

STUDIA NIESTACJONARNE PIERWSZEGO STOPNIA program realizowany dla rocznika 2023/24 i kolejnych
(w zakresie poszerzenia puli przedmiotów obieralnych i specjalizacyjnych - dla rocznika 2020/21 i kolejnych)

	Course Name	code	hours		1st year		2nd year		3rd year		4th year		ECTS score
			lect.	class/lab	winter	spring	winter	spring	winter	spring	winter	spring	
1	Calculus	AM	16	16	EZ								6
2	Computer Techniques and Architecture	TAK	16	0	E								4
3	Foundations of Java Programming	PPJ	32	32	EZ								6
4	Introduction to Information Systems	WSI	16	16	EZ								5
5	Legal Foundations of Business	PPB	16int	0	Z								3
6	History and Culture of Japan	HKJ	16Int	0	Z								3
7	English	ANG1	0	16	Z								3
8	Occupational Health and Safety	BHP	4	0	Z								0
9	Linear Algebra with Geometry	ALG	16	16		EZ							5
10	Introduction to Management	WDZ	16	16	Z								3
11	Operating Systems	SOP	16	16	Z								4
12	Object-oriented Programming and GUI	GUI	32	32	Z								4
13	English	ANG2	0	16	Z								3
14	Discrete Mathematics	MAD	16	16+16int			EZ						5
15	Relational Databases	RBD	16	16			EZ						5
16	Computer Networks and Network Programming in Java	SKJ	16	16			EZ						5
17	Programming in C and C++	PJC	16	16			Z						4
18	English	ANG3	0	16			Z						3
19	Computer Graphics	GRK	16	16				EZ					6
20	Database Systems	SBD	16	16				EZ					6
21	Universal Programming Techniques	UTP	16	16				Z					4
22	Algorithms and Data Structures	ASD	16+16Int	16+16Int				EZ					5
23	Statistical Data Analysis	SAD	16	16+16int				EZ					5
24	Foreign language	LEK4	0	16				Z					3
25	Information Systems Security	BSI	16	16					EZ				6
26	Digital Systems and Foundations of Electronics	SYC	16	16					Z				4
27	Artificial Intelligence Tools	NAI	16	16Int					EZ				7
28	Information Systems Design	PRI	16	16					EZ				7
29	Multimedia	MUL	16	32					Z				7
30	Foreign language	LEK5	0	16					Z				3
31	Software Engineering	BYT	16	16						EZ			6
32	IT Project Management	ZPR	16	16						EZ			4
33	Modeling and analysis of information systems	MAS	16	16						EZ			6
34	Fundamentals of Python Programming	PPY	16	16						Z			4
35	Foreign language	LEK6	0	16						Z			3
36	Human-Computer Interaction	ICK	16	16							EZ		4
37	Project 1	PRO1	16	32							Z		10
38	Individual Work on Project	SPP1	0	70									-
39	/	/	16	32							EZ		6
40	Foreign language	LEK7	0	16							Z		3
41	/	/	16	32								EZ	6
42	Project 2	PRO2	16	32							Z		13
43	Internship			160h								Z	6
44	Individual Work on Project	SPP2	0	70									-
45	Foreign language	LEK8	0	16							Z		3
Elective courses (6 required)													
1	Foundations of Computer Simulation	PSM	16int	16								EZ	4
2	Database applications	APBD	16int	16						EZ			4
3	Distributed programming technologies	TPO	16int	16						EZ			4
4	Knowledge Engineering Methods*	MIW	16int	16							EZ		4
5	Machine learning foundations*	PUM	16int	16							EZ		4
6	Machine learning deployment and AutoML**	SUML	16int	16								EZ	4
7	Business process engineering**	IPB	16int	16								EZ	4
8	Content Management Systems	CMS	16int	16								EZ	4
9	Basics of bioinformatics	PBIO	16int	16								EZ	4
10	Machine learning operations and system architectures***	ASI	16int	16								EZ	4
11	Automata and Grammars***	AUG	16int	16								EZ	4
Specialization-specific courses													
1	Internet Technologies (specialization codes: A, IO, E, G)	TIN	16	32								EZ	6
2	Participatory Game Design (specialization code: J)	PPG	16	32								EZ	6
3	Advanced Computer Networks (specialization codes: B, H, C)	ZSK	16	32								EZ	6
4	Intelligent Control Systems (specialization codes: D, F)	ISS	16	32								EZ	6
5	Database Administration (specialization codes: A, IO)	ABD	16	32								EZ	6
6	Advanced Operating Systems (specialization codes: B, C)	ZSO	16	32								EZ	6
7	Machine Vision (specialization codes: D, E, F)	WMR	16	32								EZ	6
8	Unity - Design Patterns and Programming Practices (spec.: J)	UWP	16	32								EZ	6
9	Mobile Programming (specialization codes: G, H)	PRM	16	32								EZ	6
Total ECTS required:													232