

Computer Science MSc (Fintech specialization, from 2024)

Clarifications regarding the curriculum

Courses marked with two asterisks (**) 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. Bálint Molnár**.

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 (Fintech 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 wAltless - Introduction to the use of Artificial Intelligence in Higher Education						0	1		online course			
IPM-22fRMEG	Research methodology L+Pr.*	1	2	0	1	PG	5	1		1+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	4					520 hours (13 week), EIT: 240 hours (6 week)
IPM-22fIDSEG	Introduction to Data Science*	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22fpiIFE	Introduction to Finance*	2	0	0	0	E	2	1	IPM-22fpiIFG (weak)	2+0+0+0			
IPM-22fpiIFG	Introduction to Finance*	0	0	2	1	PG	3	1		0+0+2+1			
IPM-22fpiCISE	Complex information systems*	2	0	0	1	E	3	2	IPM-22fpiCISG (weak)		2+0+0+1		
IPM-22fpiCISG	Complex information systems*	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22fpiSESCE	Service Science*	2	0	0	1	E	3	2	IPM-22fpiSESCG (weak)		2+0+0+1		
IPM-22fpiSESCG	Service Science*	0	0	2	1	PG	3	2			0+0+2+1		

IPM-22fpiBIE	Business Intelligence and Data Visualization*	2	0	0	1	E	3	3	IPM-22fpiBIG (weak)			2+0+0+1	
IPM-22fpiBIG	Business Intelligence and Data Visualization*	0	0	2	1	PG	3	3				0+0+2+1	
IPM-22fpiDFISE	Development of Financial IT Systems*	2	0	0	1	E	3	3	IPM-22fpiDFISG (weak)			2+0+0+1	
IPM-22fpiDFISG	Development of Financial IT Systems*	0	0	2	1	PG	3	3				0+0+2+1	
IPM-22fpiFTLAB1	Fintech Lab I*	0	0	2	2	PG	4	3				0+0+2+2	
IPM-22fpiFTLAB2	Fintech Lab II.	0	0	4	2	PG	6	3				0+0+4+2	
	Compulsory subjects credits						58			16	20	22	
	Compulsory elective subjects credits						26			14	5	7	
IPM-22fERASMUS	Erasmus mobility						max 24 credits	3				max 24 credits	
	Elective subjects						6	2,3			5+0+0	1+0+0	
IPM-22fTHCONS***	Thesis consultation				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-22fpiDNDEG	Deep Network Development	2	0	2	0	XE	6	1		2+0+2+2			
IPM-24fpiMFCE	Mathematical foundation of cryptocurrencies	2	0	0	2	E	4	1		2+0+0+2			
IPM-22fpiPAIEG	Principles of artificial intelligence	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22fpiPCMSG	Preparation course for master studies and developing learning skills*	0	3	0	0	PG	2	1		0+3+0+0			

IPM-24fpiPETEG	Privacy enhancing technologies	1	1	0	2	XE	4	1		1+1+0+2			
IPM-22fpiDMDBE	Data models and databases	2	0	0	1	E	2	2	IPM-22fpiDMDBG (weak)		2+0+0+1		
IPM-22fpiDMDBG	Data models and databases	0	0	2	1	PG	2	2			0+0+2+1		
IPM-22fpiDRLEG	Deep Reinforcement Learning	2	0	2	2	XE	6	1			2+0+2+2		
IPM-22fpiISPEG	Information Security and Privacy	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fpiMLEG	Machine Learning	2	0	2	2	XE	6	2	IPM-22fpiDSEG		2+0+2+2		
IPM-24fpiVASG	Vulnerability analysis seminar	0	2	0	2	PG	4	2			0+2+0+2		
IPM-22fpiADNDEG	Advanced Deep Network Development	2	0	2	2	XE	6	3	IPM-22fpiDNDEG			2+0+2+2	
IPM-22fpiACEG	Affective computing	2	0	2	2	XE	6	2	IPM-22fpiDNDEG		2+0+2+2		
IPM-22fpiCOSCEG	Cognitive Science	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22fpiCOLLIEG	Collective Intelligence	2	0	2	2	PG	6	3				2+0+2+2	
IPM-22fpiCIEG	Computational Intelligence	2	0	2	2	XE	6	3				2+0+2+2	
IPM-22fpiNSEG	Network Science	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22fpiPME	Project Management	2	0	0	0	E	2	1,3		2+0+0+0		2+0+0+0	

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

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 Fintech 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 Fintech specialization are entitled to fulfill the requirements of the internship by the completion of Fintech 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.