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Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-236/15

Algorithms and Data Structures

Educational activities:

Type of activities: course

Number of hours:

per week: 4 per level/semester: 52 Form of the course: on-site learning

Number of credits: 5

Recommended semester: 4.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-241/15 - Programming (3)

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	В	С	D	Е	FX
20,51	15,38	15,38	20,51	20,51	7,69

Lecturers: doc. RNDr. Zuzana Kubincová, PhD.

Last change: 02.06.2015

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course title: Course ID:** FMFI.KAI/2-UXX-102/15 Cognitive Psychology **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level:** II. **Prerequisites: Antirequisites:** FMFI.KAI/2-UXX-102/00 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 27 Α В C D Ε FX 55,56 33,33 0.0 3,7 0.0 7,41

Lecturers: doc. PhDr. Ján Rybár, PhD.

Last change: 02.06.2015

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-107/10 **Computer Systems Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 1. **Educational level: 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: 63 Α В \mathbf{C} D E FX 88,89 0,0 1,59 1,59 4,76 3,17 Lecturers: Mgr. Miroslav Wagner Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-105/15 Computer-aided Science Laboratory **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3.** Educational level: D, 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: 65 Α В \mathbf{C} D E FX 95,38 0,0 1,54 3,08 0,0 0,0Lecturers: doc. RNDr. Peter Demkanin, PhD., PaedDr. Tünde Kiss, PhD.

Last change: 02.06.2015

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:
FMFI.KDMFI/2-UIN-117/10

Course title:
Databases

Educational activities:

Educational activities:
Type of activities: course
Number of hours:

per week: 3 per level/semester: 39 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 5.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: active participation in educational activities (15%), project (45%)

Examination: test

Indicative grading scale: A 88 %, B 81 %, C 74 %, D 67 %, E 60 %

Scale of assessment (preliminary/final): 60/40

Learning outcomes:

The student will understand the basic concepts of the field, will have an overview of database models, will understand the problems that can arise when designing databases, will be able to use the SQL language to communicate with a database system, will be able to create a simple database.

Class syllabus:

- Databases around us. Spreadsheet and databases.
- Database system. Database models.
- Conceptual design of a database.
- Relational data model.
- Introduction to SQL.
- Normalization and denormalization, database design criteria.
- Databases and database software

Recommended literature:

- the teacher's own electronic study materials published on the course website or in the Moodle system
- Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika : Úvod do databáz : 1.2 Vzdelávanie nekvalifikovaných učiteľov informatiky na 2. stupni ZŠ a na SŠ / Zuzana Kubincová ... [et al.]. Bratislava : Štátny pedagogický ústav, 2010
- An introduction to database systems / C. J. Date. Boston: Pearson/Addison-Wesley, 2004

I	Languages	necessarv	to	compl	ete	the	course:
	Janeuaecs	nccessai v	w	COMB	···	ш	course.

Slovak

Notes:

Past grade distribution							
Total number of evaluated students: 56							
A	В	С	D	Е	FX		
41,07	19,64	19,64	10,71	7,14	1,79		
Lecturers: doc. RNDr. Zuzana Kubincová, PhD.							
Last change: 22.06.2022							
Approved by:							

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KDMFI/2-UIN-144/15 Design and Analysis of Algorithms

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Ongoing evaluation: active participation, projects

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:

The student will be acquainted with the methods of creating efficient algorithms and will be able to design and use algorithms for selected problems.

Class syllabus:

304 / 5 000

Výsledky prekladov

- Complexity of algorithms, complexity analysis
- Methods of creating efficient algorithms (divide and conquer, greeds, dynamic programming, methods based on state space search)
- Search for a pattern in the text
- Graph algorithms
- Algorithms for NP difficult problems probabilistic, random

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 8

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 14.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-280/19

Didactics Seminar in Informatics (1)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Interim evaluation: Active participation in lessons + participation in discussions (40%), educational desing of methodology for one topic from informatics for lower secondary school and its presentation (50%), analysis of real lesson of informatics for lower secondary pupils (10%)

Test: -

Indicative rating scale: A 90%, B 80%, C 70%, D 65%, E 60%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Students are able to analyze and evaluate tasks from the point of view of teaching computer science. They will design and implement a lesson focused on a topic in informatics at the lower secondary school with regard to the stages of the cognitive process. They can analyze the lesson in terms of required input knowledge, goals, tasks ordering, methodological procedures used.

Class syllabus:

- Discussions about observations during pedagogical practice.
- Demonstrations of teaching topics verified in practice.
- Analysis of teaching lessons and problematic topics from informatics for lower secondary pupils.

Recommended literature:

- Electronic study materials published on the subject's website or moodle system
- Collection of innovative methodologies for the 2nd degree of university, IT Academy, 2020 (in Slovak)
- Varga, M. et al.: Further education of primary school and secondary school teachers in the subject of informatics, Didactics of Informatics at the University, Bratislava: State Pedagogical Institute, 2011 (in Slovak)

Languages necessary to complete the course:

Notes:

Past grade distribution Total number of evaluated students: 9						
A	В	С	D	Е	FX	
77,78	11,11	0,0	0,0	0,0	11,11	
Lecturers: doc	. RNDr. Ľudmila	Jašková, PhD.		_		
Last change: 20.06.2022						
Approved by:						

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-281/19 Didactics Seminar in Informatics (2) **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 6. **Educational level: 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: 10 Α В \mathbf{C} D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: doc. RNDr. Ľudmila Jašková, PhD. Last change: Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-120/00

Didactics of Informatics (1)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

Educational level: D, II.

Prerequisites:

Course requirements:

Continuous assessment: premium tasks, written assignments, active participation in class, reports, didactic outputs, development and analysis of methodological materials.

Indicative grading scale: A 92 %, B 84 %, C 76 %, D 68 %, E 60 %

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 104

Α	В	С	D	Е	FX
83,65	6,73	2,88	5,77	0,96	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 22.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-219/10

Didactics of Informatics (2)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 5.

Educational level: D, II.

Prerequisites:

Course requirements:

Written assignments, active participation in class, reports, didactic outputs, creation and analysis of methodological materials, study of professional materials.

The results of problems solved, discussed and active participation in seminars are counted towards the final maximum of 100 points a student can earn. Another regular obligation is weekly writing on the topic studied.

Indicative grading scale: A 92 %, B 84 %, C 76 %, D 68 %, E 60 %

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 91

A	В	С	D	E	FX
84,62	8,79	5,49	0,0	0,0	1,1

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 22.06.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KDMFI/2-UMA-951/15 | Didactics of Mathematics

Number of credits: 3

Educational level: II.

Learning outcomes:

The graduate will be ready to perform the tasks assigned to a beginning math teacher.

Class syllabus:

State final examination in the scope of master's study of mathematics didactics. The student should be able to include the task in the thematic unit, identify preconceptions and the necessary knowledge to solve it, determine the skills that the student will learn on it, respectively. concepts that allows you to discover. The student will demonstrate a model solution, point out problematic places in the solution with which students could have problems and how he would react to them as a teacher. After completing the task, the student should outline the activities that would follow and how he would close the lesson.

