

Course descriptions

TABLE OF CONTENTS

1. 1-AIN-245/17	3D Technologies, Robotics and Artificial Intelligence.....	4
2. 1-AIN-210/15	Algorithms and Data Structures.....	5
3. 1-AIN-955/15	Applied Informatics (state exam).....	6
4. 1-AIN-426/11	Applied Robotics Seminar.....	7
5. 1-AIN-426/11	Applied Robotics Seminar.....	9
6. 1-AIN-920/00	BSc Seminar.....	11
7. 1-AIN-991/15	BSc Thesis Defense (state exam).....	13
8. 1-AIN-407/15	Brain and Mind.....	14
9. 1-AIN-408/15	Cognitive Laboratory.....	15
10. 1-INF-283/15	Computer Networks (1).....	16
11. 2-INF-183/15	Computer Networks (2).....	18
12. 1-AIN-140/16	Computer Principles - Hardware.....	20
13. 1-AIN-180/15	Computer Principles - Operating Systems.....	21
14. 1-AIN-186/16	Computer Principles - System Programming.....	22
15. 1-AIN-611/00	Creative Writing.....	23
16. 1-AIN-221/15	Databases (1).....	25
17. 1-AIN-222/15	Databases (2).....	26
18. 1-AIN-305/15	Deductive Databases.....	27
19. 1-AIN-131/10	Development of Information Systems.....	28
20. 1-AIN-105/15	Efficient Algorithms and Complexity.....	30
21. 1-AIN-311/15	Embedded Linux.....	31
22. 1-MXX-233/13	English Conversation Course (1).....	32
23. 1-MXX-234/13	English Conversation Course (2).....	33
24. 1-MXX-131/00	English Language (1).....	34
25. 1-MXX-132/00	English Language (2).....	36
26. 1-MXX-231/00	English Language (3).....	37
27. 1-MXX-232/10	English Language (4).....	38
28. 1-AIN-670/00	Expert Systems.....	39
29. 2-AIN-133/15	Extreme Programming.....	40
30. 1-INF-215/14	Formal Languages and Automata (1).....	42
31. 1-MXX-141/00	French Language (1).....	44
32. 1-MXX-142/00	French Language (2).....	45
33. 1-MXX-241/00	French Language (3).....	46
34. 1-MXX-242/00	French Language (4).....	47
35. 1-AIN-301/15	Fundamentals of Computer Graphics and Image Processing.....	48
36. 1-AIN-251/11	Fundamentals of Enterprise and Management.....	49
37. 1-AIN-303/15	Game Engines.....	50
38. 1-AIN-545/00	Geometric Objects Representation.....	51
39. 1-MAT-551/10	Geometry for Graphics (1).....	53
40. 1-MAT-552/10	Geometry for Graphics (2).....	54
41. 1-MXX-151/00	German Language (1).....	55
42. 1-MXX-152/00	German Language (2).....	56
43. 1-MXX-251/00	German Language (3).....	57
44. 1-MXX-252/00	German Language (4).....	58
45. 2-INF-174/15	Graph Theory.....	59
46. 1-AIN-413/18	Graphs, Graphic Algorithms and Optimization.....	61
47. 1-MXX-491/15	Integrated Education of People with Disabilities.....	62

48. 1-AIN-304/15	Introduction to Artificial Intelligence.....	63
49. 1-AIN-132/12	Introduction to BSc Project.....	65
50. 1-INF-230/00	Introduction to Database Systems.....	66
51. 1-INF-520/00	Introduction to Information Security.....	68
52. 1-AIN-211/10	Introduction to Theoretical Informatics.....	70
53. 1-INF-415/00	Introduction to Theory of Programming.....	71
54. 1-AIN-112/15	Introduction to Web Technologies.....	73
55. 1-AIN-406/15	Language and Cognition.....	74
56. 1-AIN-152/15	Linear Algebra.....	75
57. 1-AIN-510/15	Linux - Principles and Means.....	76
58. 1-AIN-500/00	Linux for Users.....	77
59. 1-AIN-121/15	Mathematics (1) - Introduction to Mathematical Reasoning.....	78
60. 1-AIN-188/17	Mathematics (2) - Mathematical Analysis.....	79
61. 1-AIN-160/15	Mathematics (3) - Discrete Mathematics.....	80
62. 1-AIN-412/15	Mathematics (4) - Logic for Computer Science.....	81
63. 1-AIN-472/15	Mobile Application Developement.....	82
64. 1-MAT-570/15	Modelling and Rendering Techniques.....	83
65. 1-AIN-530/00	Multimedia.....	84
66. 1-AIN-675/00	Philophy of Internet.....	85
67. 1-MXX-110/00	Physical Education and Sport (1).....	87
68. 1-MXX-120/00	Physical Education and Sport (2).....	88
69. 1-MXX-210/00	Physical Education and Sport (3).....	89
70. 1-MXX-220/00	Physical Education and Sport (4).....	90
71. 1-MXX-310/00	Physical Education and Sport (5).....	91
72. 1-MXX-320/00	Physical Education and Sport (6).....	92
73. 1-AIN-167/15	Practical Classes in Robotics.....	93
74. 2-INF-175/18	Probability and Statistics.....	94
75. 1-AIN-130/16	Programming (1).....	96
76. 1-AIN-170/13	Programming (2).....	97
77. 1-AIN-171/10	Programming (3).....	98
78. 1-AIN-172/00	Programming (4).....	100
79. 1-AIN-302/17	Programming (5).....	101
80. 1-AIN-430/15	Programming Paradigms.....	102
81. 1-AIN-232/17	Project (1).....	103
82. 1-AIN-262/17	Project (2).....	104
83. 1-UXX-340/00	Recreation Sports in Dially Routine of Pupils and Students.....	105
84. 1-MXX-161/00	Russian Language (1).....	106
85. 1-MXX-162/00	Russian Language (2).....	107
86. 1-MXX-261/00	Russian Language (3).....	108
87. 1-MXX-262/00	Russian Language (4).....	109
88. 2-IKVa-192/19	Science, Technology and Humanity: Opportunities and Risks.....	110
89. 1-AIN-315/15	Semistructured Data (XML, JSON and NoSQL).....	112
90. 1-INF-175/00	Social Aspects of Informatics.....	113
91. 1-AIN-470/15	Specification and Verification of Programs.....	114
92. 1-MXX-115/15	Sports in Nature (1).....	116
93. 1-MXX-215/15	Sports in Nature (2).....	117
94. 1-MXX-216/18	Sports in Nature (3).....	118
95. 1-MXX-217/18	Sports in Nature (4).....	119
96. 1-MXX-501/15	Statistics for Non-statisticians.....	120

97. 1-MXX-133/18	Supplementary English Course (1).....	121
98. 1-MXX-134/18	Supplementary English Course (2).....	122
99. 1-AIN-316/16	Technologies of Digital Fabrication.....	123
100. 1-INF-810/15	Time-Restricted Programming (1).....	124
101. 1-INF-815/15	Time-Restricted Programming (2).....	125
102. 2-INF-176/15	Unix for System Administrators.....	126
103. 1-AIN-189/15	Web Applications (1).....	128
104. 1-AIN-244/15	Web Applications (2).....	129
105. 1-AIN-168/15	Web Applications in Praxis.....	130
106. 1-MAT-560/00	Web Graphics.....	131

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-245/17		Course title: 3D Technologies, Robotics and Artificial Intelligence			
Educational activities: Type of activities: course Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 12					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: RNDr. Michal Malý, PhD., Mgr. Ján Žižka, PhD., Mgr. Tomáš Kovačovský					
Last change: 06.10.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI+KAI/1-AIN-210/15		Course title: Algorithms and Data Structures			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 3.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-170/13 - Programming (2)					
Antirequisites: FMFI.KZVI/1-AIN-210/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1165					
A	B	C	D	E	FX
17,85	8,93	13,65	13,99	25,92	19,66
Lecturers: RNDr. Andrej Blaho, PhD., PaedDr. Daniela Bezáková, PhD.					
Last change: 22.09.2017					
Approved by:					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-955/15	Course title: Applied Informatics
Number of credits: 4	
Educational level: I.	
State exam syllabus:	
Last change: 04.06.2018	
Approved by:	

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-426/11	Course title: Applied Robotics Seminar
Educational activities: Type of activities: course Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning	
Number of credits: 1	
Recommended semester: 3.	
Educational level: I.	
Prerequisites:	
Course requirements: During semester: participate at seminars and/or events Grading: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 100/0	
Learning outcomes: The student will gain experiences with theoretical and practical aspects of robotic contests, he or she will learn about algorithms, programming and building robots and methods for robot performance evaluation. This knowledge will be tested on particular situations.	
Class syllabus: - applications of mobile robotics - history of mobile robotics - sensors and actuators - navigation, simulation, and learning - analysis of robot behavior - building and programming a real model - robotic contests – FLL - robotic contests – rozličné kategórie RoboCup - robotic contests – Istrobot, Robot Challenge - robotic contests – RoboTour, Eurobot, Sailing Robots Championship	
Recommended literature: Ulrich Nehmzow: Mobile Robotics: A Practical Introduction. Emília Kratochvílová (2010) Pedagogika voľného času, TYPI UNIVERSITAS TRNAVIENSIS. Petrovic P., Balogh R., Pekarova J. (2009) Robotické vzdelavacie iniciatívy, Informatika v škole a v praxi, Ruzomberok: Pedagogická fakulta Katolíckej univerzity, 2008. ISBN 978-80-8084-362-5. p. 239-248	
Languages necessary to complete the course: Slovak or English	
Notes:	

This course can be taken in either of the two semesters, but counts only one time. We welcome students of all study years from the whole university.

Past grade distribution

Total number of evaluated students: 193

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Pavel Petrovič, PhD.

