BFH), the University of Applied Sciences and Arts Northwest Switzerland (FHNW) and the University of Applied Sciences and Arts Western Switzerland (HES-SO). The Specialisation Skills and the Master's Thesis are to be completed at the ZHAW.

### 3 Module composition

#### 3.1 Individual study agreement

The modules to be attended are defined in the individual study agreement (ISA), which is effectively the student's module registration. This is developed in consultation with the supervising lecturer of the Master's thesis, checked by the Head of Specialisation and approved by the Programme Director. The individual study agreement can be adapted each semester until the end date in accordance with the study plan of the programme. The attendance of excess modules must be approved in advance by Programme Director.

#### 3.2 Cooperation modules

##### *Core Competencies (CC) and Cluster-specific (CS) Modules*

The Cooperation Modules consist of core competencies in the areas of data and business, as well as cluster-specific modules. In the cooperation module, the specialisations of all partner schools are allocated to so-called clusters (specialist areas). A specific range of modules from one or more associated clusters is available as cluster-specific modules for each specialisation.

Students must take at least 15 out of 21 ECTS credits from the Core Competencies.

Students must take at least 9 ECTS credits from the Cluster-specific Modules.

Depending on the specialisation, a total of 24 to 30 ECTS credits are to be taken in the Cooperation Modules. The exact number of credits is specified in the table in Section 2.

##### *Variation 1*

Students select a minimum of 15 ECTS credits from the Core Competencies and an additional 9 ECTS credits must be taken from the Cluster-specific Modules. In order to achieve the required 90 ECTS credits, a further 6 ECTS credits must be selected as supplementary elective modules. The table above (Section 2) shows in which specialisation these 6 ECTS credits must be taken as further cooperation modules or where there is a choice between cooperation modules and Specialisation Skills.

##### *Variation 2*

Students select a maximum of 21 ECTS credits from the Core Competencies and an additional 9 ECTS credits must be taken from the Cluster-specific Modules. Thus, these students reach 90 ECTS credits by acquiring 30 ECTS credits in the Cooperation Modules.

**Variation 3**

Students choose 18 ECTS credits from the Core Competencies and an additional 9 ECTS credits must be taken from the Cluster-specific Modules. In order to achieve the required 90 ECTS credits, an additional 3 ECTS credits must be selected from the supplementary elective modules. The table above (Section 2) shows in which Specialisation Skills these 3 ECTS credits must be taken as further cooperation modules and in which specialisation they can be taken as Specialisation Skills.

## – Core Competencies (at least 15 out of 21 ECTS credits):

Module	Credits	Assessment	Module type according to specialisation				
			FBI	CM	CLS	NRS	ACLS
Handling and Visualising Data	3	G	EM	EM	EM	EM	CM
Design and Analysis of Experiments	3	G	EM	EM	EM	EM	CM
Modelling and Exploration of Multivariate Data	3	G	EM	EM	EM	EM	CM
Business Administration for Life Sciences	3	G	EM	EM	EM	EM	EM
Management and Leadership for Life Sciences	3	G	EM	EM	EM	EM	EM
Innovation and Project Management	3	G	EM	EM	EM	EM	EM
Politics and Society	3	G	EM	EM	EM	EM	EM

G = Grade, CM = Compulsory module, EM = Elective module

## – Cluster-specific modules (minimum 9 ECTS credits):

Specialisation option	Module	Credits	Assessment	Type	Cluster/Group
Food and Beverage Innovation (FBI)	Progresses in Food Processing	3	G	EM	Food
	Nutrition and Nutrition Related Chronic Diseases <sup>oS</sup>	3	G	EM	Food
	Foodomics	3	G	EM	Food
Minimum 9 ECTS credits in the Food Cluster	Advanced Sensory Techniques	3	G	EM	Food
	Sourcing, Processing and Tracing of Food	3	G	EM	Food
	Life Cycle Assessment	3	G	EM	Environment
	Sustainable Natural Resource Management	3	G	EM	Environment
Pharmaceutical Biotechnology (PB)	Compound Profiling in Pharmaceutical Drug Discovery	3	G	EM	Bio/Pharma
	Drug Formulation and Delivery for Solid Dosage Forms	3	G	EM	Bio/Pharma
	Design of Biopharmaceutical Production Facilities	3	G	EM	Bio/Pharma
	Regulatory Affairs <sup>oS</sup>	3	G	EM	Bio/Pharma
	Physiology and Immunotherapies	3	G	EM	Bio/Pharma
	Tissue Engineering for Drug Discovery	3	G	EM	Bio/Pharma
	Modelling of Complex Systems	3	G	EM	BECS
Chemistry and Energy	3	G	EM	Chemistry	