State exam syllabus:

1. Logic and sets

Logic (propositions, operations with propositions, logical conjunctions and quantifiers), sets (number of elements of unification of two and three sets, De Morgan's formulas for complement of unification and intersection), proofs and conclusions (direct and indirect proofs, proofs by dispute, mathematical induction, mode ponens, modus tollens).

2. Numbers, variables, numerical fields

Binomial theorem and Pascal's triangle, derivation of formulas a^n-b^n (including geometric interpretation for n = 2 and n = 3).

3. Number theory

Number of prime numbers, relation of largest common divisor and smallest common multiple of two numbers, prime decomposition number of number divisors, irrationality of the square root of a prime number, derivation of divisibility criteria 4, 5, 10, 100, 3, 6, 9.

4. Equations, inequalities and their system

Geometric interpretation of a system of two linear equations with two unknowns, conditions for the existence of solutions, equivalent and non-equivalent modifications and their relation to basic functions.

5. Function and its properties

Basic transformations of function graphs, definitions of basic properties of functions (domain of definition, domain of values, increasing and decreasing, extrema and local extrema - sharp and fuzzy, examples), inverse function and its graph.

6. Linear and quadratic function

Significance of coefficients k and q in the formula of the linear function y = kx + q, geometric meaning of the directive, quadratic function (derivation of the relation for calculating roots, coordinates of the vertex of the parabola.

7. Arithmetic and geometric sequence, infinite (geometric) series

Basic relationship management.

8. Polynomials, power functions and linear polynomials

Root factors and their relation to the roots of a polynomial equation, square roots as inverse functions to power functions, definition of a rational power of a positive number, linear polynomial function (derivation of asymptote equations and conditions why ad \neq bc).

9. Exponential and logarithmic functions

Exponential functions (definition of power for natural, integer and rational exponent, basic properties of exponential function and their justification, simple and compound interest, regular deposits and withdrawals, loan repayments), definition of logarithm, rules for calculating logarithms and their connection with creation of exponential function, relationships between logarithms with different bases.

10. Trigonometric functions

Definition of trigonometric functions in a right triangle and using a unit circle and their mutual relation, values of trigonometric functions for basic angles, accounting formulas, formulas for double and half angle, relations for sum and difference of trigonometric functions.

11. Triangle

Consistency and similarity of triangles, Pythagorean and Euclidean theorems, different relations for the content of a triangle (Heron's formula, using sinus of angle, radius of inscribed and described circle), derivation of statements about intersections of angles, axes of sides, lines, heights, sine and cosine theorem.

12. Parallelograms and trapezoid

Derivation of formulas for the content of parallelograms and trapezoids, derivation of some of their properties the diagonals of a quadrilateral with sides a, b, c, d are perpendicular to each other just when a2 + c2 = b2 + d2).

13. Circle

Formula for the content of a circle and a paragraph, size in degrees and radians, center and circumferential angle, Tales' theorem, estimation of the number π using written and described ngons, related to trigonometric functions.

14. Analytical geometry in the plane and in space

Vectors and operations with them, scalar product and its relation to the angle of two vectors, analytical expression of a line and a plane, various equations of a line, derivation of coordinates of the center of a line and a dividing line in a given ratio, center of a triangle, size of a line, derivation of a formula lines and from the plane, angle of two lines (using scalar product, using directives), angle of line and plane, normal vector.

15. Sets of points of given properties and their analytical expression

Derivation of "basic" sets of points of a given property (including a set of points from which a line can be seen at a given angle).

16. Conic sections

Definitions of conic sections (circle, ellipse, hyperbola and parabola) as sets of points of given properties and derivation of their equations.

17. Suitable and similar representations, construction tasks

Examples of design tasks solved by a combination of calculation and construction, the use of sets of points of given properties in design tasks, examples of design tasks solved using identical and similar representations.

18. Basic ways of displaying space in a plane

Basic properties of parallel projection, hint of their justification, linear perspective and its basic properties, layers and their basic properties.

19. Linear formations in space - positional problems

Use of basic statements about the intersections of a pair of parallel ones planes with another plane when constructing sections of bodies by a plane.

20. Solids

Cavalieri's principle and its application e.g. to calculate the volume of a sphere, a formula for calculating the volume of pyramids and cones, the idea of justifying the formula for the surface of a sphere.

21. Combinatorics

Combinatorial identities, basic combinatorial rules (sum, product), typical examples of their use, derivation of formulas for the number of variations, combinations, permutations (also with repetition), combinatorial derivation of basic relations in the Pascal triangle (symmetry, sum of minor elements).

22. Probability

Statistical and Laplace definition of probability, dependent and independent events, calculation of probability for independent events, geometric probability and an example of its use.

23. Statistics

Statistical set and position measures (modus, median, mean), basic properties of the arithmetic mean (sum of deviations from the mean is equal to 0), various possibilities of describing the "scatter" of the set, Chebyshev's inequality.

Languages necessary to complete the course:

slovak, english

Last change: 17.03.2022

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID:** Course title: FMFI.KAG+KDMFI/2-Didactics of Mathematics (1) UMA-105/15 **Educational activities:** Type of activities: course **Number of hours:** per week: 4 per level/semester: 52 Form of the course: on-site learning Number of credits: 4 **Recommended semester:** 4. Educational level: D, 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: 135 \mathbf{C} D Е FX 70,37 17,78 2,96 0,74 8.15 0.0 Lecturers: doc. PaedDr. Mária Slavíčková, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID:** Course title: FMFI.KAG+KDMFI/2-Didactics of Mathematics (2) UMA-106/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. Educational level: D, 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: 115 \mathbf{C} D Е FX 72.17 16,52 7.83 3,48 0.0 0.0 Lecturers: Mgr. Michaela Vargová, PhD. Last change: 02.06.2015

Strana: 20

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID:** Course title: FMFI.KMANM/2-Didactics of Mathematics in Praxis (1) UMA-259/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. **Educational level: 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: 83 Α \mathbf{C} D FX Ε 100.0 0.0 0.0 0.0 0.0 0.0 Lecturers: Mgr. Jana Trúsiková, PhD., doc. RNDr. Zbyněk Kubáček, CSc. Last change: 30.01.2022 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title: FMFI.KMANM/2-

Didactics of Mathematics in Praxis (2) UMA-260/15

Educational activities: Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 6.

Educational level: II.

Prerequisites:

Course requirements:

Ongoing evaluation: homeworks

Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Students will be prepared for the situations they will experience in the school reality of teaching mathematics in secondary school. They will know various teaching techniques, methods of interpretation, working with the textbook as well as supplementary materials, various forms of written and oral examinations, as well as methods of correcting children's solutions. They will learn to distinguish which statements help students and which harms them.

Class syllabus:

Evaluation and classification. Preparations, analysis and corrections of written works and tests (topics will be documented in the secondary school curriculum).

