

Course descriptions

TABLE OF CONTENTS

1. 1-BMF-120/00	Anatomy (1).....	3
2. 1-BMF-155/00	Anatomy (2).....	4
3. 1-UFY-241/10	Atomic and Nuclear Physics.....	5
4. 1-BMF-910/15	BSc Project.....	6
5. 1-BMF-991/15	BSc Thesis Defense (state exam).....	7
6. 2-FOL-116/15	Basic Electronics.....	8
7. 1-BMF-255/00	Basics of Biochemistry.....	9
8. 1-BMF-220/00	Basics of Chemistry of Living Systems.....	10
9. 1-BMF-110/15	Basics of Mathematics (1).....	12
10. 1-BMF-150/15	Basics of Mathematics (2).....	13
11. 1-BMF-226/15	Basics of Mathematics (3).....	14
12. 1-BMF-261/15	Basics of Mathematics (4).....	15
13. 1-MAT-510/00	Biomathematics (1).....	16
14. 1-MAT-515/00	Biomathematics (2).....	17
15. 1-AIN-407/15	Brain and Mind.....	18
16. 1-BMF-961/15	Chemical and Biological Basics of Medicine (state exam).....	19
17. 1-AIN-408/15	Cognitive Laboratory.....	20
18. 1-BMF-181/15	Complementary Classes in Mechanics.....	21
19. 1-BMF-521/15	Computer Modelling.....	22
20. 1-FYZ-211/17	Electromagnetism and Optics.....	23
21. 1-MXX-233/13	English Conversation Course (1).....	24
22. 1-MXX-234/13	English Conversation Course (2).....	25
23. 1-MXX-131/00	English Language (1).....	26
24. 1-MXX-132/00	English Language (2).....	28
25. 1-MXX-231/00	English Language (3).....	29
26. 1-MXX-232/10	English Language (4).....	30
27. 1-FYZ-401/15	Fields of Physical Research.....	31
28. 1-MXX-141/00	French Language (1).....	32
29. 1-MXX-142/00	French Language (2).....	33
30. 1-MXX-241/00	French Language (3).....	34
31. 1-MXX-242/00	French Language (4).....	35
32. 1-BMF-335/15	Fundamentals of Biomedical Physics and Diagnosis.....	36
33. 1-BMF-951/15	Fundamentals of Physics (state exam).....	37
34. 1-FYZ-212/15	Fundamentals of Programming.....	38
35. 1-OZE-610/15	Fundamentals of Radiation Physics and Protection.....	39
36. 1-MXX-151/00	German Language (1).....	40
37. 1-MXX-152/00	German Language (2).....	41
38. 1-MXX-251/00	German Language (3).....	42
39. 1-MXX-252/00	German Language (4).....	43
40. 1-INF-240/15	Graphical Systems, Visualization, Multimedia.....	44
41. 1-BMF-160/00	Histology (1).....	45
42. 1-BMF-225/00	Histology (2).....	46
43. 1-MXX-491/15	Integrated Education of People with Disabilities.....	47
44. 1-BMF-311/15	Introduction to Biophysics.....	48
45. 1-MMN-130/00	Introduction to Management I.....	49
46. 1-BMF-331/18	Introductory Biostatistics.....	51
47. 1-AIN-406/15	Language and Cognition.....	52

48. 1-OZE-271/10	Laser Technique.....	53
49. 1-FYZ-116/17	Mathematical Methods in Physics (1).....	54
50. 1-FYZ-117/17	Mathematical Methods in Physics (2).....	55
51. 1-BMF-113/16	Mechanic.....	56
52. 1-BMF-125/00	Medical Biology.....	57
53. 1-BMF-330/15	Medical Immunology.....	59
54. 1-BMF-531/15	Medical Instruments.....	60
55. 1-BMF-325/15	Medical Microbiology.....	61
56. 1-BMF-130/00	Medical Terminology in Latin.....	62
57. 2-AIN-501/00	Methods in Bioinformatics.....	63
58. 1-BMF-315/00	Molecular Biology.....	65
59. 1-OZE-342/15	Physical Analytic Methods.....	67
60. 1-MXX-110/00	Physical Education and Sport (1).....	68
61. 1-MXX-120/00	Physical Education and Sport (2).....	69
62. 1-MXX-210/00	Physical Education and Sport (3).....	70
63. 1-MXX-220/00	Physical Education and Sport (4).....	71
64. 1-MXX-310/00	Physical Education and Sport (5).....	72
65. 1-MXX-320/00	Physical Education and Sport (6).....	73
66. 1-BMF-260/00	Physiology (1).....	74
67. 1-BMF-320/00	Physiology (2).....	76
68. 1-BMF-211/16	Practical I.....	78
69. 1-OZE-212/15	Practical II.....	79
70. 1-OZE-311/15	Practical III.....	80
71. 1-FYZ-360/00	Practical IV (Atomic and Nuclear Physics).....	81
72. 1-OZE-372/10	Practicum in Radiometry and Spectrometry.....	82
73. 1-BMF-227/15	Probability and Statistics.....	83
74. 1-AIN-130/16	Programming (1).....	84
75. 1-BMF-310/00	Quantum Mechanics.....	85
76. 1-OZE-244/15	Radiometric Measurements.....	86
77. 1-UXX-340/00	Recreation Sports in Dially Routine of Pupils and Students.....	87
78. 1-MXX-161/00	Russian Language (1).....	88
79. 1-MXX-162/00	Russian Language (2).....	89
80. 1-MXX-261/00	Russian Language (3).....	90
81. 1-MXX-262/00	Russian Language (4).....	91
82. 2-IKVa-192/19	Science, Technology and Humanity: Opportunities and Risks.....	92
83. 1-BMF-930/00	Seminar in BSc Project.....	94
84. 1-MXX-171/20	Slovak Language for Foreign Students (1).....	95
85. 1-MXX-172/20	Slovak Language for Foreign Students (2).....	96
86. 1-MXX-271/20	Slovak Language for Foreign Students (3).....	97
87. 1-MXX-272/20	Slovak Language for Foreign Students (4).....	98
88. 1-INF-175/00	Social Aspects of Informatics.....	99
89. 1-MXX-115/15	Sports in Nature (1).....	100
90. 1-MXX-215/15	Sports in Nature (2).....	101
91. 1-MXX-216/18	Sports in Nature (3).....	102
92. 1-MXX-217/18	Sports in Nature (4).....	103
93. 1-MXX-133/18	Supplementary English Course (1).....	104
94. 1-MXX-134/18	Supplementary English Course (2).....	105
95. 1-BMF-167/15	Text and Data Sets Processing.....	106
96. 1-BMF-351/15	Thermodynamics and Statistical Physics.....	107

