

# Course of Study Computational Science and Engineering (Study Cohort w14)

Sample course plan E Master Computational Science and Engineering (IIWMS)  
Specialisation Systems Engineering and Robotics

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1			Semester 2			Semester 3			Semester 4																	
		Form	Hrs/wk		Form	Hrs/wk		Form	Hrs/wk		Form	Hrs/wk															
1	<b>Numerical Mathematics II</b>			<b>Nonlinear Optimization</b>			<b>Research Project and Seminar</b>			<b>Master Thesis</b>																	
2													Numerical Mathematics II	VL	2	Nonlinear Optimization	VL	3	Seminar	SE	2						
3													Numerical Mathematics II	UE	2	Nonlinear Optimization	UE	1									
4																											
5																											
6																											
7	<b>Digital Image Analysis</b>			<b>Pattern Recognition and Data Compression</b>																							
8													Digital Image Analysis	VL	4	Pattern Recognition and Data Compression	VL	4									
9																											
10																											
11	<b>Robotics</b>			<b>Computer Graphics and Animation</b>																							
12																											
13																											
14													Robotics: Modelling and Control	VL	3	Computer Graphics and Animation	VL	2									
15							Robotics: Modelling and Control	UE	2				Computer Graphics and Animation	PS	2												
16																											
17	<b>Intelligent Systems in Medicine</b>			<b>Robotics and Navigation in Medicine</b>			<b>Control Systems Theory and Design</b>																				
18																											
19																											
20													Intelligent Systems in Medicine	VL	2	Robotics and Navigation in Medicine	VL	2	Control Systems Theory and Design	VL	2						
21													Intelligent Systems in Medicine	UE	1	Robotics and Navigation in Medicine	UE	1	Control Systems Theory and Design	UE	2						
22													Intelligent Systems in Medicine	PS	2	Robotics and Navigation in Medicine	PS	2									
23							<b>Mathematical Image Processing</b>																				
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31																			<b>Numerical Methods for Medical Imaging</b>								
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Business & Management (from catalogue) - 6LP																											
Nontechnical Elective Complementary Courses for Master (from catalogue) - 6LP																											

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