Recommended literature:

Aj geometria naučila človeka myslieť / Milan Hejný. Bratislava : Slovenské pedagogické nakladateľstvo, 1990

Dítě, škola a matematika : Konstruktivistické přístupy k vyučování / Milan Hejný, František Kuřina. Praha: Portál, 2001

Stavba planimetrie / Ján Gatial, Milan Hejný. Bratislava: Slovenské pedagogické nakladateľstvo, 1973

Teória vyučovania matematiky 2 / Milan Hejný ... [et al.]. Bratislava : Slovenské pedagogické nakladateľstvo. 1990

Analýza řešení slovních úloh : Kapitoly z didaktiky matematiky. / Jarmila Novotná.. Praha : Univerzita Karlova, 2000.

Languages necessary to complete the course:

Slovak, English

Notes:							
Past grade distribution Total number of evaluated students: 65							
A	В	С	D	Е	FX		
100,0	0,0	0,0	0,0	0,0	0,0		
Lecturers: Mgr	. Jana Trúsiková,	PhD., doc. RND	r. Zbyněk Kubáč	ček, CSc.			
Last change: 15.03.2022							
Approved by:							

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-108/15

Didactics of Programming (1)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 3.

Educational level: D, II.

Prerequisites:

Course requirements:

Continuous assessment: The student can get 50% of points for the preparation of topics for computer science lessons, another 25% of points for the preparation of detailed methodological material for teachers. He can get the remaining 25% of points for the didactic output.

Indicative assessment scale: A 92%, B 84%, C 77%, D 68%, E 60%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Students are able to analyze and evaluate programming languages, environments, textbooks and other materials from the perspective of programming didactics. They will compile and implement a lesson focused on programming in primary school with regard to the stages of the cognitive process.

Class syllabus:

- Programming languages and environments in terms of programming didactics
- Basic programming constructions and their order in teaching programming for different programming languages
- Programming in the state educational program
- Teaching programming in primary school
- Didactics of teaching the topic of sequence of commands
- The topic of the cycle and various didactic procedures of its teaching
- Variables and students' ability to understand their meaning and how they are used in programming
- Construction of a conditional statement in programming languages, logical conditions and didactic procedures suitable for mastering a conditional statement
- Testing students in teaching programming
- The importance of student evaluation in didactics, project teaching, peer evaluation of programming projects

Recommended literature:

- The teacher's own electronic study materials published on the subject's website, resp. in Moodle
- L'ubomír Salanci [et al.] Programming Didactics 1: Further education of qualified computer science teachers at the 2nd level of primary school and at secondary school. 1st ed. Bratislava:

Štátny pedagogický ústav, 2010. - 36 s. - (In-service training of primary and secondary school teachers in computer science)

- L'ubomír Salanci [et al.]: Didactics of programming 2: Further education of qualified computer science teachers at the 2nd level of primary and secondary schools. 1st ed. Bratislava: Štátny pedagogický ústav, 2010. 36 s. (In-service training of primary and secondary school teachers in computer science)
- Vaníček, J., Nagyová, I., Tomcsányiová, M.: Programming in Scratch for the 2nd level of primary school. University of South Bohemia in České Budějovice, 2020. Černochová, M., Vaňková, P., Štípek, J.: Scratch programming for advanced projects for the 2nd grade of primary school. University of South Bohemia in České Budějovice, 2020.

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 44

A	В	С	D	Е	FX	
75,0	22,73	2,27	0,0	0,0	0,0	

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-109/15 Didactics of Programming (2) **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 4. **Educational level:** D, II. **Prerequisites:** FMFI.KDMFI/2-UIN-108/15 - Didactics of Programming (1) **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 40 A В \mathbf{C} D E FX 60,0 10,0 7,5 12,5 5,0 5,0 Lecturers: doc. RNDr. Ľudmila Jašková, PhD.

Strana: 26

Last change: 04.06.2021

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UMA-151/15 | Didactics of Teaching Mathematics in Digital Environment

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: 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: 85

A	В	С	D	Е	FX
55,29	15,29	17,65	4,71	4,71	2,35

Lecturers: RNDr. Monika Dillingerová, PhD., doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/1-UXX-137/15 Digital Technologies (1) **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **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: 164 Α В \mathbf{C} D E FX 70,73 7,32 14,02 2,44 0,61 4,88 Lecturers: Mgr. Mária Čujdíková, PhD., doc. PaedDr. Monika Tomcsányiová, PhD.

Strana: 28

Last change: 02.06.2015

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-138/15

Digital Technologies (2)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 2.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UXX-137/15 - Digital Technologies (1)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 136

A	В	С	D	Е	FX
69,85	17,65	7,35	0,0	2,21	2,94

Lecturers: Mgr. Mária Čujdíková, PhD., doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-236/15

Digital Technologies (3)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UXX-137/15 - Digital Technologies (1)

Course requirements:

Intermediate assessment: assignments (must get min. 50% points), essay (required, 25%)

Indicative evaluation scale: A 92%, B 84%, C 76%, D 68%, E 60%

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 115

A	В	С	D	Е	FX
73,04	13,04	5,22	3,48	0,87	4,35

Lecturers: PaedDr. Roman Hrušecký, PhD., PaedDr. Andrea Hrušecká, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI+KAG/1-

Digital Technologies (4)

UXX-237/15

Educational activities: Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 5.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UXX-137/15 - Digital Technologies (1)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 86

A	В	C	D	Е	FX
76,74	13,95	5,81	2,33	1,16	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD., RNDr. Martina Bátorová, PhD., PaedDr. Lukáš Bartošovič, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/1-UXX-341/15 Digital Technologies (5) **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 6. **Educational level:** I., II. **Prerequisites:** FMFI.KDMFI/1-UXX-137/15 - Digital Technologies (1) **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 44 C Α В D Ε FX 65,91 11,36 11,36 6,82 2,27 2,27

Lecturers: RNDr. Monika Dillingerová, PhD.

Last change: 02.06.2015

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:
FMFI.KAG+KDMFI/2UXX-991/15

Number of credits: 14

Educational level: II.

State exam syllabus:
Last change: 02.06.2015

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UXX-932/13

Diploma Thesis in Computer Science Seminar (1)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 1 per level/semester: 13 Form of the course: on-site learning

Number of credits: 1

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:

Active participation, reporting on ongoing work on the thesis.

A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The graduate of the course is able to obtain and sort information from information sources, especially from monographs, journal articles, conference proceedings and university textbooks. The graduate is able to plan research in the area of the thesis.

Class syllabus:

Formulating the objectives of the thesis on the basis of its assignment; obtaining, sorting and using available resources; working with electronic information sources; formulating research questions, searching for research methods suitable for the topic of the thesis.

Recommended literature:

Creswell JW. Educational research: Planning, conducting, and evaluating quantitative. Prentice Hall Upper Saddle River, NJ; 2002.