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI-LF.AÚ/1-BMF-120/00		Course title: Anatomy (1)			
Educational activities: Type of activities: lecture / laboratory 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: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Lectures: Introduction into anatomy. General anatomy of bones, muscles and joints. The alimentary system. The respiratory system. The urinary system. Male and female genital organs. Heart. Arteries. Veins Practical lessons: Vertebrae, sternum, ribs. Joints of the vertebral column and thorax. Skeleton of the upper limb. Skeleton of the lower limb. Joints of the upper and lower limb. Skull. Test. Muscles of the upper limb. Muscles of the lower limb. Muscles of the head, neck, and back. Muscles of the thorax and abdomen. Test					
Recommended literature: Beňuška, J. a kol.: Anatómia pre medziodborové štúdium I. Bratislava: UK, 1995. 176 s. Skriptá. Mráz, P. a kol.: Anatómia pre medziodborové štúdium II. Bratislava: UK, 2001. 195 s. Skriptá					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 258					
A	B	C	D	E	FX
36,43	29,07	18,6	7,75	8,14	0,0
Lecturers: Mgr. Silvia Mužiková, doc. RNDr. Ladislav Guller, CSc., Mgr. Katarína Bevízová, PhD., MUDr. Daniela Dovalová					
Last change: 02.06.2015					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI-LF.AÚ/1-BMF-155/00		Course title: Anatomy (2)			
Educational activities: Type of activities: lecture / laboratory 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: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Lectures: Lymphatic systém. Spinal cord, spinal nerves. Medulla oblongata, pons. Cerebellum. Mesencephalon. Diencephalon. Telencephalon. Cranial nerves. Autonomic nervous system. Sense organs. . Endocrine system. Skin Practical lessons: The alimentary system. The respiratory system. The urinary system. Male and female genital organs. Test. Heart. Vessels of the thorax, abdomen, head, neck, and limbs. Spinal cord, spinal nerves. Brain. Cranial nerves.					
Recommended literature: Beňuška, J. a kol.: Anatómia pre medziodborové štúdium I. Bratislava: UK, 1995. 176 s. Skriptá. Mráz, P. a kol.: Anatómia pre medziodborové štúdium II. Bratislava: UK, 2001. 195 s. Skriptá					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 207					
A	B	C	D	E	FX
34,78	18,36	15,94	9,18	13,04	8,7
Lecturers: doc. MUDr. Eliška Kubíková, PhD., MPH, doc. RNDr. Ladislav Guller, 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.KJFB/1-UFY-241/10		Course title: Atomic and Nuclear Physics			
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: 5					
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: 132					
A	B	C	D	E	FX
25,0	12,88	19,7	15,91	21,97	4,55
Lecturers: RNDr. Radoslav Böhm, PhD., Ing. Jakub Kaizer, 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.KJFB/1-BMF-910/15		Course title: BSc Project			
Educational activities: Type of activities: other Number of hours: per week: 3 per level/semester: 42 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: 51					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Iveta Waczulíková, PhD.					
Last change: 02.06.2015					
Approved by:					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KJFB/1-BMF-991/15	Course title: BSc Thesis Defense
Number of credits: 10	
Educational level: I.	
State exam syllabus:	
Last change: 02.06.2015	
Approved by:	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/2-FOL-116/15		Course title: Basic Electronics			
Educational activities: Type of activities: lecture / laboratory practicals Number of hours: per week: 3 / 3 per level/semester: 42 / 42 Form of the course: on-site learning					
Number of credits: 7					
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: 92					
A	B	C	D	E	FX
96,74	0,0	3,26	0,0	0,0	0,0
Lecturers: doc. RNDr. František Kundracik, CSc., RNDr. Matej Klas, PhD., RNDr. Juraj Országh, 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-LF.ÚLChB/1-BMF-255/00		Course title: Basics of Biochemistry			
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: 4.					
Educational level: I.					
Prerequisites: FMFI-LF.ÚLChB/1-BMF-220/00 - Basics of Chemistry of Living Systems					
Course requirements:					
Learning outcomes:					
Class syllabus: Biologic oxidations in living systems. Synthesis of ATP in cells, citrate cycle. Metabolism of carbohydrates. Metabolism of lipids and amino acids. Metabolism of nucleotides. General principles of regulations. Hormones. Basis of clinical biochemistry.					
Recommended literature: Kolektív: Lekárska biochémia I. Bratislava: UK, 2001, 242 s. Kolektív: Lekárska biochémia: Seminárna a praktická časť. Bratislava: UK, 2004, 168 s. Turecký, L.: Lekárska biochémia II. Bratislava: Asklepios, 1997, 175 s.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 170					
A	B	C	D	E	FX
20,59	13,53	17,06	18,24	22,35	8,24
Lecturers: doc. RNDr. Eva Uhlíková, CSc., doc. RNDr. Monika Ďurfinová, PhD., RNDr. Milada Laššánová, CSc., doc. Ing. Mária Chomová, 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-LF.ÚLChB/1-BMF-220/00		Course title: Basics of Chemistry of Living 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:					
Course requirements:					
Learning outcomes:					
Class syllabus: Atoms, classification of elements, formation of molecules. Relation between the structure and properties of compounds. Non-binding interactions between molecules. Biogenic elements. Principles of physico-chemical methods. Dispersive systems. Solutions. Chemical equilibrium in solutions of acids and bases. Characteristics of redox processes. Energetics and kinetics of chemical processes. Structure and properties of organic compounds. Carbohydrates. Biochemically important organic compounds of sulphur and nitrogen. Saccharides. Lipids and their importance in nutrition. Arachidonic acid. Terpens. Steroids. Alcaloids. Amino acids. Peptides. Proteins. Polynucleotides and Nucleic acids. Nucleoproteins. Enzymology. Vitamins. Enzymes, importance of enzymology, multienzyme systems.					
Recommended literature: Bergendi, L.- Čársky, J.- Pecháň, I.: Základy biologickej chémie a enzymológie. Bratislava, Palaestra, 1997, 385 s. Ďuračková, Z. a kol.: Lekárska chémia a biochémia, Bratislava: UK, 2001, 183 s. Skriptá. Hrnčiarová, M. a kol.: Lekárska chémia - laboratórna časť. Bratislava: UK, 2005, 211s. Skriptá. Muchová, J. a kol.: Lekárska chémia a toxikológia pre nelekárske študijné odbory. UK, 2004., 152s. Skriptá					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 185					
A	B	C	D	E	FX
8,11	9,73	23,24	17,84	32,97	8,11

