

Undergraduate programme - COMPUTER SCIENCE - study mode: full-time

Applicable to students admitted in the academic year 2025/26

	Course Name	code	hrs.		1st YR		2nd YR		3rd YR		4th YR		ECTS credit
			lect	class/lab	1	2	3	3	5	6	7		
1	Calculus	AM	30	30	EZ								5
2	Foundations of Java Programming	PPJ	30	60	EZ								6
3	Computer Techniques and Architecture	TAK	30	0	E								4
4	Introduction to Management	WDZ	30T	30	Z								3
5	Introduction to Information Systems	WSI	16	30	EZ								5
6	History and Culture of Japan	HKJ	30	0	Z								2
7	English	ANG	0	60	Z								3
8	Occupational Health and Safety	BHP	4	0	Z								0
9	Linear Algebra with Geometry	ALG	30	30		EZ							5
10	Discrete Mathematics	MAD	30	30		EZ							5
11	Relational Databases	RBD	30	30		EZ							5
12	Fundamentals of Python programming	PPY	30	30	Z								4
13	Object Oriented-Programming and Graphical User Interface	GUI	30	30	Z								4
14	Operating Systems	SOP	30	15+15int	Z								4
15	English	ANG	0	60	Z								3
16	Algorithms and Data Structures	ASD	30	30			EZ						5
17	Statistical Data Analysis	SAD	30	30			EZ						5
18	Database Systems	SBD	30	30			EZ						5
19	Digital Systems and Foundations of Electronics	SYC	30	30			Z						4
20	Universal Programming Techniques	UTP	30	30			Z						4
21	Computer Networks and Network Programming in Java	SKJ	30	30			EZ						5
22	English	ANG	0	60			Z						3
23	Artificial Intelligence Tools	NAI	30	30				EZ					5
24	Information Systems Security	BSI	30	30				EZ					5
25	Physical Education	WF	0	30				Z					0
26	Information Systems Design	PRI	30	30				EZ					5
27	Legal Foundations of Business	PPB	16int	0				Z					2
28	Human-Computer Interaction	ICK	30	30				Z					4
29	Foreign Language	LEK	0	60				Z					3
Elective courses													
O	Foundations of Computer Simulations *	PSM	30	30				EZ					4
O	Database Applications	APBD	30	30				EZ					4
O	Embedded Systems *	SWB	30	30				EZ					4
O	Distributed Programming Technologies	TPO	30	30				EZ					4
30	Project 1 (for each specialization)	PRO1	30	30					Z				7
31	Specialization-specific course 1	/	30	30					EZ				5
32	Computer Graphics	GRK	30	30					EZ				6
33	Software Engineering	BYT	30	30					EZ				5
43	Multimedia	MUL	30	30					Z				5
35	Foreign Language	LEK	0	60					Z				3
36	Physical Education	WF	0	30					Z				0
37	Project 2 (for each specialization)	PRO2	30	30						Z			7
38	Specialization-specific course 2	/	30	30						EZ			5
39	Modeling and analysis of information systems	MAS	30	30						EZ			5
40	Foreign Language	LEK	0	60						Z			3
Elective courses													
O	Knowledge Engineering Methods **	MIW	30	30						EZ			4
O	Business Process Engineering **	IPB	30	30						EZ			4
O	Unreal Engine Programming and Advanced Techniques with C++ ***	UEC	30	30						EZ			4
O	Security Testing of IT Systems ***	TBS	30	30						EZ			4
O	Basics of Bioinformatics ***	PBIO	30	30						EZ			4
41	Project 3 (for each specialization)	PRO3	30	30							Z		9
42	Internship			160h								Z	6
43	IT Project Management	ZPR	30	30								EZ	4
44	Foreign Language	LEK	0	30								Z	3
Elective courses													
O	Introduction to Quantum Computing****	WOK	30	30								EZ	4
O	Automata and Grammars****	AUG	30	30								EZ	4
O	Machine learning operations and system architectures*****	ASI	30	30								EZ	4
O	Content Management Systems*****	CMS	30	30								EZ	4
Specialization-specific courses													
A1	Internet Technologies (specialization A)	TIN	30	30						EZ			5
B1	Advanced Computer Networks (specialization B, H)	ZSK	30	30						EZ			5
D1	Machine Learning Foundations (specialization D)	PUM	30	30						EZ			5
E1	Multimedia Projects Realization (specialization E)	RPM	30	30						EZ			5
F1	Intelligent Control Systems (specialization F)	ISS	30	30						EZ			5
J1	Participatory Game Design (specialization J)	PAPG	30	30						EZ			5
K1	Cyber Incident Analysis (specialization K)	AIC	30	30						EZ			5
A2	Database Administration (specialization A)	ABD	30	30							EZ		5
B2	Advanced Operating Systems (specialization B)	ZSO	30	30							EZ		5
D2	Machine Learning Deployment and AutoML (specialization D)	SUML	30	30							EZ		5
E2	Artificial Intelligence and Virtual Reality (specialization E)	SIWR	30	30							EZ		5
F2	Machine Vision (specialization F)	WMA	30	30							EZ		5
H2	Mobile Programming (specialization H)	PRM	30	30							EZ		5
J2	Unity - Design Patterns and Programming Practices (spec. J)	UWP	30	30							EZ		5
K2	Digital Forensics (specialization K)	KCY	30	30							EZ		5

T - course conducted remotely using teleconferencing platform

ECTS required:

The student is required to complete 6 elective courses