Sources listed in the thesis assignment. Sources available in databases (e.g. wos, scopus, researchgate). Publications by members of the Department of Didactics of Computer Science. Textbook on research methodology in science teaching recommended by the thesis supervisor.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 25

A	В	C	D	Е	FX
88,0	8,0	0,0	0,0	4,0	0,0

Lecturers: doc. RNDr. Zuzana Kubincová, PhD.

Last change: 17.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UXX-934/13

Diploma Thesis in Computer Science Seminar (2)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 1 per level/semester: 13 Form of the course: on-site learning

Number of credits: 1

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Active participation, ongoing reporting on work on the thesis.

A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The graduate is able to elaborate the chosen topic at the level of a scientific study with a representative selection of literature, with appropriately chosen scientific procedures and hypotheses that can be verified. The graduate is able to formulate the contribution of his/her own work in the field of informatics teaching.

Class syllabus:

Development of argumentation skills, causal thinking and creativity in the area of the thesis topic. Development of abilities to present the results of own work in the field of the thesis topic.

Recommended literature:

Creswell JW. Educational research: Planning, conducting, and evaluating quantitative. Prentice Hall Upper Saddle River, NJ; 2002.

Sources listed in the thesis assignment. Sources available in databases (e.g. wos, scopus, researchgate). Publications by members of the Department of Didactics of Computer Science. Textbook on research methodology in science teaching recommended by the thesis supervisor.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 21

A	В	С	D	Е	FX
61,9	23,81	9,52	4,76	0,0	0,0

Lecturers: doc. RNDr. Zuzana Kubincová, PhD.

Last change: 17.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UXX-936/15

Diploma Thesis in Computer Science Seminar (3)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 1 per level/semester: 13 Form of the course: on-site learning

Number of credits: 1

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Active participation, ongoing reporting on work on the thesis. A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

After completing the course, the student is able to work on the chosen topic at the level of a scientific study with a representative selection of literature, with appropriately chosen scientific procedures and hypotheses that can be verified. He/she is able to formulate the contribution of his/her own work in the field of computer science teaching and adequately present the results of his/her work to the professional public.

Class syllabus:

Development of the ability to present the results of own work in the field of the thesis topic. Development of argumentation skills, causal thinking and creativity in the area of the thesis topic.

Recommended literature:

Creswell JW. Educational research: Planning, conducting, and evaluating quantitative. Prentice Hall Upper Saddle River, NJ; 2002. Sources listed in the thesis assignment. Sources available in databases (e.g. wos, scopus, researchgate). Publications by members of the Department of Didactics of Computer Science. Textbook on research methodology in science teaching recommended by the thesis supervisor.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 10

A	В	С	D	Е	FX
80,0	20,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Zuzana Kubincová, PhD.	
Last change: 17.06.2022	
Annroyed by:	

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-937/10 Diploma Thesis in Mathematics Seminar **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. **Educational level: 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: 62 Α В \mathbf{C} D E FX 61,29 12,9 16,13 4,84 3,23 1,61 Lecturers: PaedDr. Peter Vankúš, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UMA-207/15 Elementary Theory of Quadratic Figures **Educational activities:** Type of activities: course **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 4 **Recommended semester: 3. Educational level: 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: 131 \mathbf{C} Α В D E FX 19,08 25,95 9,92 21,37 15,27 8,4 Lecturers: RNDr. Martina Bátorová, PhD. Last change: 02.06.2015

Strana: 41

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KAI/2-MXX-130/21

Elements of AI

Educational activities:

Type of activities: independent work

Number of hours:

per week: 25 per level/semester: 325 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:

Passing the online course https://course.elementsofai.com/ (in Enlish or Slovak version).

Learning outcomes:

The student will get acquainted with selected basic concepts of artificial intelligence and their use in solving various practical tasks.

Class syllabus:

- 1. What is artificial intelligence: related areas, AI philosophy.
- 2. Troubleshooting and UI: Browsing and troubleshooting, browsing and games
- 3. Probability and chance, Bayes' theorem, naive Bayesian classification.
- 4. Machine learning: nearest neighbor classifier, regression.
- 5. Neural networks: basics, creation, modern techniques.
- 6. Consequences: on predicting the future, the effects of AI on society, summary.

Recommended literature:

Russell S., Norwig P. (2010). Artificial Intelligence: A Modern Approach, (3rd ed.), Prentice Hall. Available in faculty library.

Marsland S. (2015). Machine Learning: An Algorithmic Perspective, (2nd ed.), CRC Press.

Languages necessary to complete the course:

Slovak or English

Notes:

The course consists of 20 numerical and 5 text-based tasks. Numerical tasks are checked automatically, text-based tasks are evaluated anonymously by students.

Past grade distribution

Total number of evaluated students: 37

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Mária Markošová, PhD.

Last change: 22.08.2021	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KAI/2-MXX-130/21

Elements of AI

Educational activities:

Type of activities: independent work

Number of hours:

per week: 25 per level/semester: 325 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:

Passing the online course https://course.elementsofai.com/ (in Enlish or Slovak version).

Learning outcomes:

The student will get acquainted with selected basic concepts of artificial intelligence and their use in solving various practical tasks.

Class syllabus:

- 1. What is artificial intelligence: related areas, AI philosophy.
- 2. Troubleshooting and UI: Browsing and troubleshooting, browsing and games
- 3. Probability and chance, Bayes' theorem, naive Bayesian classification.
- 4. Machine learning: nearest neighbor classifier, regression.
- 5. Neural networks: basics, creation, modern techniques.
- 6. Consequences: on predicting the future, the effects of AI on society, summary.

Recommended literature:

Russell S., Norwig P. (2010). Artificial Intelligence: A Modern Approach, (3rd ed.), Prentice Hall. Available in faculty library.

Marsland S. (2015). Machine Learning: An Algorithmic Perspective, (2nd ed.), CRC Press.

Languages necessary to complete the course:

Slovak or English

Notes:

The course consists of 20 numerical and 5 text-based tasks. Numerical tasks are checked automatically, text-based tasks are evaluated anonymously by students.

Past grade distribution

Total number of evaluated students: 37

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Mária Markošová, PhD.

Last change: 22.08.2021	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-233/13 English Conversation Course (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1., 3.

Educational level: I., II.

Prerequisites:

Course requirements:

tests, presentations, essays

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-

priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Continual improvement of all language skills focused on communication/speaking, listening comprehension and writing. The emphasis is on discourse, lexicology and morphology, word-bank broadening of communicational English as well as English for specific purposes appropriate for university students. This course is a follow up of the previously taught ESP course.

Class syllabus:

This course's focus is to broaden spoken/communicational English for students with B2/C1 level of English knowledge.

Recommended literature:

Appropriate study material is supplied based on the participants'level of English by the lecturer. (Sources- The Guardian, The Herald Morning Sun. The Nine News, The West Australian, BBC News and podcasts, CNN podcasts).

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 215

A	В	С	D	Е	FX
67,44	13,02	6,51	1,86	1,4	9,77

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KJP/1-MXX-234/13

English Conversation Course (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2., 4.