Lecturers: RNDr. Lucia Andrežálová, PhD., doc. PharmDr. Vladimír Jakuš, CSc., doc. Ing. Ingrid Žitňanová, PhD., doc. RNDr. Jana Muchová, PhD., prof. Ing. Zdeňka Ďuračková, 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.KMANM+KJFB/1-BMF-110/15		Course title: Basics of Mathematics (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: 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: 150					
A	B	C	D	E	FX
7,33	10,67	14,0	14,67	22,0	31,33
Lecturers: doc. RNDr. Eugen Vizsus, CSc., RNDr. Radoslav Böhm, PhD., RNDr. Michal Demetrian, 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.KMANM+KJFB/1-BMF-150/15		Course title: Basics of Mathematics (2)			
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: 8					
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: 113					
A	B	C	D	E	FX
7,96	7,96	17,7	19,47	28,32	18,58
Lecturers: doc. RNDr. Eugen Vizsus, CSc., RNDr. Radoslav Böhm, 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.KMANM/1-BMF-226/15		Course title: Basics of Mathematics (3)			
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: 3.					
Educational level: I.					
Prerequisites: FMFI.KMANM+KJFB/1-BMF-110/15 - Basics of Mathematics (1),FMFI.KMANM+KJFB/1-BMF-150/15 - Basics of Mathematics (2)					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 124					
A	B	C	D	E	FX
8,87	11,29	12,1	16,13	29,03	22,58
Lecturers: RNDr. Michal Demetrian, PhD., doc. RNDr. Eugen Viszus, CSc.					
Last change: 15.08.2019					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KMANM/1-BMF-261/15		Course title: Basics of Mathematics (4)			
Educational activities: Type of activities: lecture / practicals / independent work Number of hours: per week: 3 / 2 per level/semester: 42 / 28 / 20s Form of the course: on-site learning					
Number of credits: 5					
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: 106					
A	B	C	D	E	FX
14,15	16,98	12,26	16,98	26,42	13,21
Lecturers: RNDr. Michal Demetrian, PhD., doc. RNDr. Eugen Viszus, CSc.					
Last change: 12.09.2018					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KMANM/1-MAT-510/00		Course title: Biomathematics (1)			
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: 5.					
Educational level: I.					
Prerequisites: FMFI.KMANM/1-MAT-250/14 - Mathematical Analysis (4) and leboFMFI.KMANM/1-MMN-250/17 - Mathematical Analysis (4) and leboFMFI.KMANM/1-BMF-261/15 - Basics of Mathematics (4)					
Course requirements: Scale of assessment (preliminary/final): 40/60					
Learning outcomes:					
Class syllabus: Selection dynamics and population genetics: Hardy-Weinberger law for two and more alleles, the selection equation, the mutation selection equation, the selection recombination equation. Models of population ecology: logistic equation, Lotka-Volterra equations for predator-prey systems with and without intraspecific competition.					
Recommended literature: J. Hofbauer, K. Sigmund: The Theory of Evolution and Dynamical systems, Cambridge University Press, Cambridge 1988.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 140					
A	B	C	D	E	FX
51,43	17,86	18,57	7,86	3,57	0,71
Lecturers: prof. RNDr. Jaroslav Jaroš, 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.KMANM/1-MAT-515/00		Course title: Biomathematics (2)			
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: FMFI.KMANM/1-MAT-510/00 - Biomathematics (1)					
Course requirements:					
Learning outcomes:					
Class syllabus: Models of population ecology: the equilibria and their stability, Lotka-Volterra equations for more than two populations. Game dynamics: evolutionary stable strategies, evolution of phenotypes, equations for asymmetric games.					
Recommended literature: J. Hofbauer, K. Sigmund: The Theory of Evolution and Dynamical systems, Cambridge University Press, Cambridge 1988.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 62					
A	B	C	D	E	FX
41,94	16,13	24,19	14,52	1,61	1,61
Lecturers: prof. RNDr. Jaroslav Jaroš, 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-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., doc. PhDr. Ján Rybár, 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.KJFB/1-BMF-961/15	Course title: Chemical and Biological Basics of Medicine
Number of credits: 2	
Educational level: I.	
State exam syllabus:	
Last change: 29.05.2017	
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: FMFL.KAFZM/1-BMF-181/15		Course title: Complementary Classes in Mechanics			
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: 67					
A	B	C	D	E	FX
73,13	11,94	10,45	1,49	2,99	0,0
Lecturers: RNDr. Milan Zvarík, 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.KJFB/1-BMF-521/15		Course title: Computer Modelling			
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: 3.					
Educational level: I.					
Prerequisites: FMFI.KMANM+KJFB/1-BMF-110/15 - Basics of Mathematics (1),FMFI.KMANM+KJFB/1-BMF-150/15 - Basics of Mathematics (2)					
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
97,06	2,94	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Ján Urban, DrSc., RNDr. Ing. Milan Melicherčík, 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.KEF/1-FYZ-211/17		Course title: Electromagnetism and Optics			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 6 / 4 per level/semester: 84 / 56 Form of the course: on-site learning					
Number of credits: 11					
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: 206					
A	B	C	D	E	FX
19,9	11,65	17,48	21,36	21,36	8,25
Lecturers: prof. RNDr. Peter Markoš, DrSc., doc. RNDr. František Kundracik, CSc., Mgr. Róbert Astaloš, PhD.					
Last change:					
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: 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: 119					
A	B	C	D	E	FX
73,11	15,13	4,2	1,68	0,0	5,88
Lecturers: 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: 5498					
A	B	C	D	E	FX
30,25	23,85	18,66	12,7	7,57	6,98
Lecturers: Mgr. Eva Foltánová, Mgr. Ing. Jana Kočvarová, Mgr. Ľubomíra Kožehubová, Mgr. Alexandra Maďarová, PhDr. Alena Zemanová, 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: 1553					
A	B	C	D	E	FX
22,22	20,48	24,47	15,58	10,62	6,63
Lecturers: 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. 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-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: 3045					
A	B	C	D	E	FX
28,34	28,37	20,72	11,07	5,68	5,81
Lecturers: Mgr. Ing. Jana Kočvarová, Mgr. Alexandra Maďarová, PhDr. Alena Zemanová, 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: FMFL.KJFB/1-FYZ-401/15		Course title: Fields of Physical Research			
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: 2					
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: 163					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: prof. RNDr. Jozef Masarik, DrSc.					
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-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: 261					
A	B	C	D	E	FX
38,31	25,67	19,92	10,34	2,68	3,07
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-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: FMFL.KJFB/1-BMF-335/15		Course title: Fundamentals of Biomedical Physics and Diagnosis			
Educational activities: Type of activities: lecture / seminar 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:					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 50					
A	B	C	D	E	FX
48,0	30,0	16,0	4,0	2,0	0,0
Lecturers: RNDr. Marcela Morvová, PhD.					
Last change: 07.10.2016					
Approved by:					