Last change: 24.10.2016

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-426/11	Course title: Applied Robotics Seminar
Educational activities: Type of activities: course Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning	
Number of credits: 1	
Recommended semester: 4.	
Educational level: I.	
Prerequisites:	
Course requirements: During semester: participate at seminars and/or events Grading: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 100/0	
Learning outcomes: The student will gain experiences with theoretical and practical aspects of robotic contests, he or she will learn about algorithms, programming and building robots and methods for robot performance evaluation. This knowledge will be tested on particular situations.	
Class syllabus: - applications of mobile robotics - history of mobile robotics - sensors and actuators - navigation, simulation, and learning - analysis of robot behavior - building and programming a real model - robotic contests – FLL - robotic contests – rozličné kategórie RoboCup - robotic contests – Istrobot, Robot Challenge - robotic contests – RoboTour, Eurobot, Sailing Robots Championship	
Recommended literature: Ulrich Nehmzow: Mobile Robotics: A Practical Introduction. Emília Kratochvílová (2010) Pedagogika voľného času, TYPI UNIVERSITAS TRNAVIENSIS. Petrovic P., Balogh R., Pekarova J. (2009) Robotické vzdelavacie iniciatívy, Informatika v škole a v praxi, Ruzomberok: Pedagogická fakulta Katolíckej univerzity, 2008. ISBN 978-80-8084-362-5. p. 239-248	
Languages necessary to complete the course: Slovak or English	
Notes:	

This course can be taken in either of the two semesters, but counts only one time. We welcome students of all study years from the whole university.

Past grade distribution

Total number of evaluated students: 193

A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Pavel Petrovič, PhD.

Last change: 24.10.2016

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-920/00		Course title: BSc Seminar			
Educational activities: Type of activities: seminar Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements: During semester: priebežné referáty Final grade depends on presentation of the final thesis results Evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 100/0					
Learning outcomes: Students will get acquainted with research work and with writing scientific publications. They will discuss about project approach to problem solving, and they will be introduced to the basics of acquiring and presenting research results.					
Class syllabus: - student in cooperation with the advisor of bachelor thesis and with the teacher of the seminar formulates goals and stages of his or her work, - principles of research and scientific work, evaluation and presentation, - principles of producing scientific publications, - regular presentation of interim results of the bachelor thesis in a seminar study group					
Recommended literature: depending on the topic of the bachelor thesis, and recommendation of the thesis advisor information sources on the Internet					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 826					
A	B	C	D	E	FX
66,34	14,53	8,6	2,42	2,66	5,45
Lecturers: Mgr. Pavel Petrovič, PhD., RNDr. Andrej Blaho, PhD., RNDr. Zuzana Černeková, PhD., doc. RNDr. Milan Ftáčnik, CSc.					
Last change: 24.10.2016					

Approved by:

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-991/15	Course title: BSc Thesis Defense
Number of credits: 8	
Educational level: I.	
State exam syllabus:	
Last change: 22.09.2017	
Approved by:	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-407/15		Course title: Brain and Mind			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 1., 3., 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 133					
A	B	C	D	E	FX
48,87	19,55	13,53	9,77	1,5	6,77
Lecturers: RNDr. Barbora Cimrová, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-408/15		Course title: Cognitive Laboratory			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1., 3., 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 38					
A	B	C	D	E	FX
71,05	15,79	5,26	2,63	0,0	5,26
Lecturers: doc. PhDr. Ján Rybár, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KI/1-INF-283/15	Course title: Computer Networks (1)
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning	
Number of credits: 4	
Recommended semester: 2.	
Educational level: I.	
Prerequisites:	
Antirequisites: FMFI.KI/1-INF-260/00	
Course requirements: Exercises, tests, written and oral final exam Scale of assessment (preliminary/final): 40/60	
Learning outcomes: Students will be familiar with basic terminology of computer networks and principles of their operation. They will have practical experience with usage and configuration of technologies commonly used on local networks and on the internet.	
Class syllabus: Basic network terminology, layer models, OSI, TCP/IP Physical layer - cables, wireless transmission Data link layer - Ethernet, WiFi, PPP, Bluetooth. Network layer – IP, routing, ICMP, ARP. Transport layer – UDP, TCP, NAT. Application layer – DNS, DHCP, Web, Mail, FTP, ... IPv6 Security – firewall, VPN, SSL/TLS, security at the application layer (Web, Mail).	
Recommended literature: Computer Networks / Andrew S. Tanenbaum, David J. Wetherall. Boston : Pearson education, 2011 Computer Networks / Andrew S. Tanenbaum. Upper Saddle River : Prentice-Hall, 2003 Data and computer communications / William Stallings. Upper Saddle River : Prentice-Hall, 2004	
Languages necessary to complete the course: Slovak, English	
Notes:	

Past grade distribution					
Total number of evaluated students: 1638					
A	B	C	D	E	FX
14,96	14,71	18,07	24,05	19,41	8,79
Lecturers: RNDr. Jaroslav Janáček, PhD.					
Last change: 08.02.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KI/2-INF-183/15	Course title: Computer Networks (2)
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning	
Number of credits: 4	
Recommended semester: 5.	
Educational level: I., II.	
Prerequisites:	
Recommended prerequisites: 1-INF-283	
Course requirements: assignments, written tests, written and oral final exam Scale of assessment (preliminary/final): 40/60	
Learning outcomes: Students will be familiar with principles and practical application of advanced technologies in computer networks and data communication.	
Class syllabus: 802.1q, STP, DOCSIS , ATM, IP routing protocols (BGP, OSPF, RIP, ...), advanced topics in TCP (syn-cookies, ECN, ...), advanced topics in WiFi, tunneling. Theoretical principles of data transmission, maximal bandwidth, CRC, ..., modulation techniques, data transmission - UART, USRT, synchronization Long-distance lines and multiplexing - optical networks - FDMA/TDMA/CDMA, synchronous optical networks (SDH, SONET).	
Recommended literature: Computer Networks / Andrew S. Tanenbaum, David J. Wetherall. Boston : Pearson education, 2011 Computer Networks / Andrew S. Tanenbaum. Upper Saddle River : Prentice-Hall, 2003 Data and computer communications / William Stallings. Upper Saddle River : Prentice-Hall, 2004	
Languages necessary to complete the course: Slovak, English	
Notes:	

Past grade distribution					
Total number of evaluated students: 75					
A	B	C	D	E	FX
24,0	41,33	21,33	8,0	4,0	1,33
Lecturers: RNDr. Jaroslav Janáček, PhD.					
Last change: 10.05.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/1-AIN-140/16		Course title: Computer Principles - Hardware			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KEF/1-AIN-140/15					
Course requirements: Scale of assessment (preliminary/final): 50/50					
Learning outcomes:					
Class syllabus: Principles of DDL, DTL a TTL circuits. Combinational and sequential schemes, their optimalization and practical applications (RS- and D- type flip-flops, counter and shift register). Multiplexer and demultiplexer, paralel-serial code converter, RS232 interface, statical RAM memory, delta modulation and simple digital sound recording.					
Recommended literature: faculty guidance documents					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 472					
A	B	C	D	E	FX
22,46	30,51	18,43	8,9	9,75	9,96
Lecturers: RNDr. Ján Greguš, PhD., doc. RNDr. František Kundracik, CSc.					
Last change: 21.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/1-AIN-180/15		Course title: Computer Principles - Operating Systems			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 3.					
Educational level: I.					
Prerequisites: (FMFI.KAI/1-AIN-170/13 - Programming (2) and leboFMFI.KI/1-INF-127/15 - Programming (1) in C/C++),(FMFI.KEF/1-AIN-140/16 - Computer Principles - Hardware and leboFMFI.KI/1-INF-130/00 - Computer Architecture),(FMFI.KDMFI/1-AIN-186/16 - Computer Principles - System Programming and leboFMFI.KI/1-INF-526/15 - System Programming)					
Antirequisites: FMFI.KZVI/1-AIN-180/00 and FMFI.KI/1-INF-171/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1087					
A	B	C	D	E	FX
4,32	8,65	19,14	29,07	34,04	4,78
Lecturers: RNDr. Peter Tomcsányi, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/1-AIN-186/16		Course title: Computer Principles - System Programming			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 3 per level/semester: 28 / 42 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: I.					
Prerequisites: (FMFI.KEF/1-AIN-140/16 - Computer Principles - Hardware and leboFMFI.KI/1-INF-130/00 - Computer Architecture),(FMFI.KAI/1-AIN-130/16 - Programming (1) and leboFMFI.KI/1-INF-127/15 - Programming (1) in C/C++)					
Antirequisites: FMFI.KZVI/1-AIN-186/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 261					
A	B	C	D	E	FX
8,81	11,11	19,16	22,61	34,1	4,21
Lecturers: RNDr. Peter Tomcsányi, PhD., Mgr. Pavel Petrovič, PhD., RNDr. Andrej Blaho, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-611/00		Course title: Creative Writing			
Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Principles of creative writing Techniques of writing Writing Research Papers Journalistic genres Specifics of internet writing Art of editing Creativity, originality and rules					
Recommended literature: Lester, James D., Lester, James D. Jr., Principles of Writing Research Papers, Penguin Academics, 2003 Dočekalová, Markéta, Creative writing for all (in czech), Grada Publishing, 2006 Seley, Hans, Secrets fo science (in czech), Orbis Praha, 1964 King, Stephen, About writing, Memoirs about writing (in czech), BETA- Dobrovský, Praha, 2002 Bradbury, Ray, ZEN and Art of Writing, Essays about creativity (in czech), PRAGMA, Praha, 1998					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 136					
A	B	C	D	E	FX
92,65	2,21	0,74	0,74	0,74	2,94
Lecturers: Ing. František Gyarfaš, CSc.					
Last change: 22.09.2017					

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-221/15		Course title: Databases (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 433					
A	B	C	D	E	FX
3,93	8,55	13,63	22,86	24,71	26,33
Lecturers: Ing. Alexander Šimko, PhD.					
Last change: 06.10.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-222/15		Course title: Databases (2)			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 4.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-221/15 - Databases (1)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 319					
A	B	C	D	E	FX
10,34	8,78	15,05	15,99	22,57	27,27
Lecturers: Ing. Alexander Šimko, PhD.					
Last change: 06.10.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-305/15		Course title: Deductive Databases			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-412/15 - Mathematics (4) - Logic for Computer Science,FMFI.KAI/1-AIN-222/15 - Databases (2)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 40					
A	B	C	D	E	FX
50,0	30,0	15,0	2,5	0,0	2,5
Lecturers: doc. RNDr. Martin Homola, PhD., Ing. Alexander Šimko, PhD., RNDr. Jozef Šiška, PhD., Mgr. Ján Kľuka, PhD.					
Last change: 06.10.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAI/1-AIN-131/10	Course title: Development of Information Systems
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 5.	
Educational level: I.	
Prerequisites:	
Antirequisites: FMFI.KI/1-INF-516/10	
Course requirements: Evaluation during semester - tests Exam, Project Evaluation based on total points earned: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 50/50	
Learning outcomes: Students will learn about the stages in the software design process, models of development including agile, fundamentals of clean code, read and write basic UML diagrams, use design patterns, understand and get practice in using revision control systems for source code repositories , and try a full process of software design on a realistic project from specification till deployment to use in a combined development model.	
Class syllabus: - Stages in development of information system - Traditional development models - Agile methods of IS development - Specification of requirements of IS - UML - Design of IS - Design patterns - Integration of applications - Source code repositories - Clean code - Soft skills	
Recommended literature: Design patterns : Elements of reusable object-oriented software / Erich Gamma ... [et al.]. Boston : Addison-Wesley, 1995	