Educational level: I., II.

Prerequisites:

Course requirements:

tests, oral presentations, essays

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Continual improvement of all language skills focused on communication/speaking, listening comprehension and writing. The emphasis is on discourse, lexicology and morphology, word-bank broadening of communicational/spoken English as well as English for specific purpose appropriate for university students. This course is a follow up of the Conversational English course 1.

Class syllabus:

This course's focus is to broaden spoken/communicational English for students with B2/C1 level of English knowledge (Upper-Intermediate/Lower Advanced).

Recommended literature:

Appropriate study material is supplied based on the participants'level of English by the lecturer. (Sources- The Guardian, The Herald Morning Sun. The Nine News, The West Australian, BBC News and podcasts, CNN podcasts).

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 146

A	В	С	D	Е	FX
77,4	12,33	3,42	1,37	0,0	5,48

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-141/00 French Language (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

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:

Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 435

A	В	С	D	E	FX
45,75	20,0	18,85	8,74	2,3	4,37

Lecturers: Mgr. Ľubomíra Kožehubová

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-142/00 French Language (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

The subject continues the program of French language (1) and provides courses of essential and intermediate French language.

Recommended literature:

Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 265

A	В	C	D	Е	FX
38,87	25,28	19,62	10,19	2,64	3,4

Lecturers: Mgr. Ľubomíra Kožehubová

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-241/00 French Language (3)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

The subject provides a course of intermediate French language, covering not only general, but also technical language.

Recommended literature:

Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 104

A	В	C	D	Е	FX
39,42	27,88	21,15	6,73	0,96	3,85

Lecturers: Mgr. Ľubomíra Kožehubová

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-242/00 French Language (4)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

The subject provides a course of intermediate French covering not only general, but also technical French language.

Recommended literature:

Menand Robert: Le Nouveau taxi 2, Hachette FLE, Paris, France 2009, ISBN 978-2-01-155551 -

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 74

A	В	С	D	Е	FX
41,89	32,43	17,57	2,7	1,35	4,05

Lecturers: Mgr. Ľubomíra Kožehubová

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-151/00 German Language (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

To master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

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.

This course's focus is to master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Recommended literature:

Appropriate study material is supplied by teacher based on the participants' level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 734

A	В	C	D	Е	FX
36,1	27,25	19,62	8,99	2,72	5,31

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KJP/1-MXX-152/00

German Language (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

To master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Class syllabus:

German 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 German.

This course's focus is to to master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Recommended literature:

Appropriate study material is supplied by teacher based on the participants' level of German proficiency

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 480

A	В	С	D	Е	FX
36,04	20,21	20,83	13,13	3,33	6,46

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-251/00 German Language (3)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Master the basics of general language and basic professional terminology of individual fields of study (depending on the advanced level of students)

Class syllabus:

The course is a follow-up to the German language (1,2). The subject provides a course of intermediate or advanced German language.

This course's focus is to deepen the knowledge of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency).

Recommended literature:

Appropriate study material is supplied by teacher based on the participants' level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 165

A	В	С	D	Е	FX
41,21	25,45	20,61	6,67	2,42	3,64

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-252/00 German Language (4)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Master the basics of general language and basic professional terminology of individual fields of study (depending on the advanced level of students)

Class syllabus:

The course is a follow-up to the German language (1-3). It provides a course of intermediate and advanced German language.

This course's focus is to deepen the knowledge of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency).

Recommended literature:

Appropriate study material is supplied by teacher based on the participants' level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 90

A	В	С	D	Е	FX
42,22	24,44	12,22	12,22	3,33	5,56

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-108/00 History of Informatics **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 Recommended semester: 4. Educational level: II. **Prerequisites: Course requirements:** Continuous assessment: active participation in class, presentation Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 100/0 **Learning outcomes:** Students will know the basic milestones in the history of storing, transmitting and processing information from antiquity to the present day, as well as a brief history of computer science. Class syllabus: • History of storage, transmission and processing of information (various storage media: stone, clay, papyrus, parchment, paper, magnetic record; • information transmission: messenger, sound and light signals, wire telegraph I wireless, radio, television, internet; • information processing: fonts, positional systems, analog aids, the first calculators, the idea of a universal computer, digital machines, the first electromechanical and electronic computers, a brief look at the development of computer technology after the Second World War). • History of informatics: algorithm, development in mathematics that influenced informatics: algebra, variables, mathematics mathematics, development of analysis, logic, decidability, computability, efficiency. • Brief overview of the history of computer technology and informatics in Slovakia (within Czechoslovakia) **Recommended literature:** - Teacher's own electronic study materials published on the course website or in the Moodle system - Gruska, Havel, Zelený, Wiedermann. Počítačová revolúcia, Sofsem 1984 Languages necessary to complete the course:

Strana: 58

Slovak

Notes:

Past grade distribution Total number of evaluated students: 89							
A B C D E							
100,0	0,0	0,0	0,0	0,0	0,0		
Lecturers: RN	Dr. Michal Wincz	zer, PhD.		_			
Last change: 17.06.2022							
Approved by:							

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UXX-103/00 History of Mathematics **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level: 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: 43 C Α В D E FX 79,07 4,65 0,0 13,95 0,0 2,33 Lecturers: prof. RNDr. Ladislav Kvasz, Dr. Last change: 02.06.2015 Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-268/15 **Information Systems Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester: 5. Educational level: 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: 17 Α В \mathbf{C} D E FX 88,24 5,88 0,0 0,0 5,88 0,0Lecturers: doc. RNDr. Ľudmila Jašková, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-246/10

Interactive Programming and Visual Modelling

Educational activities:

Type of activities: course

Number of hours:

per week: 4 per level/semester: 52 Form of the course: on-site learning

Number of credits: 4

Recommended semester: 2.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-241/15 - Programming (3)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 80

A	В	С	D	Е	FX
36,25	15,0	11,25	13,75	15,0	8,75

Lecturers: prof. RNDr. Ivan Kalaš, PhD., PaedDr. Andrea Hrušecká, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID:** Course title: FMFI.KAG+KDMFI/2-Introduction to Didactics of Mathematics UMA-104/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 3 **Recommended semester: 3.** Educational level: D, 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: 142 \mathbf{C} D Е FX 92.25 4.93 0.7 0.7 0.0 1,41 Lecturers: doc. PaedDr. Mária Slavíčková, PhD. Last change: 02.06.2015

Strana: 64

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KAG+KI/2- Introduction to Graph Theory UMA-164/15

Educational activities:
Type of activities: course

Number of hours:

per week: 3 per level/semester: 39 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KAGDM/1-UMA-311/00

Course requirements:

Continuous evaluation: homework (20 p.)

Final exam: written (80 p.)

Grades: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 20/80

Learning outcomes:

Knowledge of basic concepts and results of graph theory, solutions of specific tasks which can be expressed in the language of graph theory.

