



Computer Science – second-cycle study programme, full-time studies

Department	Faculty of Informatics
Field of study	Computer Science
Level of studies	Second-cycle study programme
Profile of studies	Practical
Form of studies	Full-time studies
Duration of studies	4 semesters
Degree	Magister of Engineering
ECTS	Specialty: Computer Graphics – 126 Specialty: Computer Network Administrator / Computer Networks – 126 Specialty: Programming – 124
The total number of hours	Specialty: Computer Graphics – 1200 Specialty: Computer Network Administrator / Computer Networks – 1155 Specialty: Programming – 1125
Length of apprenticeships	3 months (12 weeks)

Specialty: Computer Graphics

No.	Course	Semester	ECTS
1	Advanced Database Technologies	1	4
2	Algebraic and Numerical Algorithms	1	5





3	Advanced Data Structures and Algorithms	1	7
4	Image Analysis and Processing	1	3
5	Methods of Artificial Intelligence	1	5
6	Computer Graphics and Human-Computer Interaction	1	6
7	Modelling and Analysis of Information Systems	2	7
8	Advanced Programming Practices	2	5
9	Digital Image Processing Methods	2	3
10	Computer Games Programming	2	5
11	Computer Vision	2	2
12	Elective Course (Cryptography/Legal Aspects of Computer Science)	2	2
13	English Classes	2	2
14	Apprenticeships	2	7
15	Scientific and Technical Calculations	3	7
16	Creating Web Applications	3	4
17	Team Project	3	4
18	Elective Course (Data Visualization/Academic Entrepreneurship)	3	3
19	Diploma Seminar	3	4
20	Diploma Workshop	3	5





21	English Classes	3	4
23	Advanced Algorithms of Computer Graphics	4	7
24	Graphical Programming and Computer Animation	4	3
25	CAD	4	4
26	Diploma Seminar	4	5
27	Diploma Workshop	4	10
28	Apprenticeships	4	3

Specialty: Computer Network Administrator / Computer Networks

No.	Course	Semester	ECTS
1	Advanced Database Technologies	1	4
2	Algebraic and Numerical Algorithms	1	5
3	Advanced Data Structures and Algorithms	1	7
4	Trends in Modern Broadband Networks	1	6
5	Information Network Technologies	1	3
6	Methods of Artificial Intelligence	1	5
7	Modelling and Analysis of Information Systems	2	7
8	Advanced Programming Practices	2	5





9	Information and Network Security	2	5
10	Design Contribution of Distributed Systems	2	5
11	Elective Course (Cryptography/Legal Aspects of Computer Science)	2	2
12	English Classes	2	2
13	Apprenticeships	2	7
14	Scientific and Technical Calculations	3	7
15	Team Project	3	4
16	Backbone Networks	3	6
17	Elective Course (Data Visualization/Academic Entrepreneurship)	3	3
18	Diploma Seminar	3	4
19	Diploma Workshop	3	5
20	English Classes	3	4
21	Telecommunication Networks and Systems	4	7
22	Designing ICT	4	5
23	Diploma Seminar	4	5
24	Diploma Workshop	4	10
25	Apprenticeships	4	3





Specialty: Programming

No.	Course	Semester	ECTS
1	Advanced Database Technologies	1	4
2	Algebraic and Numerical Algorithms	1	5
3	Advanced Data Structures and Algorithms	1	7
4	Basic Internet Technologies	1	6
5	Computer Games Programming	1	3
6	Methods of Artificial Intelligence	1	5
7	Modelling and Analysis of Informatic Systems	2	7
8	Advanced Programming Practices	2	5
9	Information and Network Security	2	5
10	Design Contribution of Distributed Systems	2	5
11	Elective Course (Cryptography/Legal Aspects of Computer Science)	2	2
12	English Classes	2	2
13	Apprenticeships	2	7
14	Scientific and Technical Calculations	3	7





15	Team Project	3	4
16	Object-oriented Programming in Java	3	6
17	Elective Course (Data Visualization/Academic Entrepreneurship)	3	3
18	Diploma Seminar	3	4
19	Diploma Workshop	3	5
20	English Classes	3	4
21	Web Applications Programming	4	7
22	Designing and Programming Business Applications	4	5
23	Diploma Seminar	4	5
24	Diploma Workshop	4	10
25	Apprenticeships	4	3