STATE EXAM DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFL.KJFB/1-BMF-951/15	Course title: Fundamentals of Physics
Number of credits: 2	
Educational level: I.	
State exam syllabus:	
Last change: 29.05.2017	
Approved by:	

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KEF/1-FYZ-212/15		Course title: Fundamentals of Programming			
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: 182					
A	B	C	D	E	FX
71,98	4,4	7,69	7,69	8,24	0,0
Lecturers: doc. RNDr. František Kundracik, CSc., RNDr. Peter Papp, 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.KJFB/1-OZE-610/15		Course title: Fundamentals of Radiation Physics and Protection			
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: 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: 71					
A	B	C	D	E	FX
66,2	8,45	12,68	8,45	4,23	0,0
Lecturers: doc. RNDr. Karol Holý, CSc., doc. RNDr. Monika Müllerová, 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					
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: 86					
A	B	C	D	E	FX
39,53	25,58	12,79	12,79	3,49	5,81
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: FMFL.KAG/1-INF-240/15		Course title: Graphical Systems, Visualization, Multimedia			
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: 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: 1096					
A	B	C	D	E	FX
24,54	26,64	21,99	11,41	7,57	7,85
Lecturers: doc. RNDr. Andrej Ferko, 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-LF.ÚHE/1-BMF-160/00		Course title: Histology (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 1 / 2 per level/semester: 14 / 28 Form of the course: on-site learning					
Number of credits: 3					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Introduction to histology. Technique for the study of cells, tissues and organs. Eukaryotic cell: plasma membrane and cytoplasmatic organelles. Cytology (light and electron microscopy). Epithelial tissues. Connective tissues: cells, fibres, and amorphous intercellular substances. Connective tissue: cartilages. Blood and hematopoetic tissue. Muscle tissue. Nervous tissue. Vascular - circulatory system.					
Recommended literature: J. Foltinová: Histológia pre poslucháčov biomedicínskej fyziky, Publisher: Univerzity Komenského, 2003, 1-240 LP Gartner, JL Hiatt: Color Textbook of Histology, Publisher: WB Saunders Comp. Philadelphia, London, New York, 2001, 1-577					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 213					
A	B	C	D	E	FX
14,55	19,25	26,29	23,0	16,9	0,0
Lecturers: prof. MUDr. Štefan Polák, CSc., Mgr. Michaela Vrabcová, PhD., MUDr. Mária Lorencová, PhD., MUDr. Vanda Rísová, 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-LF.ÚHE/1-BMF-225/00		Course title: Histology (2)			
Educational activities: Type of activities: lecture / laboratory practicals Number of hours: per week: 1 / 2 per level/semester: 14 / 28 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester: 3.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Microscopic anatomy of: - lymphatic system; - glands with endocrine secretion; - respiratory system; - digestive system; - uropoetic system; - male and female reproductive organs; - skin and skin adnex; - organs of central and peripheral nervous system; - sensuous organs. Principles of morphometry in diagnostics. Human embryology, blastogenesis. Human embryology, organogenesis					
Recommended literature: J. Foltinová: Histológia pre poslucháčov biomedicínskej fyziky, Publisher: Univerzita Komenského, 2003, 1-240 LP Gartner, JL Hiatt: Color Textbook of Histology, Publisher: WB Saunders Comp. Philadelphia, London, New York, 2001, 1-577					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 177					
A	B	C	D	E	FX
37,29	22,03	17,51	10,73	10,17	2,26
Lecturers: prof. MUDr. Štefan Polák, CSc., Mgr. Michaela Vrabcová, PhD., MUDr. Mária Lorencová, PhD., MUDr. Vanda Rísová, 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-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.KJFB/1-BMF-311/15		Course title: Introduction to Biophysics			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 2 per level/semester: 56 / 28 Form of the course: on-site learning					
Number of credits: 7					
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: 29					
A	B	C	D	E	FX
62,07	24,14	0,0	0,0	3,45	10,34
Lecturers: prof. RNDr. Tibor Hianik, DrSc., Mgr. Zuzana Garaiová, PhD., Mgr. Veronika Šubjaková, 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-FM.KMn/1-MMN-130/00	Course title: Introduction to Management I
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.	
Prerequisites:	
Course requirements: Essay (max. 10%), presentation of the essay (max. 10%), midterm test (max. 15%), active participation in solving case studies, final test (max. 25%), oral exam (max. 40%). Scale of assessment (preliminary/final): 60/40	
Learning outcomes: After completing the course the student obtains a comprehensive knowledge of selected areas of management theory and become familiar with the basic procedures for identifying and solving problems in management practice. Course content also focuses on developing managerial skills and abilities of listeners. Students through an individual elaboration of an essay, its presentation followed by discussion and case studies enhance the correct use of terminology of management as a science discipline, expanding their knowledge and improving the skills necessary for further study and management practice.	
Class syllabus: 1. Managers and management – management as a process, science, and profession. 2. Management theory development. 3. Organizational culture. 4. Organizational environment. 5. Management in a global environment. 6. Social responsibility and managerial ethics. 7. Managerial decision-making. 8. Foundations of planning. 9. Strategic management. 10. Forecasting.	
Recommended literature: [1] WOJČÁK, E. - RUDY, J. - BAJZÍKOVÁ, Ľ. a kol. Manažment, UK Bratislava, 2017. [2] PIŠKANIN A. – RUDY J. a kol.: Manažment klasické teórie a moderné trendy, UK Bratislava, 2010. [3] SEDLÁK M.: Manažment. Iura Edition, Bratislava 2009.	