Class syllabus:

Concept of graph, connectivity, metrics, finding shortest path, walks in graphs, trees, finding optimal tree, travelling salesman problem, matching in biparted graphs, perfect matching, planar graphs, Euler formula, coloring graphs and maps.

Recommended literature:

Kapitoly z diskrétní matematiky / Jiří Matoušek, Jaroslav Nešetřil. Praha : Karolinum, 2000 Applied and algorithmic graph theory / Gary Chartrand, Ortrud R. Oellermann. New York : McGraw Hill. 1993

Graph theory and its applications / Jonathan L. Gross, Jay Yellen. Boca Raton, Fla. : Chapman & Hall, 2006

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 101

A	В	С	D	Е	FX
95,05	3,96	0,0	0,0	0,99	0,0

Approved by:	
Last change: 19.06.2022	
Lecturers: RNDr. Jana Tomanová, CSc.	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UMA-218/11

Mathematical Background of Music

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 5.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: individual work of students, project

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

By completing the course, the student will deepen and combine knowledge of basic mathematics courses in bachelor's studies in the study program mathematics teacher preparation in combination, build on knowledge of mathematics didactics and broaden horizons in the context of creating lessons using interdisciplinary relationships.

Class syllabus:

Selected parts of music theory from the point of view of mathematics, connection to mathematics from lower secondary school to university, related to the teaching of mathematics, preparation of interdisciplinary projects and activities for direct inclusion in teaching and leisure activities.

Recommended literature:

Mathematics and Art / Bruter (Ed.), Springer

Hudba ako zdroj námetov vo vyučovaní matematiky / M. Slavíčková, In. Matematika, informatika, fyzika. Roč. 21, č. 38 (2012), s. 3-8. ISSN 1335-7794

Chladniho obrazce / E. Dubajová, (časť diplomovej práce), dostupné na https://wilma.sk/dokumenty/ef0ed9b0f05bd757ddcf91b96794b0cf/show

The Science of Sound / T. D. Rossing, R. F. Moore, P. A. Wheeler, 3. vyd., Pearson, 2014 Music: A Mathematical Offering / D. Benson, Department of Mathematics, Meston Building, University of Aberdeen, UK. 2008

Languages necessary to complete the course:

slovak, english

Notes:

To complete the course, it is recommended to have at least a basic knowledge of music theory (min. of 2 years music school)

Past grade distribution Total number of evaluated students: 13							
A B C D E FX							
100,0	0,0	0,0	0,0	0,0	0,0		
Lecturers: doc.	PaedDr. Mária S	slavíčková, PhD.					
Last change: 17.03.2022							
Approved by:							

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UMA-231/10 Mathematical Competitions and Seminars **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 3., 5. **Educational level: 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: 64 Α В \mathbf{C} D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: PaedDr. Peter Vankúš, PhD. Last change: 24.04.2017 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KAG+KDMFI/2-

UMA-257/15

Methods for Solving Mathematical Tasks (1)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: Homework - individual work of students Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

After completing the course, students will master methods of solving various mathematical tasks from the curriculum of lower and upper secondary school and will be able to apply these methods in the teaching of mathematics.

Class syllabus:

Generally about solving mathematical tasks, basic methods of solving mathematical tasks—patterns identification and conclusion making, figural approaches to solving, formulating equivalent problems, modifying the problem, choosing effective marking, using symmetry, dividing the problem into several special cases, reverse procedure, indirect procedure, use of parity, mathematical induction, Dirichlet (Pigeon) principle.

Recommended literature:

Metódy riešenia matematických problémov / L. C. Larson ; from the American original translated by Jaroslav Smítal. Bratislava : Alfa, 1990

Metódy riešenia matematických úloh / Tomáš Hecht, Zita Sklenáriková. Bratislava : Slovenské pedagogické nakladateľstvo, 1992

Tasks from Mathematical Olympiad and Mathematical correspondence seminars

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution Total number of evaluated students: 120					
A	В	С	D	Е	FX
87,5	5,0	1,67	0,0	0,83	5,0
Lecturers: Mgr. Emília Miťková, PhD.					
Last change: 17.03.2022					
Approved by:					

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG+KDMFI/2-Methods for Solving Mathematical Tasks (2) UMA-258/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 2 Recommended semester: 4. **Educational level: II. Prerequisites: Course requirements:** Continuous assessment: Homework - individual work of students Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 100/0 **Learning outcomes:** After completing the course, students will master methods of solving various mathematical tasks from the curriculum of lower and upper secondary school and will be able to apply these methods in the teaching of mathematics. Class syllabus: Equations, inequalities, systems of equations and inequalities, sets of points of given properties, analytical geometry, construction tasks, planimetric tasks, stereometric tasks, inequalities in geometry, number theory, diophantic equations, combinatorial geometry, sequences, recurrent relationships, trigonometry and complex numbers, probability. **Recommended literature:** Metódy riešenia matematických problémov / L. C. Larson; from the American original translated by Jaroslav Smítal. Bratislava: Alfa, 1990 Metódy riešenia matematických úloh / Tomáš Hecht, Zita Sklenáriková. Bratislava : Slovenské pedagogické nakladateľstvo, 1992 Tasks from Mathematical Olympiad and Mathematical correspondence seminars

Strana: 72

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution Total number of evaluated students: 78							
A B C D E FX							
92,31	3,85	1,28	0,0	0,0	2,56		
Lecturers: Mgi	r. Emília Miťková	i, PhD.					
Last change: 17.03.2022							
Approved by:							

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-238/15

Mobile Platform Programming for Secondary Schools

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 5.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: The student can get 50% points for active participation in seminars and task development. He will get another 50% of points for the design and implementation of the project. Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

After completing the course the student

- has an overview of programming environments that are suitable for programming applications for mobile platforms
- is able to recognize which environment is suitable for high school students
- knows and is able to apply knowledge of other programming languages in a language that is suitable for programming mobile devices
- is able to assess which applications in the selected programming tool are suitable and reasonably demanding for high school students
- programs moderately demanding projects in the selected environment

Class syllabus:

- Programming languages and environments for mobile devices
- Overview of mobile platforms and programming approaches for them
- Programming tools for programming mobile applications that are suitable for high school students.
- Multi-platform development environment versus platform-specific development environment
- Cycle and its use in the selected programming language
- Create and use variables in simple tasks for mobile devices
- Conditional statement construction
- Project specification and design
- Project implementation, debugging
- Project presentation, evaluation and project discussion

Recommended literature:

The teacher's own electronic study materials published on the subject's website, resp. in Moodle

Beginning Android 4 application development / Wei-Meng Lee; Chaim Krause. Indianapolis, Ind.: Wrox / John Wiley & Sons, 2012

MIT App Inventor, website and educational materials from www.appinventor.mit.edu

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 11

A	В	С	D	Е	FX
45,45	27,27	9,09	0,0	0,0	18,18

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course title: Course ID:** FMFI.KDMFI/2-UIN-242/15 Networks **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level: 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: 5 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Miroslav Wagner Last change: 02.06.2015 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UMA-114/15

New Pedagogical Approaches in Teaching Not Only Mathematics

Educational activities:

Type of activities: seminar

Number of hours:

per week: 3 per level/semester: 39 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 5.