Specialisation option	Module	Credits	Assessment	Type	Cluster/Group
Chemistry for the Life Sciences (CLS)	Materials Science	3	G	EM	Chemistry
	Surface Characterisation	3	G	EM	Chemistry
	Polymers and Applications <sup>oS</sup>	3	G	EM	Chemistry
	Chemistry and Energy	3	G	EM	Chemistry
	Green Chemistry	3	G	EM	Chemistry
	Modelling of Complex Systems	3	G	EM	BECS
	Machine Learning and Pattern Recognition	3	G	EM	BECS
	Medical Imaging and Image Processing	3	G	EM	BECS
	Optimisation Methods	3	G	EM	BECS
	Physiology and Immunotherapies	3	G	EM	Bio/Pharma
	Life Cycle Assessment	3	G	EM	Environment
	Sustainable Natural Resource Management	3	G	EM	Environment
	Biodiversity	3	G	EM	Environment
	Nutrition and Nutrition Related Chronic Diseases <sup>aS</sup>	3	G	EM	Food
	Sustainable Sourcing, Processing and Tracing of Food	3	G	EM	Food
Natural Resource Sciences (NRS)	Journal Club Environmental and Natural Resource Sciences	3	G	EM	Environment
	Life Cycle Assessment	3	G	EM	Environment
	Sustainable Natural Resource Management	3	G	EM	Environment
	Ecological Infrastructure in Landscapes <sup>oS</sup>	3	G	EM	Environment
	Biodiversity	3	G	EM	Environment
	Water Management for Households, Industry and Agriculture	3	G	EM	Environment
	Sustainable Sourcing, Processing and Tracing of Food	3	G	EM	Food
	Nutrition and Nutrition Related Chronic Diseases <sup>oS</sup>	3	G	EM	Food
	Statistics and Planning Methodology	3	G	EM	MSE*
	Environmental, Planning and Building Law	3	G	EM	MSE*
	Energy: Production, Consumption and Management	3	G	EM	MSE*
	Design Processes and Methods	3	G	EM	MSE*
	Geographic Information Systems (GIS)	3	G	EM	MSE*
	Natural Hazards	3	G	EM	MSE*
	The Physics of Materials and Engineering Devices	3	G	EM	MSE*
Regional Development, Economy and Politics	3	G	EM	MSE*	
Urbanisation and Mobility	3	G	EM	MSE*	
Philosophy of Science and Research Methods	3	G	EM	MSSW*	
Research Techniques	3	G	EM	MSSW*	
*The modules offered by the MSE (Master of Science in Engineering) and the MSSW (Master of Science in Social Work) can be taken with the approval of the Programme Director. These modules are planned in accordance with the timetables of the respective programmes.					
Specialisation option	Module	Credits	Assessment	Type	Cluster/Group
	Modelling of Complex Systems	3	G	CM	BECS

