

## Attachment 2, Part 1

### Study Schedule

the module type and its duration (hours per week (SWS)) 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	Cred.	Total Cred.
		L/E/S/T/PP/I/LC	L/E/S/T/PP/I/LC	L/E/S/T/PP/I/LC			
<b>Compulsory Modules of Basic Education</b>							<b>25</b>
CMS-SKL	Soft Skills	4 L/E/S/T/PP/I/LC* thereof at least 2 LC				5	
CMS-PROJ	Research Project			0/0/0/0/12/0/0 2EP		15	
CMS-SEM	Literature Review in Computational Modelling		0/0/4/0/0/0/0 2EP			5	
<b>Elective Compulsory Modules of the Basic Education (3 of 6) (for the track of "Computational Life Science" 3 of 5)</b>							<b>15</b>
CMS-COR-MLD	Machine Learning and Data Mining	2/2/0/0/0/0/0 EP				5	
CMS-COR-HPC	Parallel Programming and High-Performance Computing	2/2/0/0/0/0/0 EP				5	
CMS-COR-NUM	Basic Numerical Methods	2/2/0/0/0/0/0 EP				5	
CMS-COR-SAP	Stochastics and Probability	2/1/0/1/0/0/0 EP				5	
CMS-COR-VIZ	Data Visualisation	2/2/0/0/0/0/0 EP				5	
CMS-COR-SED	Statistical Principles and Experimental Design (not selectable for the Track Computational Life Science)	2/2/0/0/0/0/0 EP				5	
<b>Compulsory elective for professional</b>							

<b>profiling</b>						
Choice of a track of five 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 (hours per week (SWS)) 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	Cred.	Total Cred.
		L/E/S/T/PP/I/LC	L/E/S/T/PP/I/LC	L/E/S/T/PP/I/LC			
<b>Choice of a track from five options</b>							
<b>Computational Life Science</b>							<b>50</b>
CMS-CLS-ELG	Computational Life Science Basics		4 L/E/S/T/PP/I*	4 L/E/S/T/PP/I*		10	
CMS-CLS-IBC	Introduction to Biochemistry	2/0/0/0/0/2/0 EP				5	
CMS-CLS-ABI	Applied Bioinformatics		2/2/0/0/0/0/0 EP			5	
CMS-CLS-ELV	Computational Life Science Advanced			8 L/E/S/T/PP/I*		10	
CMS-CLS-TEA	Computational Life Science Teamproject		0/0/0/0/8/0/0 3EP			10	
CMS-CLS-MOS	Modelling and Simulation in Biology		2/2/0/0/0/0/0 EP			5	
CMS-COR-SED	Statistical Principles and Experimental Design	2/2/0/0/0/0/0 EP				5	

<b>Computational Mathematics</b>							<b>50</b>
CMS-CMA-ELG	Computational Mathematics Basics	4 L/E/S/T/PP/I*	4 L/E/S/T/PP/I*			10	
CMS-CMA-FEM	Finite Element Method	3/1/0/0/0/0/0 PEP EP				5	
CMS-CMA-MODSEM	Modelling Case Studies		4 S/90 Hours PP EP			10	
CMS-CMA-PROJ	Computational Mathematics Project			2 S/60 Hours PP EP		5	
CMS-CMA-ELV1	Advanced Computational Mathematics		4 L/E/S/T/PP/I*	4 L/E/S/T/PP/I*		10	
CMS-CMA-ELV2	Computational Mathematics Applications		4 L/E/S/T/PP/I*	4 L/E/S/T/PP/I*		10	

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

\* 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

PP Project processing

I Internship

LC Language Course

PEP Preliminary Examination Performance

CP Credit Points

EP Examination Performance