- [4] ROBBINS, P. R. - COULTER, M.: Management, Harlow : Pearson education limited, 2018, 14th edition. p 751. ISBN 978-1-292-21583-9
- [5] ROBBINS, P. R. - COULTER, M. with contributions by MARTOCCHIO, J. J., KONG, L. K.: Management, Harlow : Pearson education limited, 2016, 13th edition. p. 717 . ISBN 978-1-292-09020-7
- [6] Journal of Human Resource Management. ISSN 2453 – 7683-[online] www.jhrm.eu

Languages necessary to complete the course:

Slovak and English language

Notes:

Past grade distribution

Total number of evaluated students: 603

A	B	C	D	E	FX
22,89	20,9	18,74	13,76	19,24	4,48

Lecturers: Mgr. Michaela Poláková, PhD., PhDr. Lukáš Copuš, PhD., doc. Mgr. Jana Fratričová, PhD., Mgr. Juliet Horváthová Suleimanová, PhD., Mgr. Monika Vojteková

Last change: 07.05.2019

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB/1-BMF-331/18		Course title: Introductory Biostatistics			
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: 4.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KJFB/1-BMF-331/15 and FMFI.KJFB/1-BMF-331/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 49					
A	B	C	D	E	FX
44,9	36,73	12,24	4,08	2,04	0,0
Lecturers: doc. RNDr. Iveta Waczulíková, PhD.					
Last change:					
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: FMFLKEF/1-OZE-271/10		Course title: Laser Technique			
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: 24					
A	B	C	D	E	FX
79,17	12,5	4,17	4,17	0,0	0,0
Lecturers: RNDr. Pavel Vojtek, 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.KJFB+KTF/1-FYZ-116/17		Course title: Mathematical Methods in Physics (1)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 2 per level/semester: 56 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 1.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KJFB/1-FYZ-116/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 717					
A	B	C	D	E	FX
30,96	14,64	17,43	14,37	16,46	6,14
Lecturers: RNDr. Radoslav Böhm, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KJFB+KTF/1-FYZ-117/17		Course title: Mathematical Methods in Physics (2)			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 2 per level/semester: 56 / 28 Form of the course: on-site learning					
Number of credits: 6					
Recommended semester: 2.					
Educational level: I.					
Prerequisites:					
Antirequisites: FMFI.KJFB/1-FYZ-117/15					
Course requirements:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 258					
A	B	C	D	E	FX
27,52	13,57	18,99	19,77	17,05	3,1
Lecturers: RNDr. Radoslav Böhm, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/1-BMF-113/16		Course title: Mechanic			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 2 per level/semester: 56 / 28 Form of the course: on-site learning					
Number of credits: 7					
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: 543					
A	B	C	D	E	FX
20,81	14,73	13,08	8,84	19,34	23,2
Lecturers: RNDr. Radoslav Böhm, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI-LF.ÚLBG/1-BMF-125/00		Course title: Medical Biology			
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: 1.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: The cell as a basic morphological, functional and reproductive unit: morphology, cell surfaces, nucleus, nucleolus, mitochondria, endoplasmic reticulum, ribosomes, Golgi apparatus, cytoskeleton. Intercellular spaces and communication. Transport of molecules - glykokalyx, membrane receptors. The cell cycle: amitosis, mitosis (mitotic apparatus, endomitosis). Viruses: genom, reproduction, mutations and recombinations, oncogene viruses. Prokaryotic cells - morphology, structure, genome. Parasexual process in bacteria. Differences between prokaryotes and eukaryotes. Protista. Molecular biology: structure of DNA and RNA, replication of DNA, transcription, translation, genetic code. Genes of prokaryotic and eukaryotic cells, insertion sequences and transposons, resistance to antibiotics (R plasmids, DNA recombination, vectors). Analysis of DNA and utilization of knowledge of molecular biology in medicine. Tissue cultivation.					
Recommended literature: Solomon, P.E. - Berg L.R. - Martin, D.W.: Biology. 5th ed. Philadelphia: W.B. Saunders, 1998. 1195 p. ISBN 0030222990 Thompson, .V. - McInnes, P.R. - Willard, H.P.: Thompson and Thompson Genetics in Medicine. 5th ed. Philadelphia: W.B. Saunders, 1991. 512 p. ISBN 0-7216-2817-6.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 257					
A	B	C	D	E	FX
50,97	10,89	16,34	9,73	11,28	0,78
Lecturers: prof. RNDr. Vanda Repiská, PhD., doc. MUDr. Daniel Böhmer, 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-LF.IÚ/1-BMF-330/15		Course title: Medical Immunology			
Educational activities: Type of activities: lecture Number of hours: per week: 1 per level/semester: 14 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: 77					
A	B	C	D	E	FX
23,38	19,48	14,29	6,49	25,97	10,39
Lecturers: doc. RNDr. Vladimíra Ďurmanová, PhD., doc. Mgr. Ivana Shawkatová, PhD., prof. MUDr. Milan Buc, DrSc., doc. MUDr. Mária Bucová, CSc., MUDr. Zuzana Párnická, PhD., MUDr. Juraj Javor, PhD.					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJFB/1-BMF-531/15		Course title: Medical Instruments			
Educational activities: Type of activities: lecture / excursion 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: 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: 48					
A	B	C	D	E	FX
97,92	2,08	0,0	0,0	0,0	0,0
Lecturers: doc. RNDr. Martin Kopáni, PhD., doc. RNDr. Iveta Waczulíková, PhD., doc. RNDr. Pavol Vitovič, 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-LF.MÚ/1-BMF-325/15		Course title: Medical Microbiology			
Educational activities: Type of activities: lecture Number of hours: per week: 1 per level/semester: 14 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: 76					
A	B	C	D	E	FX
28,95	26,32	18,42	9,21	6,58	10,53
Lecturers: doc. RNDr. Livia Slobodníková, CSc.					
Last change: 03.03.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI-LF.ÚCJ/1-BMF-130/00		Course title: Medical Terminology in Latin			
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 1 / 2 per level/semester: 14 / 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: Úvod do štúdia latinského jazyka. I. latinská deklinácia - substantíva feminína, adjektíva. II. latinská deklinácia, substantíva maskulína a feminína, adjektíva. III. deklinácia, konzonantické kmene, neutrá. III. deklinácia vokalicke kmene. IV. deklinácia u-kmene. V. deklinácia e-kmene. Grécke substantíva III. deklinácie. Adjektíva III. deklinácie. Stupňovanie adjektív. Latinské základné a radové číslovky. Sloveso. Latinské mená farmaceutických prípravkov. Latinské prefixy. Grécke , latinské sufixy, kompozitá, hybridné slová. Proces slovotvorby a kompozície.					
Recommended literature: Bujalková, M. – Šimon, F.: Terminologia Medica Latina, Osveta, Martin, 2015, 202 s. Ivanová, A.: Cursus Latinus Medicinalis (Úvod do štúdia latinskej terminológie), Bratislava UK, 2006, 265 s. Kábrt, J.: Lexicon Medicum, Praha, 1995. Kábrt, J., Valach, V.: Stručný lekársky slovník, Vydavateľstvo Osveta, Martin, 1965, 1968, 1999.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 253					
A	B	C	D	E	FX
21,34	30,43	19,37	16,21	12,25	0,4
Lecturers: PhDr. Tomáš Hamar, PhD., Ing. Janka Bábelová, PhD., Mgr. Radoslav Ďurajka, PhD., Mgr. Ivan Lábaj, PhD., PhDr. Beata Ricziová, Mgr. Angela Škovierová, PhD., Mgr. Eva Taranová, PhD., Mgr. Oľga Vaneková, PhD.					
Last change: 30.09.2016					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: PriF-FMFI.KI/2-AIN-501/00		Course title: Methods in Bioinformatics			
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:					
Antirequisites: FMFI.KAI+KI/1-BIN-301/15					
Course requirements: homework assignments, group project, written exam Scale of assessment (preliminary/final): 50/50					
Learning outcomes: Students will be familiar with to basic problems and methods in bioinformatics; they will be able to choose an appropriate method for a given biological problem and to interpret its results.					
Class syllabus: Basic concepts from molecular biology, algorithms and machine learning. Sequencing and assembling genomes. Gene finding. Sequence alignment. Evolutionary models and phylogenetic trees. Comparative genomics. RNA structure. Motif finding and gene expression analysis. Protein structure and function. Selected current topics. Students of computer science programs will focus on computer science methods and mathematical modeling of covered problems. Life science students will focus on understanding and correct application of these methods on real data.					
Recommended literature: Biological sequence analysis : Probabilistic models of proteins and nucleic acids / Richard Durbin ... [et al.]. Cambridge : Cambridge University Press, 1998 Understanding bioinformatics / Marketa Zvelebil, Jeremy O. Baum. New York : Garland Science, 2008					
Languages necessary to complete the course: Slovak, English					
Notes:					
Past grade distribution Total number of evaluated students: 83					
A	B	C	D	E	FX
45,78	22,89	16,87	9,64	4,82	0,0

