

## Computer Science MSc (Software Architecture Specialization 2022), Spring semester

### Core Courses

Code	Courses	Lecture (L)	Labor	Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22fRMEG	Research methodology L+Pr.*	1	2	0	2	XPG	5	1		2+2+0+1			
IPM-22fASTE	Advanced Software Technology L.*	2	0	0	2	E	4	1		2+0+0+2			
IPM-22fDAAE	Design and analysis of algorithms L.*	2	0	0	2	E	4	1		2+0+0+2			
IPM-22fPRG	Internship						0	2-4					240 hours
	<b>Core course credits</b>						<b>13</b>			<b>13</b>	<b>0</b>		

## Compulsory Courses of the Specialization

Code	Courses	Lecture (L)	Labor	Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22feszDAAG	Design and analysis of algorithms*	0	0	2	1	PG	3	1		0+0+2+1			
IPM-22feszPCMSG	Preparation course for master studies and developing learning skills	0	0	3	0	PG	2	1		0+0+3+0			
IPM-22feszSALAB1	Software Technology Lab I.	0	4	0	1	PG	5	1		0+4+0+1			
IPM-22feszDDSE	Design of Distributed Systems*	2	0	0	1	E	3	2	IPM-22feszDDSG		2+0+0+1		
IPM-22feszDDSG	Design of Distributed Systems*	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fpiPME	Project Management	2	0	0	0	E	2	2			2+0+0+0		
IPM-22feszTPE	Theory of programming*	2	0	0	1	E	3	2	IPM-22feszTPG (week)		2+0+0+1		
IPM-22feszTPG	Theory of programming*	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22feszFSE	Formal semantics*	2	0	0	1	E	3	3	IPM-22feszFSG (week)			2+0+0+1	

IPM-22feszfSG	Formal semantics*	0	0	2	1	PG	3	3				0+0+2+1		
IPM-22fesfSQTE	Software quality and testing*	2	0	0	1	E	3	3	IPM-22fesfSQTG (week)			2+0+0+1		
IPM-22fesfSQTG	Software quality and testing*	0	2	0	1	PG	3	3				0+2+0+1		
IPM-22fesfSALAB2	Software Technology Lab II.	0	4	0	1	PG	5	4					0+4+0+1	
	<b>Compulsory course credits</b>						<b>41</b>				<b>10</b>	<b>14</b>	<b>12</b>	<b>5</b>
	<b>Compulsory elective courses credits</b>						<b>30</b>				<b>6</b>	<b>12</b>	<b>12</b>	
<b>IPM-22fERASMUS</b>	<b>Erasmus mobility</b>						<b>max 24 credits</b>	<b>3</b>					<b>max 24 credits</b>	
	<b>Optional course</b>						<b>6</b>	<b>3</b>					<b>6+0+0</b>	
<b>IPM-22fTHCONS</b>	<b>Thesis consultation</b>			<b>5</b>	<b>10</b>	<b>PG</b>	<b>30</b>	<b>4</b>						<b>signature</b>
	<b>Summa credit in semester</b>										<b>29</b>	<b>26</b>	<b>30</b>	<b>35</b>
	<b>Summa credit</b>						<b>120</b>							

### Compulsory elective courses

Code	Courses	Lecture (L)	Labor	Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22fes>IDSEG	Introduction to Data Science	2	2	0	2	XE	6	1		2+0+2+2			
IPM-22fes>AJPE	Advanced Java programming*	2	0	0	1	E	3	2	IPM-22fes>AJPG (week)		2+0+0+1		
IPM-22fes>AJPG	Advanced Java programming*	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fes>AAE	Advanced Algorithms	2	0	0	1	E	3	2	IPM-22fes>AAG (week)		2+0+0+1		
IPM-22fes>AAG	Advanced Algorithms	0	0	2	1	PG	3	2			0+2+0+1		
IPM-22fes>ADSEG	Analysis of distributed systems*	2	0	2	2	XPG	6	2			2+0+2+2		
IPM-22fes>ICSE	Introduction to Computer Security	2	0	0	1	E	3	2	IPM-22fes>ICSG (week)		2+0+0+1		
IPM-22fes>ICSG	Introduction to Computer Security	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fes>MCE	Models of Computation	2	0	0	0	E	2	2	IPM-22fes>MCG (week)		2+0+0+0		
IPM-22fes>MCG	Models of Computation	0	0	2	1	PG	3	2			0+0+2+1		

IPM-22feszMtAIEG	Methods and tools for AI applications	2	2	0	2	XE	6	2			2+2+0+2		
IPM-22fesZPAIEG	Principles of artificial intelligence	2	2	0	2	XE	6	2			2+2+0+2		
IPM-22fesZSEAPE	Scalable enterprise applications*	2	0	0	1	E	3	2	IPM-22fesZSEAPG (week)		2+0+0+1		
IPM-22fesZSEAPG	Scalable enterprise applications*	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fesZCISE	Complex information systems	2	0	0	1	E	3	3	IPM-22fesZCISG (week)			2+0+0+1	
IPM-22fesZCISG	Complex information systems	0	2	0	1	PG	3	3				0+2+0+1	
IPM-22fesZFUNLEG	Functional Languages	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22fesZMLEG	Machine Learning	2	2	0	2	XE	6	3	IPM-22fesZIDSEG			2+2+0+2	
IPM-22fesZSESCE	Service Science	2	0	0	1	E	3	3	IPM-22fesZSESCG (week)			2+0+0+1	
IPM-22fesZSESCG	Service Science	0	2	0	1	PG	3	3				0+2+0+1	

## I&E modul

Code	Courses	Lecture (L)	Labor	Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22fi&EBEG	I&E Basics	2	0	2	2	XPG	6	1		2+0+2+2			
IPM-22fi&EBDL1G	Business Development Lab I.	0	0	2	2	PG	4	1		0+0+2+2			
IPM-22fi&EBDL2G	Business Development Lab II.	0	0	2	2	PG	4	2			0+0+2+2		
IPM-22fi&EIAOEEG	Innosocial aspects of the entrepreneurship	2	0	2	2	XPG	6	2			2+0+2+2		
IPM-22fi&ETSSG	Thematic Summer Schools with I&E project	1	0	1	2	XPG	4	2			1+0+1+2		
IPM-22fi&ESTEG	I&E Study	2	0	2	2	XPG	6	3				2+0+2+2	
	<b>Summa credit in semester</b>									<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>
	<b>Summa credit</b>						<b>120</b>						

**PG: Practice Grade   E: Exam Grade   XPG: Lecture+Practice with Practical Grade   XE: Lecture+Practice with Exam**

- Az EIT-es hallgatók számára I&E modul mellett a \*-gal megjelölt tárgyak elvégzése kötelező.
- A hallgatók a Software Architecture Lab I. és II. teljesítésével kiváltják a szakmai gyakorlatot.
- Az EIT-s hallgatók az utolsó félévükben végzik a szakmai gyakorlatot a diplomamunka készítésével párhuzamosan

- EIT students are required to complete the Innovation&Entrepreneurship (I&E) module and required to complete all subjects indicated by asterisk (\*) in the sample curriculum of the specialization
- Computer Science Master course students with Software Architecture specialization are entitled to fulfill the requirements of the internship by the completion of Software Architecture Lab I. and Lab II. courses
- EIT students fulfill the requirements of the internship and complete their thesis work (parallelly), in the last semester of their academic studies.