

Academic year 2022-2023
Bachelor studies in Computer Science

Year 1 (class 2022-2025)

Semester 1

Compulsory courses

Data Structures C: 2 S: 1 L: 1 Ex: E	6 ECTS
Computer Architecture and Operating Systems C: 2 S: L: 2 Ex: E	5 ECTS
Logics for Computer Science C: 2 S: 2 L: Ex: E	6 ECTS
Mathematics - Differential and integral calculus C: 2 S: 2 L: Ex: E	5 ECTS
Introduction to Programming C: 2 S: L: 2 Ex: EVP	4 ECTS
English Language I C: S: 2 L: Ex: EVP	4 ECTS
Sports C: S: 1 L: Ex: EVP	1 ECTS

Supplementary courses

Competitive Programming C: S: 3 L: Ex: EVP	3 ECTS
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Semester 2

Compulsory courses

Object-oriented Programming C: 2 S: L: 2 Ex: E	6 ECTS
Operating Systems C: 2 S: L: 2 Ex: E	6 ECTS
Algebraic Foundations of Computer Science C: 2 S: 2 L: Ex: E	5 ECTS
Probabilities and Statistics C: 2 S: 1 L: 1 Ex: EVP	4 ECTS

Algorithms Design				5 ECTS
C: 2	S: 2	L:	Ex: E	
English Language II				4 ECTS
C:	S: 2	L:	Ex: EVP	
Sports				1 ECTS
C:	S: 1	L:	Ex: EVP	

Supplementary courses

Competitive Programming				3 ECTS
C:	S: 3	L:	Ex: EVP	
Ethics and Academic Integrity				3 ECTS
C: 1	S:	L:	Ex: EVP	

Academic year 2022-2023
Bachelor studies in Computer Science

Year 2 (class 2021-2024)

Semester 1

Compulsory courses

Computer Networks					6 ECTS
C: 2	S:	L: 2	Ex: EVP		
Databases					6 ECTS
C: 2	S:	L: 2	Ex: E		
Formal Languages, Automata and Compilers					5 ECTS
C: 2	S:	L: 2	Ex: E		
Graph Algorithms					5 ECTS
C: 2	S: 2	L:	Ex: E		
English Language III					4 ECTS
C:	S: 2	L:	Ex: EVP		
Sports					1 ECTS
C:	S: 1	L:	Ex: EVP		

Optional courses: 1 out of 4

Computability, Decidability and Complexity					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
Principles of Programming Languages					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
Genetic Algorithms					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
Quantum Computing					4 ECTS
C: 2	S:	L: 2	Ex: EVP		

Supplementary courses

Competitive Programming					3 ECTS
C:	S: 3	L:	Ex: EVP		
Rust Programming					3 ECTS
C: 1	S: 2	L:	Ex: EVP		

Semester 2

Compulsory courses

WEB Technologies				6 ECTS
C: 2	S:	L: 2	Ex: E	
Advanced Programming				5 ECTS
C: 2	S:	L: 2	Ex: E	
Software Engineering				6 ECTS
C: 2	S:	L: 2	Ex: E	
DBMS Practice				4 ECTS
C: 1	S:	L: 2	Ex: EVP	
English Language IV				4 ECTS
C:	S: 2	L:	Ex: EVP	
Sports				1 ECTS
C:	S: 1	L:	Ex: C	

Optional courses: 1 out of 4

Functional Programming				5 ECTS
C: 2	S:	L: 2	Ex: E	
Introduction to Cryptography				5 ECTS
C: 2	S:	L: 2	Ex: E	
Entrepreneurship and Innovation in IT				5 ECTS
C: 2	S:	L: 2	Ex: E	
Embedded Systems				5 ECTS
C: 2	S:	L: 2	Ex: E	

Supplementary courses

Competitive Programming				3 ECTS
C:	S: 3	L:	Ex: EVP	

Academic year 2022-2023
Bachelor studies in Computer Science

Year 3 (class 2020-2023)

Semester 1

Compulsory courses

Machine Learning					6 ECTS
C: 2	S: 2	L:	Ex: E		
Information Security					5 ECTS
C: 2	S:	L: 2	Ex: E		
Artificial Intelligence					6 ECTS
C: 2	S:	L: 2	Ex: E		
Python Programming					4 ECTS
C: 1	S:	L: 2	Ex: EVP		

Optional courses: 1 out of 4

Introduction to .NET					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
Physical Systems Development Using Microprocessors					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
Neural Networks					4 ECTS
C: 2	S:	L: 2	Ex: EVP		
3D Computer Animation: Fundamental Algorithms and Techniques					4 ECTS
C: 2	S:	L: 2	Ex: EVP		

Optional courses: 1 out of 4

Probabilistic Programming and Modeling					5 ECTS
C: 2	S:	L: 2	Ex: E		
Introduction to Mixed Reality					5 ECTS
C: 2	S:	L: 2	Ex: E		
Special Chapters in Operating Systems					5 ECTS
C: 2	S:	L: 2	Ex: E		
Multiprocessor Programming Techniques					5 ECTS
C: 2	S:	L: 2	Ex: E		

Supplementary courses

Competitive Programming	3 ECTS
C: S: 3 L: Ex: EVP	
Industry Training II	3 ECTS
C: S: L: 2 Ex: EVP	

Semester 2

Compulsory courses

Numerical Calculus	4 ECTS
C: 2 S: L: 2 Ex: EVP	
Computer Graphics and Computational Geometry	4 ECTS
C: 2 S: L: 2 Ex: EVP	
Methodology for Diploma Project Development	5 ECTS
C: S: L: 4 Ex: EVP	

Optional courses: 1 out of 4

Rule-based Programming	5 ECTS
C: 2 S: L: 2 Ex: E	
Programming Techniques on the Mobile Platforms	5 ECTS
C: 2 S: L: 2 Ex: E	
Computational Aspects on the Number Theory	5 ECTS
C: 2 S: L: 2 Ex: E	
Game Design	5 ECTS
C: 2 S: L: 2 Ex: E	

Optional courses: 1 out of 4

Psychology of the Professional Communication in IT industry	6 ECTS
C: 2 S: L: 2 Ex: E	
Cloud Computing	6 ECTS
C: 2 S: L: 2 Ex: E	
Human-Computer Interaction	6 ECTS
C: 2 S: L: 2 Ex: E	
Social Media Networks Analysis	6 ECTS
C: 2 S: L: 2 Ex: E	

Optional courses: 1 out of 4

Petri Nets and Applications	6 ECTS
C: 2 S: L: 2 Ex: E	
Smart Cards and their Applications	6 ECTS
C: 2 S: L: 2 Ex: E	

Automotive Specific Software Engineering

6 ECTS

C: 2 S: L: 2 Ex: E

Introduction to Internet of Things

6 ECTS

C: 2 S: L: 2 Ex: E

Supplementary courses

Competitive Programming

3 ECTS

C: S: 3 L: Ex: EVP