Educational level: D, 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: 42

A	В	С	D	Е	FX
85,71	7,14	4,76	0,0	0,0	2,38

Lecturers: RNDr. Monika Dillingerová, PhD.

Last change: 22.05.2019

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UMA-162/15 Non-Euclidean Geometry **Educational activities:** Type of activities: course **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 5. **Educational level: 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: 34 C Α В D E FX 61,76 20,59 2,94 8,82 5,88 0,0Lecturers: doc. RNDr. Pavel Chalmovianský, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-111/15 **Operating Systems Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester: 4. Educational level: II.** Prerequisites: FMFI.KDMFI/2-UIN-107/10 - Computer Systems **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 20 В A \mathbf{C} D Ε FX 45,0 15,0 20,0 0,0 20,0 0,0Lecturers: Mgr. Miroslav Wagner Last change: 02.06.2015

Strana: 79

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAI/1-UXX-231/18 Pedagogic Communication **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 4. Educational level: D, I., II. **Prerequisites:** Antirequisites: FMFI-Prif.KDPP/1-UXX-231/10 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 213 Α В C D Ε FX 48,83 19,72 9.86 13,62 2,82 5,16

Lecturers: doc. RNDr. Martin Takáč, PhD.

Last change: 07.05.2018

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-121/18 Pedagogic Diagnostics **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** II. **Prerequisites: Antirequisites:** FMFI-Prif.KDPP/2-UXX-121/15 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 297 Α В C D Ε FX

5,39

2,36

1,35

Lecturers: Mgr. Lucia Budinská, PhD., Mgr. Karolína Miková, PhD.

18,18

27,95

Last change: 14.02.2021

Approved by:

44,78

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-123/15 Pedagogic Research Methodology (1) **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level:** 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: 136 Α В \mathbf{C} D E FX 69,12 19,12 5,88 1,47 2,21 2,21 Lecturers: Mgr. Karolína Miková, PhD., PaedDr. Peter Vankúš, PhD. Last change: 08.06.2017

Strana: 82

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-124/15 Pedagogic Research Methodology (2) **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** 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: 43 Α В \mathbf{C} D E FX 65,12 16,28 2,33 2,33 2,33 11,63 Lecturers: PaedDr. Peter Vankúš, PhD., Mgr. Karolína Miková, PhD. Last change: 08.06.2017

Strana: 83

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI-PriF.KDPP/2-Philosophical Anthropology and Axiology UXX-122/15 **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level:** II. **Prerequisites:** Antirequisites: FMFI-PriF.KDPP/2-UXX-122/10 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 155 В \mathbf{C} Α D Е FX 76.77 18,06 3.23 1.29 0.65 0.0 Lecturers: Mgr. Štefan Zolcer, PhD.

Strana: 84

Last change: 02.06.2015

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KTV/2-MXX-110/00

Physical Education and Sport (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

Practicing of the students' game skills in collective sports: basketball, volleyball, floorball and hockey. Mastering of the basic technique of a particular sport discipline in other sports. In paddling, basic training on still and slightly flowing water. Development of coordination skills, improvement of articular mobility and cardiovascular system.

Recommended literature:

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 1657

A	В	С	D	E	FX
98,37	0,6	0,06	0,0	0,0	0,97

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek, Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KTV/2-MXX-120/00

Physical Education and Sport (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

Practicing of offensive and defensive game combinations and playing with modified rules in collective sports such as basketball, volleyball, football, floorball, hockey. Command of elements of higher difficulty in locomotion skills (swimming - crawl stroke, breast stroke, butterfly stroke, trampoline jumping and aerobics – practicing of areobics compositions, bodybuilding – development of the main muscle groups, paddling on running water. Testing of the level of physical fitness and coordination skills.

Recommended literature:

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 1557

A	В	C	D	Е	FX
98,52	0,39	0,06	0,06	0,06	0,9

Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Branislav Nedbálek, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KTV/2-MXX-210/00

Physical Education and Sport (3)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

To improve offensive and defensive game combinations in collective sports. Practicing of tactical and technical elements in individual sports. Compensatory exercises to correct wrong body posture. Stretching. Competition rules in sport disciplines.

Recommended literature:

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 1281

A	В	С	D	Е	FX
98,75	0,47	0,08	0,0	0,0	0,7

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek, Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KTV/2-MXX-220/00

Physical Education and Sport (4)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Class syllabus:

Sport training for Faculty Championships in a selected sport with modified rules. Selection of sport-talented students into teams of the Faculty Sport League, University League of Bratislava Faculties, and participation in sport events of the Faculty and University.

Recommended literature:

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution

Total number of evaluated students: 1110

A	В	С	D	Е	FX
98,47	0,45	0,09	0,09	0,09	0,81

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Branislav Nedbálek, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-341/15

Principles of Educational Software (1)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: D, I., II.

Prerequisites: FMFI.KDMFI/1-UIN-246/10 - Interactive Programming and Visual Modelling

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 46

A	В	С	D	Е	FX
47,83	39,13	8,7	2,17	0,0	2,17

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KDMFI/1-UIN-343/15 | Principles of Educational Software (2)

Educational activities: Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-341/15 - Principles of Educational Software (1)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 14

A	В	С	D	Е	FX
71,43	28,57	0,0	0,0	0,0	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UMA-253/19 Problematic Topics of Elementary School Mathematics **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 4. Educational level: 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: 3 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: doc. PaedDr. Mária Slavíčková, PhD. Last change: Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/1-UIN-141/15 Programming (2) **Educational activities:** Type of activities: lecture / practicals **Number of hours:** per week: 2 / 2 per level/semester: 26 / 26 Form of the course: on-site learning **Number of credits:** 6 **Recommended semester: 2. Educational level:** I., II. **Prerequisites:** FMFI.KDMFI/1-UIN-140/15 - Programming (1) **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:**

Past grade distribution

Total number of evaluated students: 47

A	В	С	D	Е	FX
48,94	17,02	17,02	8,51	0,0	8,51

Lecturers: doc. RNDr. Zuzana Kubincová, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-241/15

Programming (3)

Educational activities:

Type of activities: lecture / practicals

Number of hours:

per week: 2 / 2 per level/semester: 26 / 26

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 3.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-141/15 - Programming (2) or FMFI.KDMFI/1-UIN-141/22 -

Programming (2)

Course requirements:

Continuous assessment: assessment of homework (5%), short tests (40%), a project (10%) and one final test (15%)

Examination: practical programming examination

Indicative grading scale: A 88%, B 81%, C 74%, D 67%, E 60%

Scale of assessment (preliminary/final): 70/30

Learning outcomes:

After completing the course, students will be able to use more complex data types and program constructs of the object-oriented programming language and basic algorithms for working with them, they will better understand the principles of object-oriented programming, they will be able to program the solution of more complex problems and analyze more complex programs.

