

Computer Science MSc (Data Science Specialization 2022)

Core Courses

Code	Courses	Lecture (L)		Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
		Labor											
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	2			2+0+0+2		
IPM-22fDAAE	Design and analysis of algorithms L.*	2	0	0	2	E	4	2			2+0+0+2		
IPM-22fPRG	Internship						0	2-4					240 hours
	Core course credits						13			5	8		

Compulsory Courses of the Specialization

Code	Courses	Lecture (L)		Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
		Labor											
IPM-22fatDSEG	Introduction to Data Science*	2	2	0	2	XE	6	1		2+2+0+2			
IPM-22fatTAMEG	Topics in Applied Mathematics*	2	0	2	1	XPG	5	1		2+0+2+1			
IPM-22fatDSLALB1	Data Science Lab I	0	0	2	2	PG	4	2	IPM-22fatDSEG		0+0+2+2		
IPM-22fatMLEG	Machine Learning*	2	2	0	2	XE	6	2	IPM-22fatDSEG		2+2+0+2		
IPM-22fatODSEG	Numerical Methods for Optimization	2	2	0	2	XPG	6	2			2+2+0+2		
IPM-22fatDNDEG	Deep Network Development*	2	2	0	2	XE	6	1		2+2+0+2			
IPM-20fatDSLALB2	Data Science Lab II.	0	0	2	4	XPG	6	3				0+0+2+4	
IPM-22fatOSTEG	Open-source Technologies for Data Science*	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22fatSMEG	Stream Mining*	2	0	2	2	XE	6	3				2+0+2+2	
	Compulsory course credits						51			11	16	24	
	Compulsory elective courses credits						20			12	4	4	
	Optional course						6	1,2,3		2+0+0	2+0+0	2+0+0	
IPM-22fTHCONS	Thesis consultation			5	10	PG	30	4					signature
	Summa credit in semester									30	30	30	30
	Summa credit						120						

Compulsory elective courses

Code	Courses	Lecture (L)		Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
		Lecture	Labor										
IPM-22fatPREPG	Preparation course for master studies and developing learning skills	0	0	3	0	PG	2	1		0+0+3+0			
IPM-22fatTPE	Theory of programming	2	0	0	1	E	3	1		2+0+0+1			
IPM-22fatTPG	Theory of programming	0	2	0	1	PG	3	1		0+2+0+1			
IPM-22fatCISE	Complex information systems	2	0	0	1	E	3	2			2+0+0+1		
IPM-22fatCISG	Complex information systems	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fatDMDBE	Data models and databases*	2	0	0	1	E	2	2			2+0+0+1		
IPM-22fatDMDBG	Data models and databases*	0	2	0	1	PG	2	2			0+2+0+1		
IPM-22fatAMLEG	Advanced Deep Network Development	2	2	0	2	XE	6	3	IPM-22fatDNDEG			2+2+0+2	
IPM-22fatNSEG	Network Science*	2	0	2	2	XE	6	3				2+0+2+2	

I&E modul

Code	Courses	Lecture (L)		Practice (Pr)	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
		Lecture	Labor										
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	
	Summa credit in semester									30	30	30	30
	Summa credit						120						

- Az EIT-es hallgatók számára I&E modul mellett a *-gal megjeölt tárgyak elvégzése kötelező.
- A hallgatók a Data Science 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 Data Science specialization are entitled to fulfill the requirements of the internship by the completion of Data Science 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.

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