Applied Computational Life Sciences (ACLS)  Minimum 6 ECTS credits from the BECS Group and a minimum 3 ECTS credits from other Cluster-specific Modules	Optimisation Methods	3	G	CM	BECS
	Medical Imaging and Image Processing	3	G	EM	BECS
	Compound Profiling in Pharmaceutical Drug Discovery	3	G	EM	Bio/Pharma
	Drug Formulation and Delivery for Solid Dosage Forms	3	G	EM	Bio/Pharma
	Design of Biopharmaceutical Production Facilities	3	G	EM	Bio/Pharma
	Regulatory Affairs <sup>oS</sup>	3	G	EM	Bio/Pharma
	Physiology and Immunotherapies	3	G	EM	Bio/Pharma
	Tissue Engineering for Drug Discovery	3	G	EM	Bio/Pharma
	Materials Science	3	G	EM	Chemistry
	Surface Characterisation	3	G	EM	Chemistry
	Polymers and Applications <sup>oS</sup>	3	G	EM	Chemistry
	Chemistry and Energy	3	G	EM	Chemistry
	Green Chemistry	3	G	EM	Chemistry
	Progresses in Food Processing	3	G	EM	Food
	Nutrition and Nutrition Related Chronic Diseases <sup>oS</sup>	3	G	EM	Food
	Foodomics	3	G	EM	Food
	Sustainable Sourcing, Processing and Tracing of Food	3	G	EM	Food
	Advanced Sensory Techniques	3	G	EM	Food
	Journal Club Environmental and Natural Resource Sciences	3	G	EM	Environment
	Life Cycle Assessment	3	G	EM	Environment
Sustainable Natural Resource Management	3	G	EM	Environment	
Ecological Infrastructure in Landscapes <sup>oS</sup>	3	G	EM	Environment	
Biodiversity	3	G	EM	Environment	
Water Management for Households, Industry and Agriculture	3	G	EM	Environment	

BECS = Biomedical Engineering and Computational Science, G = Grade, CM = Compulsory module, EM = Elective module, oS = For modules marked 'oS' (outside semester), students may be required to obtain Proofs of Performance or to attend courses outside of the semester. The course dates are set out in the document "Annual Plan for the MSc in Life Sciences". The modules are run according to an annual cycle.

### 3.3 Specialisation Skills

Specialisation option	Module	Credits	Assessment	Type
Food and Beverage Innovation (FBI) Minimum 20; maximum 26 ECTS credits	Food Innovation	5	G	CM
	Product and Process Design	5	G	CM
	Managing the Food Supply Chain	5	G	CM
	Food, Society and Nutrition	5	G	CM
	Digital Food Business*	3	G	EM
	Tutoring 1*	1	G	EM
	Tutoring 2*	2	G	EM
*Supplementary elective module in the specialisation				



Specialisation option	Module	Credits	Assessment	Type	
Pharmaceutical Biotechnology (PB) 20 ECTS credits	Biodesign: Ways to Active Pharmaceutical Ingredients <sup>oS</sup>	5	G	CM	
	Bioprocessing and Bioanalytics <sup>oS</sup>	5	G	CM	
	Downstream and Safety <sup>oS</sup>	5	G	CM	
	Drug Formulation and Biological Test Systems <sup>oS</sup>	5	G	CM	
Chemistry for the Life Sciences (CLS) 20 ECTS credits	Small Active Molecules <sup>oS</sup>	4	G	CM	
	Big Active Molecules <sup>oS</sup>	4	G	CM	
	Biomaterial and Functional Surfaces <sup>oS</sup>	4	G	CM	
	Analytical Technologies <sup>oS</sup>	4	G	CM	
	Green Chemistry – Advanced Concepts <sup>oS</sup>	4	G	CM	
Natural Resource Sciences (NRS) 30 ECTS credits	Tutorial 1: Project Initiation <sup>oS</sup>	8	G	CM	
	Tutorial 2: Project Implementation <sup>oS</sup>	8	G	CM	
	Tutorial 3: Project Evaluation <sup>oS</sup>	5	G	CM	
	Plenum 1: Case Studies in Biostatistics	3	G	CM	
	Plenum 2: Information Visualisation	3	G	CM	
	Plenum 3: Environmental Ethics, Environmental Mediation and Participative Processes <sup>oS</sup>	3	G	CM	
Applied Computational Life Sciences (ACLS) Minimum 30; maximum 33 ECTS credits	Programming, Algorithms and Data-Structures <sup>oS</sup>	5	G	CM	
	Mathematical Modelling <sup>oS</sup>	5	G	CM	
	Databases and Data Architecture Systems <sup>oS</sup>	5	G	CM	
	Machine Learning and Pattern Recognition <sup>oS</sup>	3	G	CM	
	Neural Networks and Deep Learning <sup>oS</sup>	2	G	CM	
	Computational Life Science Seminar <sup>oS*</sup>	3	G	EM	
	*Additional elective modules in the specialisation				
	Track module 1: Genome-oriented Applied Computational Life Sciences <sup>oS</sup>	5	G	EM	
	Track module 1: Active molecule-oriented Applied Computational Life Sciences <sup>oS</sup>		G		
	Track module 1: Process-oriented Applied Computational Life Sciences <sup>oS</sup>		G		
	Special track module 1: in accordance with Master Thesis topic <sup>oS</sup>		G		
	Track module 2: Genome-oriented Applied Computational Life Sciences <sup>oS</sup>	5	G	EM	
	Track module 2: Active molecule-oriented Applied Computational Life Sciences <sup>oS</sup>		G		
	Track module 2: Process-oriented Applied Computational Life Sciences <sup>oS</sup>		G		
Special track module 2: in accordance with Master Thesis topic <sup>oS</sup>	G				
One Track Module 1 and one Track Module 2 must be selected from each of the Track Modules. Both track modules and the Master's thesis must be chosen in the same research area.					

