

**Computer Science for Autonomous Systems MSc
Spring semester**

Core Courses

Code	Courses	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22AUTRMG	Research methodology L+Pr.	1	2	0	2	XPG	5	1		1+2+0+2			
IPM-22AUTAIPAEG	Deep Reinforcement Learning L+Pr.*	2	2	0	2	XPG	6	1		2+2+0+2			
IPM-22AUTDAAE	Design and Analysis of Algorithms L.*	2	0	0	2	E	4	1		2+0+0+2			
IPM-22AUTIDSEG	Introduction to Data Science L+Pr.	2	0	2	2	XE	6	1		2+2+0+2			
IPM-22AUTCVEG	3D Computer Vision L+Pr.*	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22AUTISPE	Image and Signal Processing L.*	2	0	0	1	E	3	2	IPM-22AUTISPG (weak)		2+0+0+1		
IPM-22AUTISPG	Image and Signal Processing Pr.*	0	0	2	1	PG	3	2			0+0+2+1		
IPM-22AUTIDSEG	Introduction to Vehicles and Sensors L.+Pr.*	2	1	0	1	XE	4	2			2+1+0+1		
IPM-22AUTNMEG	Numerical Methods for Optimization L+Pr.	2	0	2	2	PG	6	3				2+0+2+2	
IPM-22fPRG	Internship						0	2-4					240 hours
	Core course credits						43			21	16	6	

Compulsory Elective Courses of the Specialization

Code	Courses	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
IPM-22AUTASTE	Advanced Software Technology L.	2	0	0	2	E	4	1		2+0+0+2			
IPM-22AUTAUSLAB1	AUS Lab I.	0	0	3	2	PG	5	1		0+0+3+2			
IPM-22AUTDAAG	Design and analysis of algorithms Pr.	0	2	0	1	PG	3	1		0+2+0+1			
IPM-22AUTDNDEG	Deep Network Development*	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22AUTPREPG	Preparation course for master studies and developing learning skills Pr.*	0	3	0	0	PG	2	1		0+3+0+0			
IPM-22AUTTAMEG	Topics in Applied Mathematics L+Pr.	2	2	0	1	XPG	5	1		2+2+0+1			
IPM-22AUTSSFEG	3D Sensing and Sensor Fusion L.+Pr.*	2	2	0	2	XE	6	2			2+2+0+2		
IPM-22AUTAAE	Advanced Algorithms L.	2	0	0	1	E	3	2	IPM-22AUTAAG (weak)		2+0+0+1		
IPM-22AUTAAG	Advanced Algorithms Pr.	0	2	0	1	PG	3	2			0+2+0+1		
IPM-22AUTADLEG	Advanced Deep Network Development L+Pr.*	2	2	0	2	XE	6	2	IPM-22AUTDNDEG		2+2+0+2		
IPM-22AUTAUSLAB2	AUS Lab II	0	0	3	2	PG	5	2			0+0+3+2		
IPM-22AUTPHFTG	Human Factors in Traffic Environment Pr.*	0	2	0	0	PG	2	2			0+2+0+0		
IPM-22AUTIVPEG	Image and Video Processing L.+Pr.*	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22AUTLFADE	Legal Framework for Autonomous Driving L.	2	0	0	0	E	2	2			2+0+0+0		
IPM-22AUTPME	Project Management L.	2	0	0	0	E	2	2			2+0+0+0		
IPM-22AUTSCTE	System and Control Theory L.	2	0	0	1	E	3	2	IPM-22AUTSCTG (weak)		2+0+0+1		
IPM-22AUTSCTG	System and Control Theory Pr.	0	0	2	1	PG	3	2			0+0+2+1		

IPM-23AUTi3DCPAEG	3D point cloud processing and analysis	2	2	0	2	XE	6	2			2+2+0+2	
IPM-22AUTCGE	Computer graphics L.	2	0	0	1	E	3	3	IPM-22AUTCGG (weak)			2+0+0+1
IPM-22AUTCGG	Computer graphics Pr.	0	2	0	1	PG	3	3				0+0+2+1
IPM-22AUTERTSEG	Embedded and Real-Time Systems L+Pr.*	2	0	2	2	XE	6	3				2+0+2+2
IPM-22AUTSQTE	Software quality and testing L.	2	0	0	1	E	3	3	IPM-22AUTSQTG (weak)			2+0+0+1
IPM-22AUTSQTG	Software quality and testing Pr.	0	0	2	1	PG	3	3				0+0+2+1
IPM-22AUTTHESIS	Thesis consultation		1		0	PG	30	4				signature
	Optional course						6	3				6+0+0
	Compulsory elective courses credits						41			9	14	18
IPM-22AUTERASMUS	Erasmus mobility						max 24 credits	3				max 24 credits
	Summa credit in semester									30	30	30
	Summa credit						120					

I&E modul													
Code	Courses	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: Practical Grade E: Exam 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.
- 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.
- EIT students fulfill the requirements of the internship and complete their thesis work (parallelly), in the last semester of their academic studies.