

Course type			Course group	Course title	Neptun code	ECTS	Specialization				C	Elec tive	ECTS req.		
HCAIM	BME	BME					S1	S2	S3	S4			min.	max.	
I.															
Basic	Common	From each group, "ECTS req. min." must be completed. From each group, at most "ECTS req. max." may be recognized within the 60 HCAIM credits.	1	Applied algebra and mathematical logic (autumn)	TE90MX75	5	5	5	5	5			5	5	
				Mathematical statistics (autumn)	VISZMA11	5									
				Stochastics (autumn)	TE90MX77	5									
	Specialization-dependent		2	Machine learning (autumn)	VIMIMA27	5	5						4	5	5
				Machine learning (spring)	VIMIMA27	5									
			3	Deep learning (autumn)	VITMMA19	5	5							4	14
				Deep learning in practice with Python and LUA (autumn)		4						4			
				Deep learning in visual computing (spring)	VIIIMB10	5			5						
			4	The security of machine learning (spring)	VIHIMB09	5					5			5	10
	Trusted artificial intelligence and data analytics (spring)			VIMIMB10	5					5					
	Elective		5	Artificial intelligence and ethics (spring; also autumn in 2023)	GT41V105	2							2	2	2
			6	Artificial intelligence and law (spring and autumn)	GT55V106	2							2	2	2
			7	Artificial general intelligence (autumn)	VIMIIV22	2							2	2	2
Common	8	Project lab 2 (with AI content)		5	5	5	5	5				5	5		
		Thesis work 1 (with AI content)		10	10	10	10	10							
	9	Thesis work 2 (with HCAI content)		20	20	20	20	20				15	15		
A. HCAIM basic, total						94	50	40	45	40	10	18	45	60	
II.															
Optional	Common	Mandatory completion depending on specialization	10	Project lab 1 (with AI content)		5	5	5	5	5			0	5	
				11	Intelligent data analysis and decision support (spring)	VIMIMB09	5	5						0	5
	Business intelligence (autumn)		VIAUMA24			5									
	AI-based human-machine interaction (autumn)		VITMMA23					5							
	12		Machine learning case studies (autumn)	VITMMA18	5	5						0	5		
			Business intelligence lab (spring)	VIAUMB09			5								
	13	UX laboratory (spring)	VITMMB14					5							
		Advanced data analysis methods lab (spring)	VITMMB10	5	5							0	5		
B. HCAIM optional, total						20	20	15	5	15	0	0	0	20	
HCAIM basic + specialization optional, total													45	80	
III.															
Optional	Elective	Recognizable	14	Any HCAI related course (after prior arrangement)											
HCAIM optional, elective courses to the minimum 60 ECTS													15	0	

Specializations and responsible departments

S1	Major	Data science and artificial intelligence	Dept. of Measurement and Information Systems (MIT) - Dept. of Telecommunications and Media Informatics (TMIT)
S2		Software development	Dept. of Automation and Applied Informatics (AAIT)
S3		Visual informatics	Dept. of Control Engineering and Information Technology (IIT)
S4	Minor	User experience – UX and interaction	Dept. of Telecommunications and Media Informatics (TMIT)