Academic year: **2025/2026**
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/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. You cannot enroll in this course together with the ÚINF/UKN/24 course.	Kopčo, Lokša, Doreswamy
ÚINF/UKN/24	Introduction to cognitive and neural sciences		5	2L + 2P	S	W	Algebra, programming (Matlab). You cannot enroll in this course together with the ÚINF/MTL/22 course.	Kopčo, Lokša, Doreswamy
ÚINF/APS1/15	Applied probability and statistics		5	2L + 2P	S	W	Basics of differential and integral calculus	Török
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/AOS/25	Administration of OS	!	2	2P	H	W	Basics of Linux usage, basic knowledge of computer networks, operating systems	Sokol, Bajtoš
ÚINF/SPP1b/22	Programming environments in schools II		4	2L + 2P	H	W		Šnajder
ÚINF/TVY/15	Computability theory		4	2L + 1P	S	W	Basics of set theory and working with mappings	Antoni
ÚINF/PSDU/24	Case studies in data mining		3	2L + 2P	H	W	Introduction to programming in Python, Java or R (working with files and packages, operations with arrays, matrices) Introduction to data analysis (training and testing set, model and its evaluation)	Antoni
ÚINF/MSW/25	Modelling of software systems		4	3P	H	W	Programming, bases of software engineering and database management systems, bases of project management	Semanišin
ÚINF/TSD/19	Technologies of big data processing		2	2L	H	S	Introduction to programming in Python, Java or R (working with files and packages, operations with arrays, matrices) Introduction to data analysis (training and testing set, model and its evaluation)	Antoni, Dvorský
ÚINF/PDA/19	Data analysis project I		4	4L	H	S	Introduction to programming in Python, Java or R (working with files and packages, operations with arrays, matrices) Introduction to data analysis (training and testing set, model and its evaluation)	Antoni
ÚINF/AFJ1a/15	Automata and formal languages		4	2L + 1P	S	S		Geffert, Šebej
ÚINF/TYS1/15	Typographical systems		2	2P	H	S		Krajči
ÚINF/PJP/25	Programming language Python		4	1L + 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/LAD1/15	Logical aspects of databases		4	2L	S	S	Databases (SQL), predicate logic (a symbol, a term, a formula, an interpretation)	Krajči

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