

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

Applicable from the academic year 2024/25

	Course Name	code	hrs.		1st YR		2nd YR		3rd YR		4th YR		ECTS score
			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								3
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	Object Oriented-Programming and Graphical User Interface	GUI	30	30		Z							4
13	Programming in C and C++	PJC	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					6
24	Fundamentals of Python Programming	PPY	30	30				Z					4
25	Physical Education	WF	0	30				Z					0
26	Information Systems Design	PRI	30	30				EZ					6
27	Legal Foundations of Business	PPB	16int	0				Z					3
28	Multimedia	MUL	30	30				Z					6
29	Foreign language	LEK	0	60				Z					3
30	Project 1 (for each specialization)	PRO1	30	30					Z				7
31	Specialization-specific course 1	/	30	30					EZ				6
32	Computer Graphics	GRK	30	30					EZ				6
33	Software Engineering	BYT	30	30					EZ				5
34	IT Project Management	ZPR	30	30					EZ				4
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			6
39	Modeling and analysis of information systems	MAS	30	30						EZ			5
40	Information Systems Security	BSI	30	15+15int						EZ			6
41	Foreign language	LEK	0	60						Z			3
42	Project 3 (for each specialization)	PRO3	30	30							Z		9
43	Internship			160h									6
44	Human-Computer Interaction	ICK	30	30							EZ		4
45	Foreign language	LEK	0	30							Z		3
<b>Elective courses (6 required)</b>													
1	Foundations of Computer Simulations	PSM	30	30					EZ				4
2	Database Applications	APBD	30	30					EZ				4
3	Distributed Programming Technologies	TPO	30	30					EZ				4
4	Knowledge Engineering Methods*	MIW	30	30						EZ			4
5	Machine Learning Foundations*	PUM	30	30						EZ			4
6	Basics of Bioinformatics**	PBIO	30	30						EZ			4
7	Business Process Engineering**	IPB	30	30						EZ			4
8	Machine learning deployment and AutoML****	SUML	30	30							EZ		4
9	Automata and Grammars***	AUG	30	30							EZ		4
10	Machine learning operations and system architectures***	ASI	30	30							EZ		4
11	Content Management Systems****	CMS	30	30							EZ		4
<b>Specialization-specific courses</b>													
1	Internet Technologies (specialization codes: A, IO, E,G)	TIN	30	30						EZ			6
2	Advanced Computer Networks (specialization codes: B, H, C)	ZSK	30	30						EZ			6
3	Intelligent Control Systems (specialization codes: D, F)	ISS	30	30						EZ			6
4	Participatory Game Design (specialization code: J)	PPG	30	30						EZ			6
5	Database Administration (specialization codes: A, IO)	ABD	30	30							EZ		6
6	Advanced Operating Systems (specialization codes: B, C)	ZSO	30	30							EZ		6
7	Machine Vision (specialization codes: D, E, F)	WMA	30	30							EZ		6
8	Unity - Design Patterns and Programming Practices (spec.: J)	UWP	30	30							EZ		6
9	Mobile Programming (specialization codes: G, H)	PRM	30	30							EZ		6

ECTS required: 222

Elective courses marked with \*, \*\*, \*\*\* and \*\*\*\* respectively characters are mutually exclusive

E - exam

Z - graded credit

T - course conducted remotely using teleconferencing platform