Architektúra softvérových systémov : Architektúra internetových systémov a architektúra orientovaná na služby / Ľubor Šešera, Peter Grec, Pavol Návrat. Bratislava : Slovenská technická univerzita, 2011

Aplikačné architektúry softvérových systémov / Ľubor Šešera. Bratislava : Slovenská technická univerzita, 2012

Čistý kód / Robert C. Martin ; překlad Jiří Berka. Brno : Computer Press, 2009

Software engineering : Modern approaches / Eric J. Braude, Michael E. Bernstein. Hoboken : Wiley, 2011

Sun Certified Enterprise Architect for Java EE study guide / Mark Cade, Humphrey Sheil. Upper Saddle River : Prentice Hall, 2010

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 740

A	B	C	D	E	FX
23,38	36,89	23,65	10,27	3,78	2,03

Lecturers: Mgr. Pavel Petrovič, PhD., doc. PhDr. Ján Šefránek, CSc.

Last change: 03.10.2016

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-105/15		Course title: Efficient Algorithms and Complexity			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites: FMFI.KDMFI+KAI/1-AIN-210/15 - Algorithms and Data Structures and leboFMFI.KI/1-INF-220/00 - Algorithms and Data Structures					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 83					
A	B	C	D	E	FX
9,64	15,66	20,48	22,89	24,1	7,23
Lecturers: doc. Mgr. Tomáš Vinař, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-311/15		Course title: Embedded Linux			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 22					
A	B	C	D	E	FX
45,45	50,0	4,55	0,0	0,0	0,0
Lecturers: RNDr. Jozef Šiška, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-233/13		Course title: English Conversation Course (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3., 5.					
Educational level: I., II.					
Prerequisites:					
Course requirements: Scale of assessment (preliminary/final): 100/0					
Learning outcomes:					
Class syllabus: The content of the course is general English. The language level is B2/C1 (Upper-Intermediate/Lower Advanced).					
Recommended literature: Selection of materials from Inside Out Upper-Intermediate, Cutting Edge Upper-Intermediate, New English File Upper-Intermediate, British and American newspapers and journals Recordings: authentic and semi-authentic (source: BBC, CNN, coursebook recordings)					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 193					
A	B	C	D	E	FX
65,28	13,99	7,25	2,07	1,55	9,84
Lecturers: PhDr. Elena Klátiková, Mgr. Aneta Barnes					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-234/13		Course title: English Conversation Course (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4., 6.					
Educational level: I., II.					
Prerequisites:					
Course requirements: Scale of assessment (preliminary/final): 100/0					
Learning outcomes:					
Class syllabus: The course is a follow-up to the Conversation Course in English (1). The content of the course is general English. The language level is B2/C1 (Upper-Intermediate/Lower Advanced).					
Recommended literature: Selection of materials from Inside Out Upper-Intermediate, Cutting Edge Upper-Intermediate, New English File Upper-Intermediate, British and American newspapers and journals Recordings: authentic and semi-authentic (source: BBC, CNN, coursebook recordings)					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 118					
A	B	C	D	E	FX
73,73	15,25	4,24	0,85	0,0	5,93
Lecturers: PhDr. Elena Klátiková, Mgr. Aneta Barnes					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-131/00		Course title: English Language (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: On entering the first semester, students’ knowledge of English is tested and they are divided into groups according to the results of the placement test. In the groups of pre-intermediate and intermediate students, fundamentals of technical English are taught. Advanced students take classes of technical English for their field of study: English for mathematics, for physics, for computer science, English for management and economic and financial mathematics.					
Recommended literature: Zemanová, A.: Anglický jazyk pre študentov FMFI UK. Kurz pre mierne pokročilých. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-2829-6 Erdélyi L., Gombárik P.: Anglický jazyk pre študentov FMFI UK. Aplikovaná matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3216-3 Gombárik P.: Anglický jazyk pre študentov FMFI UK. Matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3207-1 Klátiková E.: Anglický jazyk pre študentov FMFI UK. Informatika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3196-8 Alena Zemanová: Anglický jazyk pre študentov FMFI UK. Fyzika. Univerzita Komenského v Bratislave, Bratislava 2014, 92 strán, ISBN: 978-80-223-3477-8.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 5497					
A	B	C	D	E	FX
30,25	23,85	18,66	12,68	7,57	6,99
Lecturers: PhDr. Elena Klátiková, PhDr. Alena Zemanová, Mgr. Ing. Jana Kočvarová, Mgr. Alexandra Maďarová, Mgr. Ľubomíra Kožehubová, Mgr. Eva Foltánová, Mgr. Aneta Barnes					

Last change: 22.02.2019
Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-132/00		Course title: English Language (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: This is a continuation of the course English (1) designed for pre-intermediate students. Fundamental vocabulary is presented through selected topics in mathematics, physics and informatics. The lessons also contain revision of elementary grammar. Generally, it is a necessary preliminary to advanced programs.					
Recommended literature: Zemanová, A.: Anglický jazyk pre študentov FMFI UK. Kurz pre mierne pokročilých. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-2829-6					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1550					
A	B	C	D	E	FX
22,26	20,52	24,45	15,68	10,65	6,45
Lecturers: PhDr. Elena Klátiková, PhDr. Alena Zemanová, Mgr. Ing. Jana Kočvarová, Mgr. Alexandra Maďarová, Mgr. Ľubomíra Kožehubová, Mgr. Eva Foltánová, Mgr. Aneta Barnes					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-231/00		Course title: English Language (3)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject continues the program of English (2). Students take classes of special English for their field of study: English for mathematics, English for physics, English for computer science, English for management and economic and financial mathematics. The subject requires advanced knowledge of general English.					
Recommended literature: Erdélyi L., Gombárik P.: Anglický jazyk pre študentov FMFI UK. Aplikovaná matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3216-3 Gombárik P.: Anglický jazyk pre študentov FMFI UK. Matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3207-1 Klátiková E.: Anglický jazyk pre študentov FMFI UK. Informatika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3196-8 Alena Zemanová: Anglický jazyk pre študentov FMFI UK. Fyzika. Univerzita Komenského v Bratislave, Bratislava 2014, 92 strán, ISBN: 978-80-223-3477-8.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1283					
A	B	C	D	E	FX
16,29	19,33	22,92	18,08	17,69	5,69
Lecturers: PhDr. Elena Klátiková, PhDr. Alena Zemanová, Mgr. Ing. Jana Kočvarová, Mgr. Alexandra Maďarová, Mgr. Ľubomíra Kožehubová, Mgr. Marián Mancovič, Mgr. Eva Foltánová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-232/10		Course title: English Language (4)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Students take classes of special English for their field of study: English for mathematics, English for physics, English for computer science, English for management and economic and financial mathematics.					
Recommended literature: Erdélyi L., Gombárik P.: Anglický jazyk pre študentov FMFI UK. Aplikovaná matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3216-3 Gombárik P.: Anglický jazyk pre študentov FMFI UK. Matematika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3207-1 Klátiková E.: Anglický jazyk pre študentov FMFI UK. Informatika. Univerzita Komenského v Bratislave, Bratislava 2012, ISBN 978-80-223-3196-8 Alena Zemanová: Anglický jazyk pre študentov FMFI UK. Fyzika. Univerzita Komenského v Bratislave, Bratislava 2014, 92 strán, ISBN: 978-80-223-3477-8.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2833					
A	B	C	D	E	FX
28,45	28,49	21,07	10,87	5,65	5,47
Lecturers: Mgr. Ing. Jana Kočvarová, Mgr. Alexandra Maďarová, PhDr. Alena Zemanová, PhDr. Elena Klátiková, Mgr. Ľubomíra Kožehubová, Mgr. Marián Mancovič, Mgr. Eva Foltánová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-670/00		Course title: Expert Systems			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 284					
A	B	C	D	E	FX
20,07	13,03	36,27	14,79	11,97	3,87
Lecturers: doc. RNDr. Dušan Guller, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAI/2-AIN-133/15	Course title: Extreme Programming
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 6.	
Educational level: I., II.	
Prerequisites:	
Recommended prerequisites: 1-AIN-171 Programmiong (3)	
Antirequisites: FMFI.KAI/1-AIN-680/00	
Course requirements: Continuous assessment: work in exercises, ongoing transmission and delivery of assigned tasks Test: test at the computer, an interview, project development Approximate evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 50/50	
Learning outcomes: After completing the course, students will be able to use the methods and techniques Agile Extreme Programming methodology. It will be the pair programming, different techniques of use and test, test driven programming, refactoring, techniques of working with legacy code. They will be able to organize work on a collective project by project management methodology in the form of extreme programming.	
Class syllabus: A brief history of software engineering life cycle of software systems, the traditional methodology and agile methodologies, the main pillars of extreme programming, pair programming, test of controlled programming, typology of different kinds of tests and their use, refactoring and its methodology and techniques, working with legacy code, four variables project management, strategy solutions - planning, development, design, testing, design and creation of custom group project.	
Recommended literature: Čistý kód / Robert C. Martin ; překlad Jiří Berka. Brno : Computer Press, 2009 Refactoring : Improving the design of existing code / Martin Fowler. Boston : Addison-Wesley, 1999 Agilní programování : Metodiky efektivního vývoje softwaru / Václav Kadlec. Brno : Computer Press, 2004 electronic documents	

