Computer Science MSc (Software and Service Architectures specialization)

Compulsory subjects

Code	Subject	Subject prerequisite	Lecture (L)	Practice (Pr)	Credit	Semester *	Recommended semester			
							1st	2nd	3rd	4th
IPM-22feszPCMSG	Preparation course for master studies and developing learning skills Pr. (5*)		0	3	2	A,S	2			
IPM-22fRMEG	Research methodology L+Pr. **		1	2	5	A,S	5			
IPM-22feszTPE	Theory of programming L.	(6*)	2	0	3	A	3			
IPM-22feszTPG	Theory of programming Pr.		0	2	3	A	3			
IPM-22fASTE	Advanced Software Technology L. **		2	0	4	S		4		
IPM-22fDAAE	Design and analysis of algorithms L. **		2	0	4	S		4		
IPM-22feszDAAG	Design and analysis of algorithms Pr.		0	2	3	S		3		
IPM-22feszFSE	Formal semantics L	(6*)	2	0	3	S		3		
IPM-22feszFSG	Formal semantics Pr.		0	2	3	S		3		
IPM-22feszSQTE	Software quality and testing L.	(6*)	2	0	3	S		3		
IPM-22feszSQTG	Software quality and testing Pr.		0	2	3	S		3		
IPM-22feszSALAB1	Software Technology Lab I		0	4	5	A,S		5		
IPM-22feszDDSE	Design of distributed systems L.	(6*)	2	0	3	A			3	
IPM-22feszDDSG	Design of distributed systems Pr.		0	2	3	A			3	
IPM-22feszPME	Project Management L.		2	0	2	A			2	
IPM-22feszSALAB2	Software Technology Lab II		0	4	5	A,S			5	
	Compulsory subject credits in total				**54**		**13**	**28**	**13**	
	Elective subjects				6			2	4	
	Compulsory elective subjects ***				30		17		13	
IPM-22fTHCONS	**Thesis consultation**				30	A,S				30
IPM-22fPRG	**Internship (4*)**				0					
	Total credits per semester						30	30	30	30
	Total credits				120					

* Subjects are offered either in the Autumn semester (A) or in the Spring semester (S) or in both (A,S).

** Core subject of the Computer Science MSc study programme regardless the specialization.

*** From the list of compulsory elective subjects, students are required to fulfill subjects in the amount of 30 credits.

(4*) The required duration of the internship is 6 weeks (240 hours). The requirement of internship is fulfilled by the completion of subjects Software Technology Lab I&II.

(5*) The accomplishment is mandatory. Credits are counted as compulsory subject credits.

(6*) Fulfilment of the practice part is the prerequisite of obtaining a grade in the lecture part.

Compulsory elective subjects of Software and Service Architectures specialization

Code	Subject	Subject prerequisite	Lecture (L)	Practice (Pr)	Credit	Semester *	Recommended semester			
							1st	2nd	3rd	4th
IPM-22feszAAE	Advanced Algorithms L.	(6*)	0	2	3	A	3			
IPM-22feszAAG	Advanced Algorithms Pr.		2	0	3	A	3			
IPM-22feszAJPE	Advanced Java programming L.	(6*)	0	2	3	A	3			
IPM-22feszAJPG	Advanced Java programming Pr.		2	0	3	A	3			
IPM-22feszIDSEG	Introduction to Data Science L+Pr.		2	2	6	A,S	6			
IPM-22feszMCE	Models of computation L.	(6*)	2	0	2	A	2			
IPM-22feszMCG	Models of computation Pr.		0	2	3	A	3			
IPM-22feszPAIEG	Principles of artificial intelligence L+Pr.		2	2	6	A	6			
IPM-22feszCISE	Complex information systems L.	(6*)	2	0	3	S		3		
IPM-22feszCISG	Complex information systems Pr.		0	2	3	S		3		
IPM-22feszFUNLEG	Functional Languages L+Pr.		2	2	6	S		6		
IPM-22feszMLEG	Machine Learning L+Pr.	IPM-22feszIDSEG	2	2	6	S		6		
IPM-22feszSESCE	Service Science L.	(6*)	2	0	3	S		3		
IPM-22feszSESCG	Service Science Pr.		0	2	3	S		3		
IPM-22feszADSEG	Analysis of distributed systems L+Pr.		2	2	6	A			6	
IPM-22feszICSE	Introduction to Computer Security L.	(6*)	2	0	3	A			3	
IPM-22feszICSG	Introduction to Computer Security Pr.		0	2	3	A			3	
IPM-22feszMTAIEG	Methods and tools for AI applications L+Pr.		2	2	6	A			6	
IPM-22feszSEAPE	Scalable enterprise applications L.	(6*)	2	0	3	A			3	
IPM-22feszSEAPG	Scalable enterprise applications Pr.		0	2	3	A			3	

From the list of compulsory elective subjects, students are required to fulfill subjects in the amount of 30 credits.

The accomplishment of the following listed subjects is mandatory only for EIT students.
Students do not participating in the EIT Digital Master programme can obtain elective subject credits for fulfilling them:

IPM-22fI&EBEG	I&E Basics
IPM-22fI&EBDL1E	Business Development Lab I.
IPM-22fI&EBDL1G	Business Development Lab I.
IPM-22fI&EBDL2E	Business Development Lab II.
IPM-22fI&EBDL2G	Business Development Lab II.
IPM-22fI&EIAOEEG	Innosocial aspects of entrepreneurship
IPM-22fI&ETSSG	Thematic Summer Schools with I&E project
IPM-22fI&ESTEG	I&E Study