Adattudomány MSc 2024 (Data Science MSc from 2024 September)

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 a free elective subject, and it was not one of your compulsory subjects), you may transfer it to the MSc programme through a **credit transfer procedure**. If the subject is classified as a compulsory or compulsory elective subject within the programme, it will be counted towards the corresponding category of the degree programme.

Preliminary Credit Assessment at Admission

Students who, during the preliminary credit assessment at the time of admission or as part of the institutional admission procedure, were required by an official decision to complete additional credits must complete the missing supplementary knowledge **in parallel with their Master's studies, within two semesters of admission.**
The courses required to fulfil these additional credit requirements are determined by the **programme director, Dr. Tamás Orosz.**
Please note that these courses **do not count towards the 120 credits required for completing the Master's programme.** Students must complete these additional courses **in addition to the 120 credits** required for their 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 Data 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 absolutory (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 (Data Science 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 an accomplished mandatory internship requirement. More details in the Essential Guide (applies also this training programme): **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	Subjects	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
ELTE-OI-AI	Start wAItless - Introduction to the use of Artificial Intelligence in Higher Education						0	1		online course			
IPM-24ATDNDEG	Deep Network Development	2	0	2	2	XE	6	1		2+0+2+2			
IPM-24ATIDSEG	Introduction to Data Science	2	0	2	2	XE	6	1		2+0+2+2			
IPM-24ATLEAE	Legal and ethical aspects of DS and AI	2	0	0	2	E	4	1		2+0+0+2			
IPM-24ATRMEG	Research methodology	1	2	0	2	XPG	5	1		1+2+0+2			
IPM-24ATTAMEG	Topics in Applied Mathematics	2	2	0	1	XPG	5	1		2+2+0+1			
IPM-24ATDSLAB1	Data Science Lab I.	0	2	0	2	PG	4	2	IPM-24ATIDSEG		0+2+0+2		
IPM-24ATIDSE	Introduction to Data Security	2	0	0	2	E	4	2			2+0+0+2		
IPM-24ATNMEG	Numerical Methods for Optimization	2	0	2	2	XE	6	2	IPM-24ATTAMEG		2+0+2+2		
IPM-24ATMLEG	Machine Learning	2	0	2	2	XE	6	2	IPM-24ATIDSEG		2+0+2+2		
IPM-24ATAAE	Audio Analysis	2	0	0	1	E	3	3				2+0+0+1	
IPM-24ATDSLAB2	Data Science Lab II.	0	2	0	4	PG	6	3	IPM-24ATDSLAB1			0+2+0+4	
IPM-24ATIAE	Image Analysis	2	0	0	1	E	3	3				2+0+0+1	
IPM-24ATOSTEG	Open-source Technologies for Data Science	2	0	2	2	XE	6	3				2+0+2+2	
IPM-24ATSMEG	Stream Mining	2	2	0	2	XE	6	3				2+2+0+2	
IPM-24ATTME	Text Mining	2	0	0	1	E	3	3				2+0+0+1	
	Compulsory subjects credits						**73**			**26**	**20**	**27**	

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-24ATPREPG	Preparation course for master studies and developing learning skills	0	3	0	0	PG	2	1		0+3+0+0			
IPM-24ATiSJEG	Statistics for signal processing	2	0	1	1	XPG	4	1		2+0+1+1			
IPM-24ATICNAEG	Introduction to Cloud Native Architectures	2	0	2	2	XPG	6	1,3		2+0+2+2		2+0+2+2	
IPM-24ATIDEEG	Introduction to Data Engineering	2	0	2	2	XPG	6	1,3		2+0+2+2		2+0+2+2	
IPM-24ATCTDSEG	Commercial Technologies for Data Science	1	0	2	1	XE	4	2			1+0+2+1		
IPM-24ATDMDBE	Data models and database	2	0	0	1	E	3	2	IPM-24ATDMDBG (weak)		2+0+0+1		
IPM-24ATDMDBG	Data models and database	0	0	2	1	PG	3	2			0+0+2+1		
IPM-24ATDAAE	Design and analysis of algorithms	2	0	0	2	E	4	2			2+0+0+2		
IPM-24ATRSEG	Recommender Systems	2	2	0	2	XPG	6	2			2+2+0+2		
IPM-24ATDOCEAEG	DevOps and Cloud engineering on Azure	2	0	2	2	XPG	6	2			2+0+2+2		
IPM-24ATIDSG	Introduction to Data Security	0	2	0	0	PG	2	2			0+2+0+0		
IPM-24ATADNDEG	Advanced Deep Network Depelopment	2	2	0	2	XE	6	3	IPM-24ATDNDEG			2+2+0+2	
IPM-24ATNSEG	Network Science	2	2	0	2	XE	6	3				2+2+0+2	
	Compulsory subjects credits						**73**			**26**	**20**	**27**	
	Compulsory elective subjects credits						***11***			***2***	***6***	***3***	
IPM-24ATERASMUS	**Erasmus mobility**						**max 24 credits**	**3**				**max 24 credits**	
	Elective subjects						***6***	***1,2***		***2+0+0***	***4+0+0***		

IPM-24ATTHCONS**	Thesis consultation				14	PG	30	4					PG
	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