Languages necessary to complete the course: slovak, english					
Notes:					
Past grade distribution Total number of evaluated students: 161					
A	B	C	D	E	FX
67,7	10,56	8,7	3,73	7,45	1,86
Lecturers: Ing. František Gyarfaš, CSc.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KI/1-INF-215/14		Course title: Formal Languages and Automata (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 3 / 2 per level/semester: 42 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements: homework, test, written and oral final exam Scale of assessment (preliminary/final): 30/70					
Learning outcomes: Students will be familiar with basic models of automata and grammars, and they will be able to compare their computational power. They will understand algorithmic problem (un)decidability and a formal definition of computational complexity of a problem.					
Class syllabus: Chomsky hierarchy of formal grammars. Finite state automata and pushdown automata. Basic properties of regular and context-free languages, regular expressions. Turing machines. Undecidable problems. Introduction to computational complexity theory.					
Recommended literature: The Mathematical theory of context free languages / Seymour Ginsburg. New York : McGraw Hill, 1966 Formálne jazyky a automaty / John E. Hopcroft, Jeffrey D. Ullmanm ; preložili Branislav Rován, Peter Mikulecký. Bratislava : Alfa, 1978 Introduction to Automata Theory, Languages, and Computation / John E. Hopcroft, Rajeev Motwani, Jeffrey D. Ullman. Boston : Pearson/Addison-Wesley, 2007					
Languages necessary to complete the course: Slovak, English					
Notes:					
Past grade distribution Total number of evaluated students: 539					
A	B	C	D	E	FX
21,15	4,82	3,71	21,15	34,69	14,47
Lecturers: prof. RNDr. Branislav Rován, PhD., RNDr. Šimon Sádovský					
Last change: 08.02.2018					

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-141/00		Course title: French Language (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: French language is taught at two levels: beginner and intermediate. Students opt for one of them depending on whether they wish to obtain the fundamentals of the language or wish to maintain and/or improve previous knowledge of French.					
Recommended literature: Pravda, Pravdová: Učebnica francúzštiny pre samoukov a kurzy, SPN Bratislava 1999, ISBN 80-08-00431-2					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 421					
A	B	C	D	E	FX
45,13	20,43	19,48	9,03	1,9	4,04
Lecturers: Mgr. Ľubomíra Kožehubová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-142/00		Course title: French Language (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject continues the program of French language (1) and provides courses of essential and intermediate French language.					
Recommended literature: Pravda, Pravdová: Učebnica francúzštiny pre samoukov a kurzy, SPN Bratislava 1999, ISBN 80-08-00431-2 Blažena Srncová: Učebnica francúzštiny pre študentov Matematicko-fyzikálnej fakulty , UK 1983 Kolektív Lingea, s.r.o.: Slovensko-francúzsky hovorník, Bratislava 2008					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 259					
A	B	C	D	E	FX
38,22	25,87	20,08	10,42	2,7	2,7
Lecturers: Mgr. Ľubomíra Kožehubová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-241/00		Course title: French Language (3)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject provides a course of intermediate French language, covering not only general, but also technical language.					
Recommended literature: Pravda, Pravdová: Učebnica francúzštiny pre samoukov a kurzy, SPN Bratislava 1999, ISBN 80-08-00431-2 Blažena Srncová: Učebnica francúzštiny pre študentov Matematicko-fyzikálnej fakulty , UK 1983 Kolektív Lingea, s.r.o.: Slovensko-francúzsky hovorník, Bratislava 2008					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 101					
A	B	C	D	E	FX
37,62	28,71	21,78	6,93	0,99	3,96
Lecturers: Mgr. Ľubomíra Kožehubová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-242/00		Course title: French Language (4)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject provides a course of intermediate French covering not only general, but also technical French language.					
Recommended literature: Pravda, Pravdová: Učebnica francúzštiny pre samoukov a kurzy, SPN Bratislava 1999, ISBN 80-08-00431-2 Blažena Srncová: Učebnica francúzštiny pre študentov Matematicko-fyzikálnej fakulty , UK 1983 Kolektív Lingea, s.r.o.: Slovensko-francúzsky hovorník, Bratislava 2008 Zarha Lahmidi: Sciences-techniques.com, ISBN 209-0331186-0, CLE international, 2005					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 71					
A	B	C	D	E	FX
39,44	33,8	18,31	2,82	1,41	4,23
Lecturers: Mgr. Ľubomíra Kožehubová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-301/15		Course title: Fundamentals of Computer Graphics and Image Processing			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI+KAGDM/1-AIN-240/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1139					
A	B	C	D	E	FX
23,27	26,43	22,3	12,12	8,17	7,73
Lecturers: doc. RNDr. Milan Ftáčnik, CSc.					
Last change: 21.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-251/11		Course title: Fundamentals of Enterprise and Management			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 6.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-131/10 - Development of Information Systems and leboFMFI.KI/1-INF-516/15 - Principles of Software Design					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1011					
A	B	C	D	E	FX
29,77	27,7	19,49	11,67	8,61	2,77
Lecturers: Ing. Peter Filo, PhD.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-303/15		Course title: Game Engines			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 123					
A	B	C	D	E	FX
19,51	25,2	13,82	8,13	2,44	30,89
Lecturers: RNDr. Andrej Lúčny, PhD.					
Last change: 21.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAG/1-AIN-545/00	Course title: Geometric Objects Representation
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 6.	
Educational level: I.	
Prerequisites:	
Course requirements: Preliminary assessment: tests, projects Final assessment: Exam in written and oral form Final assessment examination 70% (A 90%; B 80%; C 70%; D 60%; E 50%)	
Learning outcomes: The graduate gains basic knowledge of the cubic curve segments, spline curves, patches and spline surfaces. Spline curves and surfaces are studied with parametric or geometric continuities, the shape parameters are applied for modeling. The computational algorithms of the curve segments are presented.	
Class syllabus: 1. Representation of cubic segments in Hermite and Bernstein basis, computational algorithms. 2. Geometric and parametric continuities for curve segments and creating: a) interpolating splines (Hermite spline, cardinal spline, Catmull-Rom spline) b) approximating splines (Bézier spline, Beta spline, B-spline). Rational curves (Bézier, NURBS) and the weights as shape parameters. 3. Representation of surfaces defined by a) geometric transformation (surfaces of revolution) b) boundary curves (ruled surfaces, Coons surfaces) c) control nets (tensor-product surfaces, Bézier, B-spline, NURBS).	
Recommended literature: Geometric Modeling with Splines / R. F. Riesenfeld, E. Cohen, G. Elber: A K Peters/CRC Press; 1 ed. 2001 Fundamentals of CAGD / J. Hoschek, D. Lasser: A K Peters/CRC Press; 1 ed., 1996 Geometric Concepts for Geometric Design / W. Boehm, H. Prautzsch. Publ. by A K PETERS, 1993 Bézier and B-Spline Techniques / H. Prautzsch, W. Boehm, M. Paluszny. Springer-Verlag Berlin Heidelberg, 2002 Curves and Surfaces for CAGD, Fifth Edition: A Practical Guide / Gerald Farin. Morgan-Kaufmann, 2002	

Languages necessary to complete the course: english					
Notes:					
Past grade distribution Total number of evaluated students: 133					
A	B	C	D	E	FX
13,53	16,54	19,55	27,82	16,54	6,02
Lecturers: RNDr. Soňa Kudličková, CSc., RNDr. Martina Bátorová, PhD.					
Last change: 25.01.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAG/1-MAT-551/10		Course title: Geometry for Graphics (1)			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 5.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 505					
A	B	C	D	E	FX
21,19	14,65	18,81	19,8	17,82	7,72
Lecturers: Mgr. Ľudovít Balko, PhD.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAG/1-MAT-552/10		Course title: Geometry for Graphics (2)			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 301					
A	B	C	D	E	FX
22,26	11,96	15,95	20,93	27,24	1,66
Lecturers: Mgr. Ľudovít Balko, PhD.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-151/00		Course title: German Language (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: German language is taught at three levels: beginner, intermediate and advanced. Students opt for one of them depending on whether they need to learn the fundamentals or maintain and/or improve their previous knowledge.					
Recommended literature: Vilášek, P.: Nemčina pre študentov FMFI, Na webovej stránke autora v elektronickej podobe.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 717					
A	B	C	D	E	FX
35,43	27,62	19,8	9,21	2,79	5,16
Lecturers: Mgr. Alexandra Maďarová, Mgr. Marián Mancovič					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-152/00		Course title: German Language (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The course continues the program of German language (1). German language is taught at three levels: beginner, intermediate, advanced.					
Recommended literature: Vilášek, P.: Nemčina pre študentov FMFI, Na webovej stránke autora v elektronickej podobe.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 468					
A	B	C	D	E	FX
35,47	20,51	20,73	13,46	3,42	6,41
Lecturers: Mgr. Alexandra Maďarová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-251/00		Course title: German Language (3)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject continues the program of German language (2). It provides a course of intermediate and advanced German language.					
Recommended literature: Vilášek, P.: Nemčina pre študentov FMFI, Na webovej stránke autora v elektronickej podobe. Aus moderner Technik und Naturwissenschaft, 1999, Max Hueber Verlag, D-85737, ISBN 3-19-001629-1					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 158					
A	B	C	D	E	FX
39,24	26,58	21,52	6,96	2,53	3,16
Lecturers: Mgr. Alexandra Maďarová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJP/1-MXX-252/00		Course title: German Language (4)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject continues the program of German language (3). It provides a course of intermediate and advanced German language.					
Recommended literature: Vilášek, P.: Nemčina pre študentov FMFI, Na webovej stránke autora v elektronickej podobe. Vilma Václavíková: Nemčina pre študentov MFF UK, Vysokoškolský učebný text pre potrebu študentov KJP, č. 9793/1982 C VIII/2, 1983					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 85					
A	B	C	D	E	FX
40,0	25,88	12,94	11,76	3,53	5,88
Lecturers: Mgr. Alexandra Maďarová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KI/2-INF-174/15		Course title: Graph Theory			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 3 / 1 per level/semester: 42 / 14 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I., II.					
Prerequisites:					
Recommended prerequisites: 1-INF-160					
Course requirements: Exam Scale of assessment (preliminary/final): 0/100					
Learning outcomes: The course will provide students with solid foundations of graph theory by proving key classical theorems and explaining the most important graph algorithms. Emphasis is also placed on motivation from other scientific disciplines and technology and possible applications of the covered topics.					
Class syllabus: Basic terminology: trees, bipartite graphs, graph and labyrinth search. Eulerian graphs. matchings in graphs, König's theorem, Hall theorem and its corollaries. measuring of graph connectivity. Menger's theorem, Planar graphs, Euler's theorem. Kuratowski's theorem. Graph coloring: some NP-hard problems, greedy algorithm. Brooks' theorem. Vizing's theorem. Coloring of planar graphs. Flows, Ford–Fulkerson algorithm and its applications. Integer and group flows, relationship to coloring. Hamiltonian graphs. Chvátal's theorem. Random graphs, probabilistic models, properties of random graphs.					
Recommended literature:					
Languages necessary to complete the course: Slovak, English.					
Notes:					
Past grade distribution Total number of evaluated students: 66					
A	B	C	D	E	FX
34,85	21,21	15,15	18,18	9,09	1,52
Lecturers: doc. RNDr. Edita Mačajová, PhD., prof. RNDr. Martin Škoviera, PhD.					