G = Grade, CM = Compulsory module, EM = Elective module oS = For modules marked 'oS' (outside semester), students may be required to obtain Proofs of Performance or to attend courses outside of the semester The course dates are set out in the document "Annual Plan for the MSc in Life Sciences". The modules are run according to an annual cycle.

### 3.4 Master's Thesis

Milestones for Master's Thesis with 40 ECTS credits:

Module	Type	Assessment	Module type after specialisation		
			FBI	PB	CLS
Master's Thesis Milestone 1 <sup>oS</sup>	CM	G	10	10	10
Master's Thesis Milestone 2 <sup>oS</sup>	CM	G	10	10	10
Master's Thesis Milestone 3 <sup>oS</sup>	CM	G	10	10	10
Master's Thesis Milestone 4 <sup>oS</sup>	CM	G	10	10	10

Milestones for Master Thesis with 30 ECTS credits:

Module	Type	Assessment	Module type after specialisation	
			NRS	ACLS
Master's Thesis Milestone 1 <sup>oS</sup>	CM	G	10	10
Master's Thesis Milestone 2 <sup>oS</sup>	CM	G	10	10
Master's Thesis Milestone 3 <sup>oS</sup>	CM	G	10	10

G = Grade, CM = Compulsory module, oS = For modules marked 'oS' (outside semester), students may be required to obtain Proofs of Performance or to attend courses outside of the semester. The course dates are set out in the document "Annual Plan for the MSc in Life Sciences". The modules are run according to an annual cycle.

The Master's thesis is completed in three or four modules (Milestones 1, 2 and 3 or Milestones 1, 2, 3 and 4) with 10 ECTS credits each. Several modules can be completed per semester.

It is possible to amend the individual milestones if the module grade is between 3.50 and 3.99. A maximum of 4.00 can be awarded for amended Proofs of Performance and the reworking must always be completed within the same semester. The supervising lecturers must approve exceptions. Should a module grade be below 3.50, the module must be repeated with all Proofs of Performance for the milestone.

### 3.5 Optional modules

All Cooperation Modules and Elective Modules of the specialisations are offered as Optional Modules. Students may select supplementary courses within the framework of the ISA totalling a maximum of 10 ECTS credits. The repetition of failed modules has priority. The attendance of Optional Modules must be discussed in advance with the Head of Specialisation and approved by the Programme Director. Optional modules are not relevant to the graduation, do not count towards the fulfilment of the requirements for graduation and are only listed on the ZHAW transcript.