Lecturers: doc. Mgr. Bronislava Brejová, PhD., doc. Mgr. Tomáš Vinař, PhD., Mgr. Askar Gafurov
Last change: 14.09.2020
Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI-LF.ÚLBG/1-BMF-315/00	Course title: Molecular Biology
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: Chromosomal inheritance: structure of chromosomes, nomenclature, identification techniques. Meiosis. Differences between spermiogenesis and oogenesis. Types of genetical diseases: single-gene inherited diseases (autosomal dominant, codominant and recessive, X-linked dominant and recessive), gene interactions. Chromosomal aberrations, mechanisms of origin, frequency. Aberrations of gonosomes X and Y. Gene-dose effect and its compensation. Mozaicism. Organization of human genome: types of DNA, structure of gene, homeoboxes and homeodomains, DNA - histone complex. Oncogenesis - molecular basics of cancerogenesis - oncogenes, their function in organism, c-onc, v-onc. Mutation of oncogens, relation to malignancy. Tumor suppressor genes - their function and character of their mutations. Theory of multiple hits. Syndromes of increased spontaneous instability of chromosomes. Malignant diseases with typical rearrangement of chromosomes. Multifactorial and polygene inheritance. Normal variability. Pathological traits s multifactoriál type of inheritance. Predisposition. Possibilities of prenatal diagnostics. Mutagenesis, types and basic characteristics of mutagens. Frequency of mutations. Teratogenesis - basic characteristics, mechanisms of origin, possibilities of differential diagnostics. Appearance of congenital malformations. Prenatal genetic diagnostics and prognostics.	
Recommended literature: Solomon, P.E. - Berg L.R. - Martin, D.W.: Biology. 5th ed. Philadelphia: W.B. Saunders, 1998. 1195 p. ISBN 0030222990 Thompson, .V. - McInnes, P.R. - Willard, H.P.: Thompson and Thompson Genetics in Medicine. 5th ed. Philadelphia: W.B. Saunders, 1991. 512 p. ISBN 0-7216-2817-6.	
Languages necessary to complete the course:	
Notes:	