Last change: 10.05.2016
Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-413/18		Course title: Graphs, Graphic Algorithms and Optimization			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-413/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 41					
A	B	C	D	E	FX
24,39	26,83	17,07	17,07	2,44	12,2
Lecturers: doc. RNDr. Tatiana Jajcayová, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-MXX-491/15		Course title: Integrated Education of People with Disabilities			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 39					
A	B	C	D	E	FX
87,18	10,26	0,0	0,0	0,0	2,56
Lecturers: PaedDr. Elena Mendelová, CSc.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-304/15	Course title: Introduction to Artificial Intelligence
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 5.	
Educational level: I.	
Prerequisites:	
Course requirements: Students can gain 25% for exercises, 10% for tests and 15% for the project. Students have to earn at least half from each of these. The final exam is worth 50% of the total mark. If students do not meet the minimal condition from the semester, then they cannot pass the exam. Scale of assessment (preliminary/final): Practical work 50% (25% for exercises, 10% for tests, 15% for the project).50% for the final exam.Grading: A 91-100%, B 81-90%, C 71-80%, D 61-70%, E 51-60%, Fx < 51%	
Learning outcomes: Students get the basic insight into artificial intelligence, that can be further extended in the master studies. The course covers the basics of symbolic and subsymbolic artificial intelligence. The theory is combined with numerous practical exercises.	
Class syllabus: Definition of AI, description of simple rational agents. Logical agents, uninformed and informed search in solution space, the basics of game theory, problems with restrictive conditions, optimization, more complex agents capable of inference and learning. Propositional logic and inference using the knowledge base. Learning from examples: supervised learning, classification and regression, multilayer feedforward neural network and its applications, model selection, generalization. Nonparametric models, nearest neighbor methods, clustering, self-organization.	
Recommended literature: Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach (3rd edition), Prentice Hall, USA, 2010.	
Languages necessary to complete the course: English, Slovak	
Notes:	

Past grade distribution					
Total number of evaluated students: 105					
A	B	C	D	E	FX
12,38	18,1	20,0	18,1	15,24	16,19
Lecturers: prof. RNDr. Ľubica Beňušková, PhD., doc. RNDr. Mária Markošová, PhD.					
Last change: 23.01.2019					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-132/12		Course title: Introduction to BSc Project			
Educational activities: Type of activities: seminar Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 5.					
Educational level: I.					
Prerequisites: (FMFI.KAI/1-AIN-232/17 - Project (1) and leboFMFI.KAI/1-AIN-231/11 - Project (1)),(FMFI.KAI/1-AIN-262/17 - Project (2) and leboFMFI.KAI/1-AIN-261/11 - Project (2))					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 532					
A	B	C	D	E	FX
61,09	22,56	9,77	0,56	2,63	3,38
Lecturers: Mgr. Pavel Petrovič, PhD., RNDr. Andrej Blaho, PhD.					
Last change: 24.10.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KI/1-INF-230/00		Course title: Introduction to Database Systems			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-221/15 and FMFI.KAI/1-AIN-222/15					
Course requirements: homeworks, final exam Scale of assessment (preliminary/final): 50/50					
Learning outcomes: Students will be familiar with problems of database system use and implementation and techniques of solving these problems. The course will introduce the theory and practice of relational model and transaction systems. Students will be able to use the SQL relational language, Datalog and principles of relational database design.					
Class syllabus: Data models, the architecture of DBMS and modelling of reality; relational model; relational query languages, SQL, the theory of relational databases design (functional dependences, keys and normal forms), logical and deductive databases, datalog, negation in databases, transactions and the processing of transactions, data structures for two-level memory, physical algebra.					
Recommended literature: Foundations of databases / Serge Abiteboul, Richard Hull, Victor Vianu. Reading : Addison-Wesley, 1995 Database systems : The complete book / Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer Widom. Upper Saddle River : Prentice-Hall, 2002					
Languages necessary to complete the course: Slovak, English					
Notes:					
Past grade distribution Total number of evaluated students: 752					
A	B	C	D	E	FX
16,22	10,37	16,22	13,03	18,62	25,53
Lecturers: doc. Mgr. Tomáš Plachetka, Dr., doc. RNDr. Ján Mazák, PhD.					

Last change: 09.02.2018
Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KI/1-INF-520/00	Course title: Introduction to Information Security
Educational activities: Type of activities: lecture Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning	
Number of credits: 4	
Recommended semester: 6.	
Educational level: I.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus: The role of information security. The major security attributes of information (confidentiality, availability, authenticity, integrity, privacy, etc.) Basic notions of information security (system, asset, threat, vulnerability, risk). Building a new or securing an existing IT system. Security projects (description of the system and of its environment, identification of relevant threats, qualitative risk analysis, contrameasures). Risk management (incident handling, disaster recovery, business continuity planning). Management of information security. Evaluation and certification of IT system/product. Introduction to cryptology and PKI.	
Recommended literature: An Introduction to Computer Security. The NIST Handbook., volume 800-12 of NIST Special Publication. NIST, 1996. Swanson M. Guide for Developing Security Plans for Information Technology Systems, volume 800-18 of NIST Special Publication. NIST, 1998. Swanson M. and Guttman B. Generally Accepted Principles and Practices for Securing Information Technology Systems, volume 800-14 of NIST Special Publication. NIST, 1996. International Standard ISO/IEC 17799, Information technology - Code of practice for information security management., ISO/IEC, 2000. BS 7799 Information Security management - Part 2: Specification for information security management systems, Version 4.4 Draft for public comment, Bsi, 2002 Common Methodology for Information Technology Security Evaluation, Introduction and General Model, volume 1 of CEM 97/017. ISO/IEC, 1997. International Standard ISO/IEC 15408 Common Criteria for Information Technology Security Evaluation. Annexes, volume 2a. ISO/IEC, 1998. International Standard ISO/IEC 15408 Common Criteria for Information Technology Security Evaluation. Introduction and General Model, volume 1. ISO/IEC, 1998. International Standard ISO/IEC 15408 Common Criteria for Information Technology Security Evaluation, Security Assurance Requirements, volume 3. ISO/IEC, 1998.	

International Standard ISO/IEC 15408 Common Criteria for Information Technology Security Evaluation. Security Functional Requirements, volume 2. ISO/IEC, 1998.
Common Methodology for Information Technology Security Evaluation, Evaluation Methodology, volume 2 of CEM 99/045. ISO/IEC, 1999.
Stoneburner G., Goguen A., and Feringa A. Risk Management Guide for Information Technology Systems. Recommendations of the National Institute of Standards and Technology, volume 800-30 of NIST Special Publication. NIST, 2001.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 918

A	B	C	D	E	FX
11,55	10,68	22,98	32,14	22,11	0,54

Lecturers: doc. RNDr. Daniel Olejár, PhD., RNDr. Michal Rjaško, PhD.

Last change: 02.06.2015

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI+KDMFI/1-AIN-211/10		Course title: Introduction to Theoretical Informatics			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 4.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-160/15 - Mathematics (3) - Discrete Mathematics,FMFI.KDMFI+KAI/1-AIN-210/15 - Algorithms and Data Structures					
Antirequisites: FMFI.KI/1-INF-215/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 815					
A	B	C	D	E	FX
5,64	11,04	14,6	21,23	31,66	15,83
Lecturers: RNDr. Michal Winczer, PhD., doc. Mgr. Tomáš Vinař, PhD., RNDr. Andrej Blaho, PhD.					
Last change: 21.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KI/1-INF-415/00	Course title: Introduction to Theory of Programming
Educational activities: Type of activities: course Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning	
Number of credits: 4	
Recommended semester: 4.	
Educational level: I.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus: Program schemes - basic notions - standard scheme, interpretation, Herbrand interpretations, properties of program schemes - decidability of basic properties - basic undecidability results, subclasses of schemes with decidable properties (free and Yanov schemes) - comparative schematology - relations between classes of standard, structured and recursive schemes, partially interpreted schemes Program correctness - partial and total correctness - invariants, inductive formulas, weakest precondition, strongest postcondition - proof methods - Floyd method, Hoare-like proof systems, used induction principles, proving properties of recursive programs - systematic development of correct programs Semantics of programs and languages - program meaning - principles of operational, denotational and axiomatic semantics - semantic domains - algebraic structure, construction of domains - formal semantics - operational and denotational semantics of imperative and recursive programs, types and semantics - comparison of operational and denotational semantics - imperative programs, recursive programs (correctness of computational rules, criteria of correctness)	
Recommended literature: Prívara, I.: Introduction to Theory of Programming, textbook (and transparencies) - in Slovak	
Languages necessary to complete the course:	
Notes:	