Module	Module Category	Credits	Assessment	Module type after consolidation				
				FBI	PB	CLS	NRS	ACLS
Handling and Visualising Data	CC	3	G	OM	OM	OM	OM	-
Design and Analysis of Experiments	CC	3	G	OM	OM	OM	OM	-
Modelling and Exploration of Multivariate Data	CC	3	G	OM	OM	OM	OM	-
Business Administration for Life Sciences	CC	3	G	OM	OM	OM	OM	OM
Management and Leadership for Life Sciences	CC	3	G	OM	OM	OM	OM	OM
Innovation and Project Management	CC	3	G	OM	OM	OM	OM	OM
Politics and Society	CC	3	G	OM	OM	OM	OM	OM
Progresses in Food Processing	CS Food	3	G	OM	OM	OM	OM	OM
Nutrition and Nutrition Related Chronic Diseases <sup>oS</sup>	CS Food	3	G	OM	OM	OM	OM	OM
Foodomics	CS Food	3	G	OM	OM	OM	OM	OM
Sustainable Sourcing, Processing and Tracing of Food	CS Food	3	G	OM	OM	OM	OM	OM
Advanced Sensory Techniques	CS Food	3	G	OM	OM	OM	OM	OM
Digital Food Business	Specialisation Skills, FBI	3	G	OM	-	-	-	-
Tutoring 1	Specialisation Skills, FBI	1	G	OM	-	-	-	-
Tutoring 2	Specialisation Skills, FBI	2	G	OM	-	-	-	-
Compound Profiling in Pharmaceutical Drug Discovery	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Drug Formulation and Delivery for Solid Dosage Forms	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Design of Biopharmaceutical Production Facilities	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Regulatory Affairs <sup>oS</sup>	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Physiology and Immunotherapies	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Tissue Engineering for Drug Discovery	CS Bio/Pharma	3	G	OM	OM	OM	OM	OM
Materials Science	CS Chemistry	3	G	OM	OM	OM	OM	OM
Surface Characterisation	CS Chemistry	3	G	OM	OM	OM	OM	OM
Polymers and Applications <sup>oS</sup>	CS Chemistry	3	G	OM	OM	OM	OM	OM
Chemistry and Energy	CS Chemistry	3	G	OM	OM	OM	OM	OM
Green Chemistry	CS Chemistry	3	G	OM	OM	OM	OM	OM
Journal Club Environmental and Natural Resource Sciences	CS Environment	3	G	OM	OM	OM	OM	OM
Life Cycle Assessment	CS Environment	3	G	OM	OM	OM	OM	OM

Sustainable Natural Resource Management	CS Environment	3	G	OM	OM	OM	OM	OM
Ecological Infrastructure in Landscapes <sup>oS</sup>	CS Environment	3	G	OM	OM	OM	OM	OM
Biodiversity	CS Environment	3	G	OM	OM	OM	OM	OM
Module	Module Category	Credits	Assessment	Module type after consolidation				
Water Management for Households, Industry and Agriculture	CS Environment	3	G	OM	OM	OM	OM	OM
Modelling of Complex Systems	CS BECS	3	G	OM	OM	OM	OM	-
Machine Learning and Pattern Recognition	CS BECS	3	G	OM	OM	OM	OM	-
Medical Imaging and Image Processing	CS BECS	3	G	OM	OM	OM	OM	OM
Optimisation Methods	CS BECS	3	G	OM	OM	OM	OM	-
Computational Life Science Seminar <sup>oS</sup>	Specialisation Skills, ACLS	3	G	-	-	-	-	OM

BECS = Biomedical Engineering and Computational Science, CC = Core Competences, CS = Cluster-specific, G = Grade, OM = Optional module, oS = For modules marked 'oS' (outside semester), students may be required to obtain Proofs of Performance or to attend courses outside of the semester. The course dates are set out in the document "Annual Plan for the MSc in Life Sciences". The modules are run according to an annual cycle.