Past grade distribution					
Total number of evaluated students: 144					
A	B	C	D	E	FX
60,42	15,97	12,5	6,25	4,17	0,69
Lecturers: prof. RNDr. Vanda Repiská, PhD., doc. MUDr. Daniel Böhmer, 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.KAFZM/1-OZE-342/15		Course title: Physical Analytic Methods			
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: 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: 11					
A	B	C	D	E	FX
45,45	45,45	9,09	0,0	0,0	0,0
Lecturers: doc. RNDr. Karol Hensel, PhD., doc. RNDr. Mário Janda, 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.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: 5337					
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: 4537					
A	B	C	D	E	FX
97,07	1,72	0,04	0,04	0,04	1,08
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: 2425					
A	B	C	D	E	FX
98,72	0,16	0,08	0,04	0,0	0,99
Lecturers: Mgr. Tomáš Kuchár, PhD., Mgr. Ladislav Mókus, 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-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. 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: 1545					
A	B	C	D	E	FX
99,03	0,26	0,13	0,0	0,0	0,58
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: FMFI-LF.FyÚ/1-BMF-260/00		Course title: Physiology (1)			
Educational activities: Type of activities: lecture / laboratory 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: Lectures: Physiology of blood. Physiology of breathing. Physiology of excitable tissues. Physiology of special senses. Physiology of cardiovascular system. Practicals classes: Determination of haematocrit value and blood groups. Blood corpuscles count. Breathing models. Lung function examination. Intrapleural pressure. Expired air analyses. Regulation of breathing. Observation of frog's heart activity. ECG. Capillarioscopy. Muscle and nerve-muscle preparation. Skeletal muscle characteristics. Resting and action potentials. Muscle work and fatigue.					
Recommended literature: Javorka, K. a kol.: Lekárska fyziológia. Učebnica pre Lekárske fakulty. Martin: Osveta, 2001, 679 s. Hájek, J. a kol.: Príručka praktickej fyziológie. I., II. Bratislava: UK, 1995, 97 + 96 s. Béder, I.: Lymfatický systém človeka. Bratislava: UK, 1998, 44 s. Béder. I. a kol.: Testové otázky z fyziológie. Bratislava: Asklepios, 2003.173 s. ISBN 80-7167-028-6.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 174					
A	B	C	D	E	FX
43,68	24,71	22,99	5,75	0,57	2,3
Lecturers: MUDr. Anna Pivovarčiová, PhD., doc. MUDr. Katarína Babinská, PhD., prof. MUDr. Daniela Ostatníková, PhD., doc. MUDr. Jana Radošinská, PhD., MUDr. Mária Vidošovičová					
Last change: 02.06.2015					

Approved by:

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI-LF.FyÚ/1-BMF-320/00		Course title: Physiology (2)			
Educational activities: Type of activities: lecture / laboratory 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.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Lecrures: Physiology of digestive. Metabolism. Kidneys. Thermoregulation. Central nervous system. Endocrinology. Practicals classes: Eye models. Vision acuity. Perimetry. Detection of colour blindness. Otoscopy. Audiometry. Tests with tuning forks. Examination ofolfactory an taste sensations and cutaneous sensitivity. Effect of food composition on salivary secretion. Transport of food through oesophagus. Absorption of glucose in small intestine. Determination of basal and work metabolism. Recommended dietary allowances. Examination of reflexes. Reaction time measurements. Measurements of Achilles tendon reflex. Memory tests. Seminars: Physiology of digestion. Metabolism. Kidneys. Central nervous system. Endocrinology.					
Recommended literature: Javorka, K. a kol.: Lekárska fyziológia. Učebnica pre Lekárske fakulty. Martin: Osveta, 2001, 679 s. Hájek, J. a kol.: Príručka praktickej fyziológie. I., II. Bratislava: UK, 1995, 97 + 96 s. Béder, I.: Lymfatický systém človeka. Bratislava: UK, 1998, 44 s. Béder. I. a kol.: Testové otázky z fyziológie. Bratislava: Asklepios, 2003.173 s. ISBN 80-7167-028-6.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 156					
A	B	C	D	E	FX
20,51	15,38	23,08	14,74	18,59	7,69