Past grade distribution					
Total number of evaluated students: 92					
A	B	C	D	E	FX
20,65	21,74	23,91	17,39	10,87	5,43
Lecturers: RNDr. Igor Prívara, CSc.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/1-AIN-112/15		Course title: Introduction to Web Technologies			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KZVI/1-AIN-610/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2187					
A	B	C	D	E	FX
41,38	14,45	14,13	11,71	8,82	9,51
Lecturers: PaedDr. Roman Hrušecký, PhD., RNDr. Marek Nagy, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-406/15		Course title: Language and Cognition			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 2., 4., 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 95					
A	B	C	D	E	FX
28,42	27,37	20,0	14,74	3,16	6,32
Lecturers: doc. PhDr. Ján Rybár, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAG+KAI/1-AIN-152/15		Course title: Linear Algebra			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites: FMFI.KMANM/1-AIN-188/17 - Mathematics (2) - Mathematical Analysis,FMFI.KAI/1-AIN-160/15 - Mathematics (3) - Discrete Mathematics					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 56					
A	B	C	D	E	FX
39,29	25,0	17,86	8,93	5,36	3,57
Lecturers: doc. RNDr. Tatiana Jajcayová, PhD., doc. RNDr. Róbert Jajcay, DrSc.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-510/15		Course title: Linux - Principles and Means			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-510/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 972					
A	B	C	D	E	FX
51,44	16,26	12,04	8,13	7,3	4,84
Lecturers: RNDr. Marek Nagy, PhD., Mgr. Ján Kľuka, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-500/00		Course title: Linux for Users			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes: The aim of the course is to acquire skills to work on the command line of Linux operating system. The course is designed not only for beginners.					
Class syllabus: Text console Directories and files Users, groups, redirection and searching Atributes of files and directories Text editor vim Sorting and selecting Finding Processes sed - stream editor awk bash scripts					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1545					
A	B	C	D	E	FX
42,72	15,86	14,11	10,61	11,65	5,05
Lecturers: RNDr. Marek Nagy, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-121/15		Course title: Mathematics (1) - Introduction to Mathematical Reasoning			
Educational activities: Type of activities: course Number of hours: per week: 6 per level/semester: 84 Form of the course: on-site learning					
Number of credits: 8					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1616					
A	B	C	D	E	FX
7,12	9,34	21,23	26,86	15,53	19,93
Lecturers: doc. RNDr. Tatiana Jajcayová, PhD., Ing. Ján Komara, PhD., Mgr. Peter Náther, PhD., PaedDr. Daniela Bezáková, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KMANM/1-AIN-188/17		Course title: Mathematics (2) - Mathematical Analysis			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 3 per level/semester: 28 / 42 Form of the course: on-site learning					
Number of credits: 7					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 346					
A	B	C	D	E	FX
10,69	13,87	20,52	28,61	21,1	5,2
Lecturers: doc. RNDr. Zbyněk Kubáček, CSc., PaedDr. Peter Vankúš, PhD., RNDr. František Jaroš, PhD., Ing. Ján Komara, PhD., Mgr. Martina Babinská, PhD., RNDr. Michal Demetrian, PhD.					
Last change: 21.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-160/15		Course title: Mathematics (3) - Discrete Mathematics			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 3.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-121/15 - Mathematics (1) - Introduction to Mathematical Reasoning					
Antirequisites: FMFI.KAI/1-AIN-160/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1229					
A	B	C	D	E	FX
5,53	7,65	17,98	27,99	25,06	15,79
Lecturers: doc. RNDr. Tatiana Jajcayová, PhD., Ing. Ján Komara, PhD., Mgr. Peter Náther, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-412/15		Course title: Mathematics (4) - Logic for Computer Science			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 4 per level/semester: 28 / 56 Form of the course: on-site learning					
Number of credits: 7					
Recommended semester: 4.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-160/15 - Mathematics (3) - Discrete Mathematics					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1317					
A	B	C	D	E	FX
14,2	10,02	14,5	19,44	27,03	14,81
Lecturers: Mgr. Ján Kľuka, PhD., RNDr. Jozef Šiška, PhD., doc. RNDr. Martin Homola, PhD., Mgr. Júlia Pukancová, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-472/15		Course title: Mobile Application Developement			
Educational activities: Type of activities: lecture / independent work Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-472/12					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 304					
A	B	C	D	E	FX
31,25	7,24	15,46	17,11	23,68	5,26
Lecturers: RNDr. Peter Borovanský, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-MAT-570/15		Course title: Modelling and Rendering Techniques			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-MAT-570/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 32					
A	B	C	D	E	FX
25,0	28,13	15,63	9,38	15,63	6,25
Lecturers: prof. RNDr. Roman Ďurikovič, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-530/00		Course title: Multimedia			
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Multimedia, basic terms, examples, multimedia production, computer graphics - basic terms, multimedia formats, software for image manipulation, animation - introduction, animation formats, software for animation production, audio - basic terms, audio formats, audio editing software, digital video - basic terms, DV formats, DV production software, authoring software.					
Recommended literature: Holsinger, E.: Jak pracují multimedia, Brno, UNIS 1995 Kireš, M., Šnajder, Ľ., Kalakay, R.: Multimédiá pre učiteľa, Bratislava, ÚIPŠ 2002 Ružický, E.: Úvod do počítačovej grafiky, Bratislava, UK 1991 Salanci, Ľ.: Práca s grafikou. Bratislava, SPN 2000 www.w3schools.com/media www.scantips.com					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 873					
A	B	C	D	E	FX
61,63	28,06	7,1	0,57	0,11	2,52
Lecturers: Ľubomír Lúčan, CSc.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-675/00	Course title: Philophy of Internet
Educational activities: Type of activities: lecture Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 6.	
Educational level: I.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus: Brief history of information Internet and physical space, virtualization Internet and authors Small worlds and internet Power of searching machines Wikinomics and Wisdom of Crowd Internet and social networks	
Recommended literature: David A. Vise, Mark Malseed, The Google Story, Pragma, 2007 Pavol Rankov, Information society - perspectives, problems, paradoxes (in Slovak), LCA Publishers Group, Levice, 2007 Radana Divínová, Cybersex - Form of Internet Communication (in Czech), TRITON, Praha, 2005 Barabási, Albert-László, Linked, Paseka, Praha, 2005 Sherry Turkle, Life on the Screen, Identity in the Age of the Internet, Simon & Schuster, New York, 1995 Hubert L. Dreyfus, On the Internet, Thinking in Action, Routledge, Taylor & Francis Group, London and New York, 2001 David Weinberger, Small Pieces Loosely Joined {a unified theory of a web}, Perseus Publishing, 2002 John Battelle, The Search, Portfolio, Penguin Books, New York, 2006 Don Tapscott, Anthony D. Williams, WIKINOMICS, How Mass Collaboration Changed Everything, Portfolio, Penguin Books, New York, 2006 James Surowiecki, The Wisdom of Crowds, Abacus, London 2004	
Languages necessary to complete the course:	
Notes:	

Past grade distribution					
Total number of evaluated students: 586					
A	B	C	D	E	FX
67,92	13,31	9,39	3,58	0,68	5,12
Lecturers: Ing. František Gyarfaš, CSc.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-110/00		Course title: Physical Education and Sport (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 0					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: According to the particular sport: practicing of individual game skills in sports like basketball, volleyball, soccer, floorball. Training in the individual sports like swimming, trampoline jumping, rowing and canoeing, aerobic, bodybuiding, command of fundamental technique of sports discipline. To arrange development of coordination abilities, articular mobility and cardiovascular system.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 5336					
A	B	C	D	E	FX
96,03	1,65	0,09	0,0	0,06	2,17
Lecturers: Mgr. Ladislav Mókus, Mgr. Ondrej Podkonický, PaedDr. Dana Mašlejová, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 25.05.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KTV/1-MXX-120/00		Course title: Physical Education and Sport (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 0					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Practising offensive and defensive combinations and game at modified rules in collective games such as basketball, volleyball, soccer, floorball. Command of elements of higher difficulty in terms of the level of the activity abilities (crawl stroke, breast stroke, butterfly stroke, trampoline jump, aerobic compositions with steps, fitball, elastic gums, paddling on the running water.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 4404					
A	B	C	D	E	FX
97,66	1,7	0,05	0,02	0,02	0,54
Lecturers: Mgr. Tomáš Kuchár, PhD., Mgr. Ondrej Podkonický, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-210/00		Course title: Physical Education and Sport (3)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: To practise game combinations, tactical - mechanical elements in basketball, volleyball, soccer, floorball, ice hockey, badminton, competition rules in the sports specialization.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2683					
A	B	C	D	E	FX
98,66	0,52	0,07	0,0	0,0	0,75
Lecturers: Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Ondrej Podkonický, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-220/00		Course title: Physical Education and Sport (4)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Preparation for sport championships of the Faculty in the chosen sport at modified rules. The selection of talented students into the teams of the University and Faculty leagues and other faculty sport events.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2370					
A	B	C	D	E	FX
99,16	0,17	0,04	0,04	0,0	0,59
Lecturers: Mgr. Tomáš Kuchár, PhD., Mgr. Ladislav Mókus, Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ondrej Podkonický, PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-310/00		Course title: Physical Education and Sport (5)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Preparation and participation of individuals and teams in the system of university sport competitions and sport events.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1775					
A	B	C	D	E	FX
99,04	0,39	0,11	0,0	0,0	0,45
Lecturers: Mgr. Tomáš Kuchár, PhD., Mgr. Ladislav Mókus, Mgr. Ondrej Podkonický, Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-320/00		Course title: Physical Education and Sport (6)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Using the communication in the physical education and sport and organizing the sport championships to achieve expressive motion of the sport and health in a valuable orientation the students.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1534					
A	B	C	D	E	FX
99,15	0,26	0,13	0,0	0,0	0,46
Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Ondrej Podkonický, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-167/15		Course title: Practical Classes in Robotics			
Educational activities: Type of activities: seminar Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 47					
A	B	C	D	E	FX
72,34	8,51	12,77	2,13	2,13	2,13
Lecturers: Mgr. Pavel Petrovič, PhD.					
Last change: 24.10.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAMŠ/2-INF-175/18		Course title: Probability and Statistics			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 5.					
Educational level: I., II.					
Prerequisites:					
Antirequisites: FMFI.KAMŠ/2-INF-175/15					
Course requirements: written tests, final exam Scale of assessment (preliminary/final): 30/70					
Learning outcomes: Students will be familiar with mathematical foundations of probability and statistics. They will be able to solve common types of problems involving probability and conduct simple statistical analyses.					
Class syllabus: Definition of probabilistic model and basic properties of probability, conditional probability, Bayes theorems, random variables, random vectors and their characteristics, limit theorems, introduction to Markov chain theory, probabilistic theory of information, regression model with normally distributed errors, introduction to theory of parameter estimation and statistical hypothesis testing					
Recommended literature: Pravdepodobnosť a matematická štatistika : Štatistické analýzy / František Lamoš, Rastislav Potocký. Bratislava : Univerzita Komenského, 1998 Zbierka úloh zo základov teórie pravdepodobnosti / Radoslav Harman, Erika Hönschová, Ján Somorčík. Bratislava : PACI, 2009 Electronic course notes published on the course web site					
Languages necessary to complete the course: Slovak, English					
Notes:					
Past grade distribution Total number of evaluated students: 140					
A	B	C	D	E	FX
29,29	7,86	18,57	16,43	18,57	9,29
Lecturers: Mgr. Lenka Filová, PhD., Mgr. Lívia Rosová, PhD.					