#### 4 English translations of the specialisations consolidation

English titles of specialisations

- a. Master of Science in Life Sciences with Specialisation in Food and Beverage Innovation UAS Zurich
- b. Master of Science in Life Sciences with Specialisation in Pharmaceutical Biotechnology UAS Zurich
- c. Master of Science in Life Sciences with Specialisation in Chemistry for the Life Sciences UAS Zurich
- d. Master of Science in Life Sciences with Specialisation in Natural Resource Sciences UAS Zurich
- e. Master of Science in Life Sciences with Specialisation in Applied Computational Life Sciences UAS Zurich

#### 5 Transitional conditions

Students who started their studies before the Autumn Semester 2018/2019 are subject to the following transitional conditions:

- a. Students who have passed all Cooperation Modules by the end of the Spring Semester 2018 remain subject to the Appendix of 11 April, 2017.
- b. Students who have not yet passed all the Cooperation Modules by the end of the Spring Semester 2018 will continue their studies in accordance with the present Appendix.

The assessment of the modules still to be attended and the amendment of the Individual Study Agreement takes into account academic achievements already attained and is oriented according to the following table. In principle, new modules offered as of Autumn Semester 2018 may not be taken if a majority of the content has already been covered within the framework of a module already completed. The Head of Specialisation and the Programme Director must approve exceptions.

## 6 Overview of old and new modules

All modules from module options offered to the end of the Spring Semester 2018 which have been passed are credited towards the degree. The following table shows the contents of the old curriculum (modules offered until the end of Spring Semester 2018) compared to the new range of modules valid from Autumn Semester 2018:

Old module range offered until the end Spring Semester 2018		No longer available	Agreement of the con- tents in the new offer	Con- tent new module	New module range from Autumn Semester 2018	
Code	Old Module				Code	New Module
A1	Innovation and Knowledge Management	x			-	
A2	Leadership	x			-	
A3	Business Management	x			-	
A4	Communication and Market	x			-	
A5	Society and Politics	x			-	
T17	Management of R&D Projects	x			-	
				x	B1	Business Administration for Life Sciences
				x	B2	Management and Leadership for Life Sciences
				x	B3	Innovation and Project Management
				x	B4	Politics and Society
T3	Applied Statistics	x			-	
T4	Data Management and Visualisation	x			-	
				x	D1	Handling and Visualising Data
				x	D2	Design and Analysis of Experiments
				x	D3	Modelling and Exploration of Multivariate Data
T8	Cellular and Molecular Physiology	x			-	
				x	BP5	Physiology and Immunotherapies

Old module range offered until the end Spring Semester 2018		No longer available	Agreement of the con- tents in the new offer	Con- tent new module	New module range from Autumn Semester 2018	
Code	Old Module				Code	New Module
T2	Nutrition and Nutrition-related Chronic Diseases		x		F2	Nutrition and Nutrition Related Chronic Dis- eases
T7	Biodiversity		x		E5	Biodiversity
T12	Sustainable Development in NRM		x		E3	Sustainable Natural Re- source Management
T13	Materials Science		x		C1	Materials Science
T14	Polymers & Applications		x		C3	Polymers and Applica- tions
T15	Modelling of Complex Systems		x		BECS1	Modelling of Complex Systems
T16	Sustainable Sourcing, Processing and Tracing of Food		x		F4	Sustainable Sourcing, Processing and Tracing of Food
T18	Life Cycle Assessment		x		E2	Life Cycle Assessment
T1	Quality Excellence	x			-	
T10	Natural Substances	x			-	

B = Management, Business and Society, D = Handling and Understanding Data

BECS, BP, C, E and F = Cluster-specific Modules in the respective clusters: Biomedical Engineering and Computa-  
tional Science, Bio/Pharma, Chemistry, Environment and Food

Erlassverantwortliche/-r	Leiter/-in Studium Departement N		Ablageort	1.04.01 Führungsgrundlagen
Beschlussinstanz	Hochschulleitung (HSL)		Publikationsort	Public
Version	Beschluss	Beschlussinstanz	Inkrafttreten	Beschreibung Änderung
2.0.0			01.08.2018	Erste Übersetzung zur deutschen Fassung Version 2.0.0 Redaktionelle Anpassung, 26.8.2018