Lecturers: prof. MUDr. Daniela Ostatníková, PhD., prof. MUDr. Boris Mravec, PhD., doc. MUDr. Katarína Babinská, PhD., MUDr. Rastislav Važan, PhD., doc. MUDr. Jana Radošínská, 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.KEF/1-BMF-211/16		Course title: Practical I			
Educational activities: Type of activities: laboratory practicals Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 4					
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: 61					
A	B	C	D	E	FX
90,16	8,2	1,64	0,0	0,0	0,0
Lecturers: prof. RNDr. Melánia Babincová, DrSc., RNDr. Milan Zvarík, PhD.					
Last change: 10.02.2020					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KEF/1-OZE-212/15		Course title: Practical II			
Educational activities: Type of activities: laboratory practicals 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:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 184					
A	B	C	D	E	FX
42,93	36,96	16,85	2,17	1,09	0,0
Lecturers: doc. RNDr. Tomáš Roch, RNDr. Ján Greguš, 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.KJFB+KEF/1-OZE-311/15		Course title: Practical III			
Educational activities: Type of activities: laboratory practicals Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 4					
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: 33					
A	B	C	D	E	FX
63,64	18,18	6,06	0,0	0,0	12,12
Lecturers: doc. RNDr. Ivan Sýkora, PhD., RNDr. Ján Greguš, PhD., RNDr. Miroslav Ješkovský, 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.KJFB/1-FYZ-360/00		Course title: Practical IV (Atomic and Nuclear Physics)			
Educational activities: Type of activities: laboratory practicals Number of hours: per week: 3 per level/semester: 42 Form of the course: on-site learning					
Number of credits: 4					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Practical exercises consist of the Laboratory work in Atom Physics (The Verification of the Franck - Hertz Experiment, The Verification of the Stefan - Boltzmann Experiment, Measurement of the flying range Am241 alpha particles in Air,), the Laboratory work in Nuclear Physics (Statistical character of the nuclear changes, Measurement of gamma rays Energy, The Verification of the Compton scattering) and the Laboratory work in Applied Nuclear Physics (Measurement of the radioactivity in Air).					
Recommended literature: Florek.: Fyzikálne praktikum IV. Textbook MFF UK 1988. Manual to practical exercises on web URL - http://www.dnp.fmph.uniba.sk/~kollar/navodnik.htm .					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 220					
A	B	C	D	E	FX
87,73	10,91	0,45	0,0	0,91	0,0
Lecturers: RNDr. Miroslav Jeřkovský, 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.KJFB/1-OZE-372/10		Course title: Practicum in Radiometry and Spectrometry			
Educational activities: Type of activities: laboratory practicals 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:					
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: RNDr. Alexander Šivo, PhD., doc. RNDr. Ivan Sýkora, PhD., doc. RNDr. Monika Müllerová, 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.KAMŠ/1-BMF-227/15		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: 4					
Recommended semester: 3.					
Educational level: I.					
Prerequisites: FMFI.KMANM+KJFB/1-BMF-110/15 - Basics of Mathematics (1),FMFI.KMANM+KJFB/1-BMF-150/15 - Basics of Mathematics (2)					
Course requirements: Continuous assessment: exam, activity in exercises Exam: written Approximate grading scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 30/70					
Learning outcomes: After completing the course students will be able to calculate the probability of random events, deal with discrete and continuous random variables, perform basic descriptive statistics to assess the basic parametric statistical tests.					
Class syllabus: Fundamentals of probability, probability distributions, random samples, introduction to hypothesis testing, one-sample t test, two-sample t test, simple linear regression, goodness of fit test.					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 110					
A	B	C	D	E	FX
28,18	11,82	16,36	15,45	24,55	3,64
Lecturers: doc. Mgr. Pavol Bokes, PhD., Mgr. Iryna Zabaikina					
Last change: 19.10.2016					
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: FMFL.KJFB/1-BMF-310/00		Course title: Quantum Mechanics			
Educational activities: Type of activities: lecture / practicals Number of hours: per week: 4 / 2 per level/semester: 56 / 28 Form of the course: on-site learning					
Number of credits: 7					
Recommended semester: 5.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: 1. Experimental starting points of quantum theory. 2. Photoelectric effect and black body radiation. 3. Introduction of wave mechanics. 4. Schrodinger equation and properties of its solutions. 5. Applications on hydrogen atom and other simple exactly solvable systems. 6. Angular momentum and spin. 8. Approximative methods of quantum mechanics. 9. Perturbation and variational methods. 10. Quantum tunneling and possible applications of quantum mechanics in chemistry and biology. 11. Epistemological questions of quantum mechanics. 12. Relativistic quantum theory.					
Recommended literature: L. Schiff.: Quantum Mechanics, McGraw Hill, 1985. A. Davydov, Quantum Mechanics in Biology, Kluwer, 1990.					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 150					
A	B	C	D	E	FX
46,67	30,67	16,67	3,33	0,67	2,0
Lecturers: prof. RNDr. Peter Babinec, 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.KJFB/1-OZE-244/15		Course title: Radiometric Measurements			
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: 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: 7					
A	B	C	D	E	FX
14,29	14,29	14,29	28,57	28,57	0,0
Lecturers: doc. RNDr. Ivan Sýkora, 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.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: Viktoria Mirsalova					
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: Viktoria Mirsalova					
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: Viktoria Mirsalova					
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: Viktoria Mirsalova					
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: 34

A	B	C	D	E	FX
52,94	17,65	2,94	8,82	8,82	8,82

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.KJFB/1-BMF-930/00		Course title: Seminar in BSc Project			
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: 2					
Recommended semester: 6.					
Educational level: I.					
Prerequisites:					
Course requirements:					
Learning outcomes:					
Class syllabus: Presentation of information from literature and suggestion of topics for the BSC thesis. Presentation and discussion of techniques and methods (experimental and theoretical) to be used in the thesis. Presentation of results with statistics, discussion.					
Recommended literature: According to the BSc thesis					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 145					
A	B	C	D	E	FX
94,48	2,76	0,0	0,0	0,0	2,76
Lecturers: doc. RNDr. Iveta Waczulíková, 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-171/20		Course title: Slovak Language for Foreign Students (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:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 18					
A	B	C	D	E	FX
50,0	0,0	0,0	0,0	0,0	50,0
Lecturers: Mgr. Aneta Barnes					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-172/20		Course title: Slovak Language for Foreign Students (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:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 16					
A	B	C	D	E	FX
81,25	0,0	0,0	0,0	0,0	18,75
Lecturers: Mgr. Aneta Barnes					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-271/20		Course title: Slovak Language for Foreign Students (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:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 2					
A	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Aneta Barnes					
Last change:					
Approved by:					

COURSE DESCRIPTION

University: Comenius University in Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFL.KJP/1-MXX-272/20		Course title: Slovak Language for Foreign Students (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:					
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: Mgr. Aneta Barnes					
Last change:					
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: 1696					
A	B	C	D	E	FX
68,34	9,14	4,6	11,32	3,01	3,6
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: 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, PaedDr. Mikuláš Ortutay, Mgr. Ondrej Podkonický, Mgr. Júlia Raábová, PhD.					
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: 170					
A	B	C	D	E	FX
93,53	0,0	0,0	0,0	0,0	6,47
Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Ondrej Podkonický, Mgr. Júlia Raábová, PhD.					
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. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Ondrej Podkonický, Mgr. Júlia Raábová, PhD.					
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: 11					
A	B	C	D	E	FX
81,82	0,0	0,0	0,0	0,0	18,18
Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Ondrej Podkonický, Mgr. Júlia Raábová, 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.KJFB/1-BMF-167/15		Course title: Text and Data Sets Processing			
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: 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: 67					
A	B	C	D	E	FX
76,12	19,4	4,48	0,0	0,0	0,0
Lecturers: doc. RNDr. Iveta Waczulíková, PhD., RNDr. Milan Zvarík, 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.KJFB/1-BMF-351/15		Course title: Thermodynamics and Statistical Physics			
Educational activities: Type of activities: course Number of hours: per week: 5 per level/semester: 70 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: 69					
A	B	C	D	E	FX
26,09	18,84	24,64	18,84	10,14	1,45
Lecturers: prof. RNDr. Stanislav Tokár, DrSc., RNDr. Radoslav Böhm, PhD., Mgr. Pavol Bartoš, PhD.					
Last change: 02.06.2015					
Approved by:					