Last change: 13.05.2018
Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-130/16		Course title: Programming (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 4 per level/semester: 56 / 56 Form of the course: on-site learning					
Number of credits: 9					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-130/13					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 828					
A	B	C	D	E	FX
26,33	10,27	9,42	8,09	15,22	30,68
Lecturers: RNDr. Andrej Blaho, PhD., PaedDr. Daniela Bezáková, PhD., PaedDr. Andrea Hrušecká, PhD.					
Last change: 18.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-170/13		Course title: Programming (2)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-130/16 - Programming (1) and leboFMFI.KAI/1-AIN-130/16 - Programming (1)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1269					
A	B	C	D	E	FX
27,97	8,43	10,95	13,0	22,06	17,57
Lecturers: RNDr. Andrej Blaho, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/1-AIN-171/10	Course title: Programming (3)
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 3.	
Educational level: I.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus: - Data structures, Functions, Global and Local Variables - Structures, Classes, Types - Objects, Polymorphism, Object Oriented Design - Methods, Virtual Methods and Classes, Arguments - Constructors, Destructors - Operators and Overloading - Class Hierarchies, Abstract Classes, Inheritance - Pointers and Pointer Arithmetic - Streams - Templates and STL - Exceptions - Parallelism	
Recommended literature: Gottschling, Peter, Discovering Modern C++, The C++ In-Depth Series, Addison-Wesley, 2016 2. Meyers, Scott, Effective Modern C++, 42 Specific Ways to Improve Your Use of C++11 and C++14, O'Reily, 2015 3. Stroustrup, Bjarne, A Tour of C++, The C++ In-Depth Series, Addison-Wesley, 2014 4. Meyers, Scott, Effective C++, 50 Specific Ways to Improve Your Programs and Design, Addison-Wesley, 2002 5. Eckel, Bruce, Thinking in C++, 2nd ed., Prentice Hall, 2000 (existuje online verzia - http://www.datastore.cz/bruceeckel/) 6. Meyers, Scott, More Effective C++: 35 New Ways to Improve Your Programs and Designs, Addison-Wesley, 1995 7. Martin, Robert C., Clean Code: A Handbook of Agile Software Craftsmanship, Robert C. Martin Series, Prentice Hall, 2009	

8. Holub, Allen I., Enough Rope to Shoot Yourself in the Foot, Rules fro C and C++ Programming, McGraw-Hill, 1995					
9. Holub, Allen I., The C Companion, Prentice-Hall, Inc., New Jersey, 1987					
Languages necessary to complete the course:					
Notes:					
Past grade distribution					
Total number of evaluated students: 1200					
A	B	C	D	E	FX
28,08	15,58	10,08	12,17	20,0	14,08
Lecturers: Ing. František Gyarfaš, CSc.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-172/00		Course title: Programming (4)			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 5					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: - basic programming constructs of the language, comparison with C++ - basic data types and language components - fundamental JAVA libraries - object-orient programming in JAVA - data structures and algoritms - threads and concurrent programs - design of applets and applications with user's interface - JavaFX					
Recommended literature: Eckel,B.: Thinking in Java, Prentice Hall, 1997, Goodrich,M.T, Tamassia,R.: Data Structures and Algorithms in Java, 3rd Ed., John Wiley & Sons, 2004,www.datastructures.net, Herout,P.: Učebnice jazyka Java, Kopp,2003, Weiss M.A.: Data Structures & Problem Solving Using Java, Addison Wesley, 1998.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 540					
A	B	C	D	E	FX
32,22	12,04	20,37	17,96	14,26	3,15
Lecturers: RNDr. Peter Borovanský, PhD.					
Last change: 30.01.2020					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KDMFI/1-AIN-302/17		Course title: Programming (5)			
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 160					
A	B	C	D	E	FX
56,25	5,63	10,63	10,0	11,88	5,63
Lecturers: doc. RNDr. Ľubomír Salanci, PhD.					
Last change: 09.01.2019					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-430/15		Course title: Programming Paradigms			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAI/1-AIN-430/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 352					
A	B	C	D	E	FX
23,86	7,1	11,93	19,6	36,93	0,57
Lecturers: RNDr. Peter Borovanský, PhD.					
Last change: 30.01.2020					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-232/17		Course title: Project (1)			
Educational activities: Type of activities: independent work Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 363					
A	B	C	D	E	FX
52,62	12,95	11,85	3,86	7,16	11,57
Lecturers: Ľubomír Lúčan, CSc., doc. RNDr. Damas Gruska, PhD.					
Last change: 04.10.2019					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-AIN-262/17		Course title: Project (2)			
Educational activities: Type of activities: independent work Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 4.					
Educational level: I.					
Prerequisites: FMFI.KAI/1-AIN-232/17 - Project (1)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 287					
A	B	C	D	E	FX
51,92	19,51	9,41	7,32	4,53	7,32
Lecturers: Ľubomír Lúčan, CSc., doc. RNDr. Damas Gruska, PhD.					
Last change: 04.10.2019					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-UXX-340/00		Course title: Recreation Sports in Dially Routine of Pupils and Students			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: To optimize the daily working programme of the students, the programmes of the sport recreational activities and time-off the students. The sport and health in a value orientation of the students. Using developed elemens in an education physical activity and sport preparation. The programmes of the sport recreational activities as a basic precondition of health strengthening, acquirement of physical capability, fitness, regaining of working energy and readiness of body to confront stress situations and dangerous factors as a basic precondition of health strengthening, acquirement of physical capability, fitness, regaining of working energy and readiness of body to confront stress situations and dangerous factors.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 44					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Tomáš Kuchár, PhD.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-161/00		Course title: Russian Language (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject provides a course in Russian language for beginners.					
Recommended literature: The textbook has not been published. It is at students' disposal in an electronic format.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 685					
A	B	C	D	E	FX
58,98	16,35	10,51	4,53	1,9	7,74
Lecturers: PhDr. Elena Klátiková					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-162/00		Course title: Russian Language (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The subject continues the program of Russian language (1) and provides a course of Russian for beginners.					
Recommended literature: The textbook has not been published. It is at students' disposal in an electronic format.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 414					
A	B	C	D	E	FX
65,94	15,22	8,7	3,86	0,97	5,31
Lecturers: PhDr. Elena Klátiková					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-261/00		Course title: Russian Language (3)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 3.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The course "Russian for Intermediate Students" is a follow-up to "Russian for Beginners". The subject of the course is general Russian in the range appropriate to the given level.					
Recommended literature: The textbook has not been published. It is at students' disposal in an electronic format.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 197					
A	B	C	D	E	FX
70,05	17,77	8,63	2,54	0,0	1,02
Lecturers: PhDr. Elena Klátiková					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-262/00		Course title: Russian Language (4)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 4.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The course "Russian for Intermediate Students" is a follow-up to "Russian for Beginners". The subject of the course is general Russian in the range appropriate to the given level.					
Recommended literature: The textbook has not been published. It is at students' disposal in an electronic format.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 142					
A	B	C	D	E	FX
75,35	13,38	7,04	2,82	0,7	0,7
Lecturers: PhDr. Elena Klátiková					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAI/2-IKVa-192/19	Course title: Science, Technology and Humanity: Opportunities and Risks
Educational activities: Type of activities: seminar Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: I., II.	
Prerequisites:	
Course requirements: Semestral evaluation: active participation Final evaluation: essay Weight of the final evaluation: 60% To achieve an A, 90% is needed, for B at least 80%, for C 70%, for D, 60% and for an E, at least 50% of overall assessment.	
Learning outcomes: The students will gain awareness of the contemporary and potential future challenges posed by scientific and technological innovations and their impact on human behaviour, culture and society.	
Class syllabus: Big data: privacy, politics and power, Internet of things, its usefulness and threats, Assistant AI and its place in future society, Job market and inequality, Enhancements and human rights and the right to change self and others, Initiatives for responsible research, Artificial minds, Hybridization between species and between AI and organic minds, Future of minds and trans-humanism, Artificial emotional intelligence, An after human era.	
Recommended literature: - S. Russell: Human compatible. Artificial intelligence and the problem of control. Viking, 2019. - J. Havens: Heartificial intelligence. Embracing our humanity to maximize machines. Penguin, 2016. - P. Boddington: Towards a code of ethics for artificial intelligence. Springer, 2017. - M. Shanahan: The technological singularity. MIT Press, 2015. - C. MacKellar, C.: Cyborg Mind: What Brain–Computer and Mind–Cyberspace Interfaces Mean for Cyberneuroethics. Berghahn Books, 2019.	

- G. Bel, J. Gemmell: Total Recall, How the e-Memory Revolution will change everything. Dutton, 2009.
- S. Zuboff: The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. PublicAffairs, 2019.
- C. O'Neil: Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy. Crown Publishers, 2016.
- M. Tegmark: Life 3.0. Allen Lane, 2017.

Languages necessary to complete the course:

English

Notes:

Past grade distribution

Total number of evaluated students: 25

A	B	C	D	E	FX
72,0	20,0	0,0	4,0	4,0	0,0

Lecturers: doc. RNDr. Martin Takáč, PhD., PhDr. Ing. Tomáš Gál, PhD.

