

**Computer Science MSc (Artificial Intelligence Specialization 2022), Spring semester**

**Compulsory subjects**

Code	Subject	Lecture (L)	Practice (Pr)	Labor	Consultation	Requirement	Credit	Semester	Subject requirement	1st Semester	2nd Semester	3rd Semester	4th Semester
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	1		2+0+0+2			
IPM-22fDAAE	Design and analysis of algorithms L.	2	0	0	2	E	4	1		2+0+0+2			
IPM-22fPRG	Internship						0	2-4					240 hours
IPM-22fmiDNDEG	Deep Network Developments	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22fmiMTAAEG	Methods and tools for AI applications	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fmiPAIEG	Principles of artificial intelligence	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fmiDRLEG	Deep Reinforcement Learning	2	0	2	2	XCA	6	3	IPM-22fmiDNDEG			2+0+2+2	
	<b>Compulsory credits</b>						<b>37</b>			<b>19</b>	<b>12</b>	<b>6</b>	
	<b>Compulsory elective credits</b>						<b>47</b>			<b>13</b>	<b>16</b>	<b>18</b>	
<b>IPM-22fERASMUS</b>	<b>Erasmus mobility</b>						<b>max 24 credits</b>	<b>3</b>				<b>max 24 credits</b>	
	<b>Elective credits</b>						<b>6</b>	<b>3</b>				<b>6+0+0</b>	
<b>IPM-24fTHCONS</b>	<b>Thesis consultation</b>				<b>10</b>	<b>PG</b>	<b>30</b>	<b>4</b>					<b>signature</b>
	<b>Summa credit in semester</b>									<b>32</b>	<b>28</b>	<b>30</b>	<b>30</b>
	<b>Summa credit</b>						<b>120</b>						

**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-22fmiIDSEG	Introduction to Data Science	2	0	2	2	XE	6	1		2+0+2+2			
IPM-22fmiPREPG	Preparation course for master studies and developing learning skills	0	3	0	0	PG	2	1		0+3+0+0			

IPM-22fmiTAMEG	Topics in Applied Mathematics	2	2	0	1	PG	5	1		2+2+0+1			
IPM-22fmiCVEG	3D Computer Vision	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fmiAMLEG	Advanced Deep Network Development	2	2	0	2	XE	6	2	IPM-22fmiDNDEG		2+2+0+2		
IPM-22fmiACEG	Affective computing	2	0	2	2	XE	6	2	IPM-22fmiDNDEG		2+0+2+2		
IPM-22fmiAIPLAB1	AI Project Lab I.	0	0	2	2	PG	4	2			0+0+2+2		
IPM-22fmiAIPLAB2	AI Project Lab II.	0	0	4	2	PG	6	2			0+0+4+2		
IPM-22fmiROBEG	AI Robotics	2	0	2	2	XE	6	2	IPM-22fmiDNDEG		2+0+2+2		
IPM-22fmiCOSCEG	Cognitive Science	2	2	0	2	XE	6	3				2+2+0+2	
IPM-22fmiCOLLIEG	Collective Intelligence	2	0	2	2	PG	6	2			2+0+2+2		
IPM-22fmiCIEG	Computational Intelligence	2	0	2	2	XE	6	2			2+0+2+2		
IPM-22fmiEIEG	Embodied Intelligence	2	0	2	2	XE	6	2			2+0+2+2		
IPM-23fmiSJEG	Statistics for signal processing	2	1	0	1	XPG	4	2			2+1+0+1		
IPM-23fmi3DCPAEG	3D point cloud processing and analysis	2	2	0	2	XE	6	2			2+2+0+2		
IPM-24fmiLEAE	Legal and ethical aspects of DS and AI	2	0	0	2	E	4	2			2+0+0+2		
IPM-22fmiNLPEG	<i>Natural Language Processing (Discontinued subject)</i>	2	0	2	2	XE	6	2	IPM-22fmiDNDEG		2+0+2+2		
IPM-23fmiNLPFMEG	Natural Language Processing and Language-based Foundation Models	4	0	4	4	XE	12	1-4	IPM-22fmiDNDEG	4+0+4+4	4+0+4+4	4+0+4+4	4+0+4+4
IPM-24fmiGNNEG	Graph Neural Networks	2	2	0	2	XE	6	1-4		2+2+0+2	2+2+0+2	2+2+0+2	2+2+0+2
IPM-25fmiLPENG	I Learn with Prompt Engineering	0	2	0	0	XE	2	1-4		0+2+0+0	0+2+0+0	0+2+0+0	0+2+0+0
IPM-22fmiGTEG	Game theory	2	2	0	2	XCA	6	3				2+2+0+2	
IPM-22fmiMLEG	Machine Learning	2	0	2	2	XE	6	3	IPM-22fmiIDSEG			2+0+2+2	
IPM-22fmiMASEG	Multi-agent systems	2	0	2	2	XE	6	3				2+0+2+2	
IPM-22fmiLPE	Logic programming.	2	0	0	1	XE	3	3	IPM-22fmiLPG (weak)			2+0+0+1	
IPM-22fmiLPG	Logic programming.	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 XCA: Practice with continuous assessment**