

## Attachment 2, Part 1

### Study Schedule

the module type and its duration (lecture hours per week (LHPW) is indicated and the necessary assessment, type, scope and structure is to be found in the module descriptions.

Module No.	Module Name	First semester	Second semester	Third semester (M)	Fourth semester	CP	Total CP
		L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC			
<b>Compulsory Modules of Basic Education</b>							<b>25</b>
CMS-SKL	Soft Skills	2/0/0/0/0/0/2 2GW				5	
CMS-PRO	Research Project			0/0/0/0/12/0/0 2GW		15	
CMS-SEM	Literature Studies in Computational Modeling		0/0/4/0/0/0/0 GW*			5	
Elective <b>Compulsory Modules</b> of the Basic Education (3 of 10), (for the track "Computational Life Science" 3 of 9)							<b>15</b>
CMS-COR-MLD	Machine Learning and Data Mining	2/2/0/0/0/0/0 GW				5	
CMS-COR-HPC	Parallel Programming and High-Performance Computing	2/2/0/0/0/0/0 GW				5	
CMS-COR-NUM	Basic Numerical Methods	2/2/0/0/0/0/0 GW				5	
CMS-COR-SAP	Stochastics and Probability	2/2/0/0/0/0/0 GW				5	
CMS-COR-VIZ	Data Visualization	2/2/0/0/0/0/0 GW				5	
CMS-COR-SED	Statistical Principles and Experimental Design (not selectable for the Track CLS)	2/2/0/0/0/0/0 PEW GW				5	

CMS-COR-FAI	Foundations of Artificial Intelligence	2/2/0/0/0/0/0 GW				5	
CMS-COR-KM	Knowledge Models	2/2/0/0/0/0/0 GW				5	
CMS-COR-DBM	Database Management	2/2/0/0/0/0/0 GW				5	
CMS-COR-SSE	Scientific Software Engineering	2/2/0/0/0/0/0 GW				5	
<b>Compulsory elective for professional profiling</b>							
Choice of a track of six according to attachment 2, Part 2	Compulsory modules according to attachment 2, Part 2						<b>50</b>
					<b>Master's Thesis Defence</b>		<b>29 1</b>
		30	30	30	30		<b>120</b>

\* The type and extent of the individual forms of teaching and learning, as well as the number of assessments vary, depending on the student's choice.

### Attachment 2, Part 2

#### Curriculum of the professional profiling - compulsory modules in the selected track

the module type and its duration (lecture hours per week (LHPW)) is indicated and the necessary assessment, type, scope and structure is to be found in the module descriptions.

Module No	Module Name	First semester	Second semester	Third semester (M))	Fourth semester	CP	Total CP
		L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC			
<b>Choice of a track from six options</b>							
<b>Computational Life Science</b>							<b>50</b>
CMS-CLS-IBC	Introduction to Biochemistry	2/0/0/0/0/2/0 2GW				5	
CMS-COR-SED	Statistical Principles and Experimental Design	2/2/0/0/0/0/0 GW				5	
CMS-CLS-ELG	Computational Life Science Basic		4 LHPW* GW*	4 LHPW* GW*		10	

CMS-CLS-ABI	Applied Bioinformatics		2/2/0/0/0/0/0 GW			5		
CMS-CLS-MOS	Modeling and Simulation in Biology		2/2/0/0/0/0/0 GW			5		
CMS-COR-TEA	Computational Life Science Teamproject		0/0/0/0/8/0/0 2GW			10		
CMS-CLS-ELV	Computational Life Science Advanced			8 LHPW* GW*		10		
<b>Computational Mathematics</b>								<b>50</b>
CMS-CMA-ELG	Computational Mathematics Basics	4 LHPW* GW*	4 LHPW* GW*			10		
CMS-CMA-FEM	Finite Element Methods	3/1/0/0/0/0/0 PEW GW				5		
CMS-CMA-MODSEM	Modeling Case Studies		0/0/4/0/4/0/0 GW			10		
CMS-CMA-PROJ	Computational Mathematics Project			0/0/2/0/2/0/0 GW		5		
CMS-CMA-ELV1	Computational Mathematics Advanced		4 LHPW* GW*	4 LHPW* GW*		10		
CMS-CMA-ELV2	Computational Mathematics Applications		4 LHPW* GW*	4 LHPW* GW*		10		

Module No.	Module Name	First semester	Second semester	Third semester (M)	Fourth semester	CP	Total CP
		L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC	L/E/S/T/RP/P/LC			
<b>Visual Computing</b>							<b>50</b>
CMS-VC-ELG	Visual Computing Basics	8 LHPW* GW*				10	
CMS-VC-ELV1	Visual Computing Advanced		6 LHPW* GW*	6 LHPW* GW**		15	
CMS-VC-ELV2	Visual Computing Applications		1/1/0/0/0/0/0 + 4 LHPW* GW*	1/1/0/0/0/0/0 + 4 LHPW* GW*		15	
CMS-VC-TEA	Visual Computing Teamproject		0/0/0/0/8/0/0 2GW			10	
<b>Computational Modelling in Energy Economics</b>							<b>50</b>
CMS-EE-EPM	Electric Power Markets	2/2/0/0/0/0/0 GW				5	
CMS-EE-EL1	Computational Modelling in Energy Economics Basics	4 LHPW* GW*	4 LHPW* GW*			10	
CMS-EE-SCEE	Case Studies in Energy Economics		0/0/2/0/0/0/0 2GW			10	
CMS-EE-LSEE	Literature Studies in Energy Economics			0/0/2/0/0/0/0 2GW		5	
CMS-EE-REEP	Resource Economics and Environmental Policy		2/2/0/0/2/0/0 2GW			10	
CMS-EE-EL2	Computational Modelling in Energy Economics Advanced		4 LHPW* GW*	4 LHPW* GW*		10	
<b>Computational Engineering</b>							<b>50</b>
CMS-CMA-FEM	Engineering Finite Element Methods	3/1/0/0/0/0/0 PEW GW				5	
CMS-CE-EL1	Computational Engineering Basics		4 LHPW* GW*	4 LHPW* GW*		10	
CMS-CE-AT	Advanced Topics in Finite Element Analysis		2/2/0/0/0/0/0 GW			5	
CMS-CE-MBD	Multibody Dynamics		2/2/0/0/0/0/0 GW			5	
CMS-CE-MP	Multifield Problems		2/2/0/0/0/0/0 GW			5	
CMS-CE-CFD	Computational Fluid Dynamics	2/2/0/0/0/0/0 GW				5	

CMS-CE-EL2	Computational Engineering Advanced		6 LHPW* GW*	6 LHPW* GW*		15	
<b>Logical Modeling</b>							<b>50</b>
CMS-LM-BAS	Foundations of Logical Modelling	8 LHPW* GW*				10	
CMS-LM-MOC	Models of Computation		6 LHPW* GW*	6 LHPW* GW*		15	
CMS-LM-AI	Artificial Intelligence		6 LHPW* GW*	6 LHPW* GW*		15	
Choice one module from 2:							
CMS-LM-ADV	Advanced Logical Modelling		8 LHPW* GW*			10	
CMS-LM-TEA	Logical Modelling Teamproject		0/0/0/0/8/0/0 2GW			10	

\* The type and extent of the individual forms of teaching and learning, as well as the number of examination performances vary, depending on the student's choice.

**Explanations:**

- L Lecture
- E Exercise
- S Seminar
- T Tutorial
- M Mobility window
- RP Research project
- P Practical
- LC Language Course
- PEW Preliminary Examination Work
- CP Credit Points
- GW Graded Work