

Computer Science MSc (Software Architecture Specialization from 2022)

Clarifications regarding the curriculum

Courses marked with an asterisk (*) in the curriculum are also offered in the Computer Science BSc programme under different subject codes. The following rules apply to such courses:

- If you completed a subject during the Computer Science BSc programme and had it counted into your degree requirements (i.e. included in the 180 credits required for graduation), we will accept its completion. However, you may not register for the same course again in the MSc programme, nor may it be recognised through a credit transfer procedure.
- If such a subject is a compulsory subject in the MSc programme, it will automatically be regarded as completed for the purposes of graduation. In this case, you must take another subject from the compulsory elective subjects offered within your specialisation, in the same number of credits.
- If you completed the course during your BSc studies but did **not** have it counted in the 180 credits required for graduation (i.e. it was not listed in your graduation application either as a compulsory elective subject or as an elective subject, and it was not one of your compulsory subjects), you may transfer it to the MSc programme through a [credit transfer procedure](#) and have it recognised as a compulsory elective subject within your specialisation.

Preliminary Credit Assessment at Admission

Students who, during the preliminary credit assessment conducted as part of the admission process for Hungarian students or the institutional admission procedure for international students, were required by a formal decision to complete additional credits must fulfil the missing prerequisite knowledge requirements **in parallel with their Master's studies and within two semesters of admission**.

The subjects to be completed as part of this credit supplementation requirement are determined by the **Head of the Specialisation, Dr. Tamás Kozsik**.

Please note that these credits (subjects) **cannot be counted towards the 120 credits required for the completion of the MSc programme**. They must be completed **in addition to the 120 credits required for the degree**.

Information Regarding Internship

In accordance with Annex 3 of Decree No. 15/2006 (IV. 3.) of the Ministry of Education, students enrolled in the Computer Science MSc programme are required to complete a six-week internship. The internship does not carry any credits; however, its successful completion is a mandatory graduation requirement and a prerequisite for obtaining the absolutorium (pre-degree certificate).

<https://www.inf.elte.hu/en/internship-bsc-msc>

<https://www.inf.elte.hu/en/spec-info-computer-science-msc>

If a student has completed two laboratory courses with a total value of 10 credits (Software Technology Lab I & II.), they may apply for recognition of the internship requirement by submitting the following request in Neptun: IK - Accepting Laboratory Courses as Internship. If the request is approved, the completed laboratory courses may be recognised as mandatory internship requirement. More details in the Essential Guide: [Accomplishing the internship with laboratory subjects in MSc in Computer Science](#)

Also by completing [Innovation Laboratory](#), mandatory internship required may be recognised.

**Thesis consultation

<https://www.inf.elte.hu/en/guidelines-thesis-final-examination-msc>

Compulsory subjects

Code	Subject	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
ELTE-OI-AI	Start wAIrtless - Introduction to the use of Artificial Intelligence in Higher Education						0	1		online course			
IPM-22fRMEG	Research methodology L+Pr.	1	2	0	2	XPG	5	1		1+2+0+2			
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
IPM-22fesZTPE	Theory of programming*	2	0	0	1	E	3	1	IPM-22fesZTPG (weak)	2+0+0+1			
IPM-22fesZTPG	Theory of programming*	0	2	0	1	PG	3	1		0+2+0+1			
IPM-22fesZPCMSG	Preparation course for master studies and developing learning skills	0	3	0	0	PG	2	1		0+3+0+0			
IPM-22fesZPME	Project Management	2	0	0	0	E	2	1,3		2+0+0+0		2+0+0+0	
IPM-22fesZFSE	Formal semantics	2	0	0	1	E	3	2	IPM-22fesZFSG (weak)		2+0+0+1		
IPM-22fesZFSG	Formal semantics	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fesZDAAG	Design and analysis of algorithms	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22fesZSQTE	Software quality and testing	2	0	0	1	E	3	2	IPM-22fesZSQTG (weak)		2+0+0+1		
IPM-22fesZSQTG	Software quality and testing	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22fesZSALAB1	Software Technology Lab I.	0	0	4	1	PG	5	2			0+0+4+1		
IPM-22fesZDDSE	Design of Distributed Systems	2	0	0	1	E	3	3	IPM-22fesZDDSG (weak)			2+0+0+1	
IPM-22fesZDDSG	Design of Distributed Systems	0	0	2	1	PG	3	3				0+0+2+1	
IPM-22fesZSALAB2	Software Technology Lab II.	0	0	4	1	PG	5	3				0+0+4+1	

	Compulsory subjects credits						54			15	28	11	
	Compulsory elective credits						30			15	2	13	
IPM-22fERASMUS	Erasmus mobility						max 24 credits	3				max 24 credits	
	Elective credits						6	3				6+0+0	
IPM-24fTHCONS**	Thesis consultation		5		10	PG	30	4					signature
	Summa credit in semester									30	30	30	30
	Summa credit						120						

Compulsory elective subjects													
Code	Subject	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22feszAJPE	Advanced Java programming*	2	0	0	1	E	3	1	IPM-22feszAJPG (weak)	2+0+0+1			
IPM-22feszAJPG	Advanced Java programming*	0	0	2	1	PG	3	1		0+0+2+1			
IPM-22feszIDSEG	Introduction to Data Science	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22feszMCE	Models of Computation***	2	0	0	0	E	2	1	IPM-22feszMCG (weak)	2+0+0+0			
IPM-22feszMCG	Models of Computation***	0	2	0	1	PG	3	1		0+2+0+1			
IPM-22feszMCEG	Models of Computation	2	2	0	1	XE	5	1		2+2+0+1			
IPM-22feszPAIEG	Principles of artificial intelligence	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22feszAAE	Advanced Algorithms	2	0	0	1	E	3	1,3	IPM-22feszAAG (week)	2+0+0+1		2+0+0+1	
IPM-22feszAAG	Advanced Algorithms	0	2	0	1	PG	3	1,3		0+2+0+1		0+2+0+1	
IPM-22feszCISE	Complex information systems	2	0	0	1	E	3	2	IPM-22feszCISG (weak)		2+0+0+1		
IPM-22feszCISG	Complex information systems	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22feszFUNLEG	Functional Languages*	2	0	2	2	XE	6	2			2+0+2+2		

IPM-22feszMLEG	Machine Learning	2	0	2	2	XE	6	2	IPM-22feszIDSEG		2+0+2+2		
IPM-22feszSESCE	Service Science	2	0	0	1	E	3	2	IPM-22feszSESCG (weak)		2+0+0+1		
IPM-22feszSESCG	Service Science	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22feszADSEG	Analysis of distributed systems	2	2	0	2	XPG	6	3				2+2+0+2	
IPM-22feszICSE	Introduction to Computer Security	2	0	0	1	E	3	3	IPM-22feszICSG (weak)			2+0+0+1	
IPM-22feszICSG	Introduction to Computer Security	0	0	2	1	PG	3	3				0+0+2+1	
IPM-22feszMTAIEG	Methods and tools for AI applications	2	0	2	2	XE	6	3				2+0+2+2	
IPM-22feszSEAPE	Scalable enterprise applications	2	0	0	1	E	3	3	IPM-22feszSEAPG (weak)			2+0+0+1	
IPM-22feszSEAPG	Scalable enterprise applications	0	0	2	1	PG	3	3				0+0+2+1	

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

***** Discontinued subject**