

Academic year: **2023/2024**
 Study programme: **Computer science - Erasmus**

Block - Computer science								
Abbreviation	Name	Current	Credit	Range	End	Sem.	Prerequisites	Teacher
ÚINF/ZLI/21	Linux basics		2	2P	H	W		Sokol, Staňa
ÚINF/PRM1/15	Project management		4	2L + 1P	S	W		Pristaša, Semanišin
ÚINF/USU/19	Introduction to machine learning		5	2L + 2P	PaS	W	Basics of programming in Python, or another alternative programming language suitable for data analysis	Antoni
ÚINF/UNS1/15	Introduction to neural networks		5	2L + 2P	S	W	Basics of programming in Python, or another alternative programming language suitable for data analysis	Antoni, Horvát
ÚINF/PRO1b/15	Project II.		4	4P	H	W	advanced programming skills	Gurský
ÚINF/VYZ1/15	Computational complexity		4	2L	S	W	Basic notions from the theory of automata and formal languages. Basic skills in programming and design of algorithms (in any programming language). Basics knowledge in mathematical logic, set theory, and graph theory.	Geffert
ÚINF/KRS/15	Cryptographic systems and their applications		6	3L + 2P	PaS	W	basic number theory and algebra, basic programming	Jirásek, Krivoš-Belluš
ÚINF/MTL/22	MATLAB and neurocognition		2	2P	H	W	basic programing skills or instructor's consent	Kopčo, Lokša, Doreswamy
ÚINF/VKN1/22	Computational and cognitive neuroscience I		5	2L + 2P	S	W	Algebra, programming (Matlab).	Kopčo, Lokša, Doreswamy
ÚINF/APS1/15	Applied probability and statistics		5	2L + 2P	S	W	the basics of differential and integral calculus	Török
ÚINF/VKN2/22	Computational and cognitive neuroscience II		5	2L + 2P	S	W	basics of neurobiology, cognitive psychology, linear algebra and differential equations, programing, or instructor's consent	Kopčo, Doreswamy
ÚINF/KKV1/21	Classical and quantum computations		6	3L + 2P	S	W	Linear algebra, Group theory, Probability theory, Theory of algorithms, Introduction to quantum computers.	Semanišin, Olejár
ÚINF/KRP1/15	Cryptographic protocols	!	4	2L + 2P	PaS	W	fundamental cryptographic concepts and primitives (as taught in the course KRS/15 or in the scope of the textbook ""Understanding Cryptography"" by Christof Paar and Jan Pelzl). The course is not organized annually.	Jirásek, Krivoš-Belluš
ÚINF/AOS1/15	Administration of OS	!	2	2P	H	W	basics of Linux usage, basic knowledge of computer networks, operating systems	Sokol, Bajtoš
ÚINF/AFJ1a/15	Automata and formal languages		4	2L + 1P	S	S		Geffert, Šebej
ÚINF/SPP1b/22	Programming environments in schools II		4	2L + 2P	H	S		Šnajder
ÚINF/TYS1/15	Typographical systems		2	2P	H	S		Bednářová, Krajiči
ÚINF/PPPy/18	Advanced programming in Python		2	2P	PaS	S	Ability to implement simple programs in a selected programming language (eg Java, Pascal, C ...), basic knowledge of the principles of object-oriented programming.	Guniš
ÚINF/PSIN/15	Computer network Internet		5	3L + 1P	PaS	S	Basic programming skills	Gurský
ÚINF/ASU1/15	Algorithms and data structures		4	2L + 1P	S	S	programming skills in some programming language (Python/Java/C++/...), mathematics (computing with polynomials, logarithmic and exponential functions; computing limits of sequences, L'Hospital rule)	Krivoš-Belluš
ÚINF/PDS1/21	Parallel and distributed systems		5	2L + 2P	PaS	S	basic of concurrent programming, operating system principles	Jirásek, Krivoš-Belluš, Dvorský, Mikeš
ÚINF/UUI1/15	Artificial Intelligence and Cognitive Science		3	2L	S	S	basic programing, neurobiology, cognitive psychology, or instructor's consent	Kopčo
ÚINF/LAD1/15	Logical aspects of databases		4	2L	S	S	databases (SQL), predicate logic (a symbol, a term, a formula, an interpretation)	Krajiči
ÚINF/PMO1/15	Proces modelling		5	2L + 2P	S	S	programming, bases of software engineering and database management systems, bases of project management	Semanišin
ÚINF/ARP1/15	Computer architecture	!	4	2L + 1P	PaS	S	"fundamental concepts of computer architecture and design within the scope of a standard undergraduate course. The course is not organized annually."	Jirásek, Šebej

Other signs can occur next to the courses of the study programmes

- ! - course will not be implemented in the given academic year
- + - course will not be implemented, perhaps the next academic year
- course is implemented for the last time

Explanatory notes:

Range: L - Lecture, P - Practice
 Semester: W - Winter, S - Summer
 End: S - Examination, H - Evaluation, Z - Credit Exam, A - Passing, PaS - Continuous assessment with examination, P - Continuous assessment / Practice