Last change: 28.02.2020

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-315/15		Course title: Semistructured Data (XML, JSON and NoSQL)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 0					
A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: RNDr. Martin Baláž, PhD., Mgr. Ján Kľúka, PhD.					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/1-INF-175/00		Course title: Social Aspects of Informatics			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KDMFI/1-UXX-332/10 and FMFI.KZVI/1-UXX-333/10					
Course requirements: homeworks Scale of assessment (preliminary/final): 100/0					
Learning outcomes: Students will be motivated to think about the impact of information and communication technologies on our lives. Students will be familiar with historical perspective of this impact.					
Class syllabus: New ICT are developed and improved very rapidly. They are becoming an invisible part of our everyday life. We try to look at changes introduced by ICT, what positive they are introducing and what the risks are too. We try to analyse different areas of society: education system, medical care, arts, business, finance, manufacturing, etc. Especially we deal with Slovak copyright law and computer crime.					
Recommended literature: Abelson, Ledeen, Lewis, Blown To Bits, Addison Wesley 2008, www.bitsbook.com Materials shared at the course website					
Languages necessary to complete the course: Slovak, English					
Notes:					
Past grade distribution Total number of evaluated students: 1672					
A	B	C	D	E	FX
68,84	9,27	4,31	11,36	3,05	3,17
Lecturers: RNDr. Michal Winczer, PhD.					
Last change: 08.02.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAI/1-AIN-470/15	Course title: Specification and Verification of Programs
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 6.	
Educational level: I., II.	
Prerequisites:	
Antirequisites: FMFI.KAI/1-AIN-470/00	
Course requirements: Preliminary assessment: two tests 60%. Final exam: test 40%. Scale: A 90%, B 80%, C 70%, D 60%, E 50%. Scale of assessment (preliminary/final): 60/40	
Learning outcomes: The course develops students' ability to demonstrate the correctness of programs, formally specify the required properties and proving them using various methods, particularly structural induction. Graduates gain knowledge of a particular formalization of recursive programs, proving their properties within a single logical theory Peano arithmetic. They also get hands-on experience with the specification and verification of a large number of programs.	
Class syllabus: 1. Declarative Programming. Primitive recursion. Recursion with measure. Iterative recursion. Recursion on notation. Pairing function and arithmetization. Structural recursion. 2. Specification-verification System. Peano Arithmetic. Mathematical induction. Extensions of arithmetic. Derived induction principles: complete induction, measure induction, structural induction. 3. Data Structures. Strings. Lists. Basic operations over lists. Sorting of lists. Applications of lists. Binary trees. Basic operations over binary trees. Binary search trees. Applications of trees. Symbolic expressions. Interpreter of programming language. Universal function.	
Recommended literature: [1] Specification and Verification of Programs / Ján Komara. Online. [2] Introduction to Declarative Programming / Ján Kľuka. In Slovak. Online.	
Languages necessary to complete the course: slovak, english	
Notes:	

Past grade distribution					
Total number of evaluated students: 58					
A	B	C	D	E	FX
18,97	1,72	6,9	8,62	32,76	31,03
Lecturers: doc. RNDr. Damas Gruska, PhD., Ing. Ján Komara, PhD., Mgr. Ján Klůka, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-115/15		Course title: Sports in Nature (1)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 221					
A	B	C	D	E	FX
99,55	0,0	0,45	0,0	0,0	0,0
Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Ondrej Podkonický, Mgr. Branislav Nedbálek					
Last change: 25.05.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-215/15		Course title: Sports in Nature (2)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 153					
A	B	C	D	E	FX
99,35	0,0	0,0	0,0	0,0	0,65
Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Ondrej Podkonický, Mgr. Branislav Nedbálek					
Last change: 25.05.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-216/18		Course title: Sports in Nature (3)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 19					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Branislav Nedbálek					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KTV/1-MXX-217/18		Course title: Sports in Nature (4)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning					
Number of credits: 1					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 5					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Branislav Nedbálek					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAMŠ/1-MXX-501/15		Course title: Statistics for Non-statisticians			
Educational activities: Type of activities: course Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KAMŠ/1-MXX-501/14					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 34					
A	B	C	D	E	FX
76,47	8,82	2,94	2,94	0,0	8,82
Lecturers: doc. Mgr. Ján Mačutek, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-133/18		Course title: Supplementary English Course (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 17					
A	B	C	D	E	FX
52,94	35,29	5,88	0,0	5,88	0,0
Lecturers: Mgr. Ing. Jana Kočvarová					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-134/18		Course title: Supplementary English Course (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 22					
A	B	C	D	E	FX
54,55	18,18	0,0	13,64	4,55	9,09
Lecturers: Mgr. Ing. Jana Kočvarová					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-316/16		Course title: Technologies of Digital Fabrication			
Educational activities: Type of activities: course Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 4., 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 64					
A	B	C	D	E	FX
76,56	12,5	6,25	1,56	3,13	0,0
Lecturers: Mgr. Pavel Petrovič, PhD., Ing. Jozef Vaško					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KAI/1-INF-810/15		Course title: Time-Restricted Programming (1)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KI+KZVI/1-INF-810/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 346					
A	B	C	D	E	FX
46,53	10,98	8,96	10,4	21,97	1,16
Lecturers: RNDr. Michal Foríšek, PhD.					
Last change: 04.10.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KI+KAI/1-INF-815/15		Course title: Time-Restricted Programming (2)			
Educational activities: Type of activities: practicals Number of hours: per week: 2 per level/semester: 28 Form of the course: on-site learning					
Number of credits: 2					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KI+KZVI/1-INF-815/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 292					
A	B	C	D	E	FX
43,84	10,62	9,25	8,22	26,03	2,05
Lecturers: RNDr. Michal Foríšek, PhD., RNDr. Michal Winczer, PhD.					
Last change: 04.10.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KI/2-INF-176/15	Course title: Unix for System Administrators
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning	
Number of credits: 6	
Recommended semester: 5.	
Educational level: I., II.	
Prerequisites:	
Course requirements: Practical assignments (both during the semester and on final exam) Scale of assessment (preliminary/final): 40/60	
Learning outcomes: After completing the course the students will know the principles of UNIX system administration and they will be able to practically carry out the basic duties of a system administrator.	
Class syllabus: users, groups, passwords access permissions for files and directories filesystem structure character and block devices special filesystem objects (symlink, pipe) mounting and unmounting of filesystems to the directory hierarchy (mount, umount, /etc/fstab) creating filesystems system startup and shutdown - /etc/inittab, runlevels job scheduling (cron, at, batch) TCP/IP configuration (ifconfig, route) network services (/etc/services, /etc/inetd.conf, /etc/protocols, /etc/hosts, ...) DNS – client (/etc/resolv.conf) DNS – server NFS Assumptions: good user-level knowledge of UNIX systems, directory hierarchy navigation, creating and editing files (vi, joe), shell programming (sh/bash), commands find, grep, cat, cut, ls, awk.	
Recommended literature: Course notes provided on the course website, freely available electronic materials	
Languages necessary to complete the course: Slovak, English	
Notes:	

Past grade distribution					
Total number of evaluated students: 148					
A	B	C	D	E	FX
13,51	33,78	32,43	10,81	6,08	3,38
Lecturers: RNDr. Jaroslav Janáček, PhD.					
Last change: 09.02.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/1-AIN-189/15		Course title: Web Applications (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KZVI/1-AIN-615/00					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 1772					
A	B	C	D	E	FX
36,4	11,79	12,7	12,47	13,37	13,26
Lecturers: PaedDr. Roman Hrušecký, PhD., RNDr. Marek Nagy, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KAI/1-AIN-244/15		Course title: Web Applications (2)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester: 4.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 202					
A	B	C	D	E	FX
41,58	10,4	13,86	9,41	12,38	12,38
Lecturers: RNDr. Marek Nagy, PhD.					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KDMFI/1-AIN-168/15		Course title: Web Applications in Praxis			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 2 / 2 per level/semester: 28 / 28 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester: 5.					
Educational level: I., II.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 196					
A	B	C	D	E	FX
29,08	15,82	19,9	19,39	10,71	5,1
Lecturers: Mgr. Martin Krupa, Mgr. Robert Mráz, Mgr. Ing. Matúš Tuna					
Last change: 22.09.2017					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KAG/1-MAT-560/00	Course title: Web Graphics
Educational activities: Type of activities: course Number of hours: per week: 4 per level/semester: 56 Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 5.	
Educational level: I.	
Prerequisites:	
Course requirements: Scale of assessment (preliminary/final): 30/70	
Learning outcomes:	
Class syllabus: 1. Basic definitions. Historic survey, state-of-the art and the future of WWW. Semantic Web a Digital Libraries. Mobile communication. Security, legal and social aspects. Webby awards. 2. Client-server architecture. Dominant web services and technologies. SGML, HTML, VRML, UML. Java, php, ASP.NET and others. Examples of proper use. MIME formats and RFC standards. WWW Consortium. 3. Text creation, digital typography and DTP. On-line publishing authoring legal aspects. 4. Creation and use of pictorial data for WWW. 5. WWW sound processing and applications. 6. Internet animations and video. 7. WWW virtual interaction. Face demo by Ken Perlin. WWW as a procedural sketch book. 8. Web design styles and rules after A. Glassner. 9. 3D web graphics, VRML a X3D. 10. Virtual galleries, gardens, thematic parks and chat rooms. 11. Social and philosophic aspects of virtual environments. Netiquette. Third wave by A. Toffler. History of virtual reality (Gibson, Krueger, Lanier, CAVE...). Cult movie Matrix and implications of its message. 12. Interakcia, navigácia a kooperácia vo virtuálnych prostrediach. Distribuovaná VR. Hry a simulátory. 13. Spájanie obrazu s textom. Vizuálna kritika web stránok. 14. Virtuálne mestá. Akvizícia, konštrukcia, prezentácia, aplikácie. 15. Groupware. Skupinová komunikácia. Avatari a on-line komunity. MPEG-7 a MPEG-21.	
Recommended literature: CGEMS (web stránka ACM SIGGRAPH, www.siggraph.org), pg.netgraphics.sk , TOFFLER, A. Third Wave. BERNERS-LEE, T. Semantic Web, Scientific American, May 2001.	

SIGGRAPH course notes by od A. Glassner and K. Perlin.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 941					
A	B	C	D	E	FX
22,85	28,06	23,7	11,8	4,78	8,82
Lecturers: doc. RNDr. Andrej Ferko, PhD.					
Last change: 02.06.2015					
Approved by:					