Class syllabus:

- other data types and program constructs
- recursion
- polymorphism
- working with images and animation
- linked structures
- algorithms on more complex structures

Recommended literature:

- the teacher's own electronic study materials published on the course website or in the Moodle system
- Pecinovský, R.: Začínáme programovat v jazyku Python. Grada, 2020, S. 272
- Guniš, J., Šnajder, Ľ.: Programovanie v Pythone 1. Univerzita Pavla Jozefa Šafárika v Košiciach, 2021, S. 170
- Kučera, P.: Programujeme v Pythone, e-kniha, 2017

Languages necessary to complete the course:

Slovak

Notes:							
Past grade distribution Total number of evaluated students: 39							
A	В	С	D	Е	FX		
46,15	17,95	17,95	5,13	5,13	7,69		
Lecturers: doc.	RNDr. Zuzana k	Kubincová, PhD.					
Last change: 22.06.2022							
Approved by:	Approved by:						

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-262/15

Programming Competitions

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 6.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: active participation in class, homework, written work

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:

310 / 5 000

Výsledky prekladov

Students will have an overview of computer competitions for primary and secondary school, respectively. with competitions that have no restrictions on participants. They will know the characteristics of these competitions in order to be able to guide the students in which to participate. They will know the difficulty level of the tasks in each competition.

Class syllabus:

Overview of IT competitions with a focus on computer programming, resp. Troubleshooting. Get acquainted with their rules, organization, target group and other specifics. Samples of problems from these competitions and their solutions.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 19

Α	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 14.03.2022

Approved by:

Strana: 96

Languages necessary to complete the course:

Notes:

Past grade distribution Total number of evaluated students: 36						
A	В	С	D	E 5,56	FX	
80,56	2,78	5,56	5,56	5,56	0,0	
Lecturers: RNDr. Michal Winczer, PhD.						
Last change: 14.03.2022						
Approved by:						

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-325/15

Programming Etudes (2)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 6.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-241/15 - Programming (3) and FMFI.KDMFI/1-UIN-236/15

- Algorithms and Data Structures

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 32

A	В	C	D	Е	FX
81,25	3,13	3,13	9,38	0,0	3,13

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 30.11.2021

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-pUIN-002/15 Programming Languages in Education **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 3. Educational level: D, 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: 22 Α В \mathbf{C} D Ε FX 72,73 4,55 13,64 0,0 4,55 4,55

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-350/15

Programming in C#

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-241/15 - Programming (3)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 27

A	В	С	D	Е	FX
81,48	3,7	3,7	3,7	0,0	7,41

Lecturers: doc. RNDr. Ľubomír Salanci, PhD., doc. RNDr. Ľudmila Jašková, PhD., Mgr. Mária Čujdíková, PhD.

Last change: 05.11.2021

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-351/17

Programming in JavaScript

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:

The student can get 50% points for studying and applying the features of the JavaScript programming language. He can get another 50% of points for programming the assigned tasks during the seminars.

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The student:

- knows the commands of JavaScript, a language that is suitable for creating applications that work in a web browser
- Understands how to embed JavaScript code in an html page
- recognizes and explains the function of individual elements that are part of the html code and whose actions are linked to JavaScript
- is able to write and debug its problem solution in JavaScript language

Class syllabus:

Course contents:

Basic structures of JavaScript: variables, Boolean expressions

JS and html collaboration

JS and functions

Design for repetition

Branching in JS

One-dimensional arrays, array rendering

Two-dimensional arrays, Life game

Mouse events - click

Mouse events - dragging

Special event customization and syntax for mobile devices

Working with images in JS

Recommended literature:

Tomcsányiová, M.: JavaScript: from Introduction to Games, internal material of the Department of Didactics of the IFI, FMFI Comenius University in Bratislava, 2021

JavaScript website

own electronic texts published on the website, resp. in the Moodle environment

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 23

A	В	С	D	Е	FX
65,22	8,7	8,7	4,35	4,35	8,7

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 23.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-349/15

Programming of Application for WEB

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 6.

Educational level: I., II.

Prerequisites: FMFI.KDMFI/1-UIN-355/10 - Introduction to Web Documents Formation or

FMFI.KDMFI/1-UIN-355/22 - Introduction to Web Documents Formation

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	В	С	D	Е	FX
36,84	5,26	21,05	26,32	5,26	5,26

Lecturers: PaedDr. Roman Hrušecký, PhD.

Last change: 30.11.2021

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-236/15

Programming of Application for WEB (2)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Intermediate assessment: practical assignments

Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The student will be able to create a more complex educational web application using databases, or other repositories and modern technologies for the development of dynamic web applications.

Class syllabus:

- HTML5 Canvas, Web Storage, Media, Drag&Drop
- AJAX manipulation of objects with their properties (also CSS), effects, event handling, efficient work with forms, etc.
- Two-way communication between server and client
- JQuery, JQueryUI, Vue.js, or other suitable framework

Recommended literature:

- own electronic texts published on the website or in the Moodle environment
- actual documentation for each technology
- w3schools.com

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 2

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: PaedDr. Roman Hrušecký, PhD.

Last change: 21.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-250/00

Propedeutics of Informatics Education (1)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: D, I., II.

Prerequisites: FMFI.KDMFI/1-UXX-134/19 - Theory of Teaching or FMFI.KDMFI/1-

UXX-134/18 - Theory of Teaching

Course requirements:

active participation in seminars and at least 50% of the semester

Continuous assessment: active participation in seminars (50%) and homework (30%)

Final test (20%)

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 80/20

Learning outcomes:

The student:

- knows the content and scope of the subject of informatics determined by the State Educational Program for various types and levels of schools
- will be able to design and evaluate curricula for the subject Informatics
- is able to identify the basic steps in creating the educational content of the lesson
- can interpret and evaluate available methodological materials
- acquires basic pedagogical habits

Class syllabus:

- Computer science teacher
- Informatics in other countries
- Curriculum analysis using Brunner's concept
- Phases of teaching in computer science teaching
- Educational goals of the subject of informatics at the 2nd level of elementary school and high school
- Educational goals of individual topics of informatics
- School curricula and curricula
- Project teaching
- Work with methodical materials
- Planning and implementation of evaluation in the subject of informatics

Recommended literature:

own electronic texts published

From educational program to teaching lesson / Marvin Pasch ... [et al.]; translated by Milan

Koldinský. Prague: Portal, 2005

Školní didaktika / Zdeněk Kalhous, Otto Obst ... [et al.]. Prague: Portal, 2002

Transformations of the school in the digital age / Ivan Kalaš and team. Bratislava: Slovenské

pedagogické nakladateľstvo - Mladé letá, 2013

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 166

A	В	С	D	Е	FX
78,92	6,02	6,63	3,61	0,6	4,22

Lecturers: Mgr. Karolína Miková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UIN-251/00

Propedeutics of Informatics Education (2)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: D, I., II.

Prerequisites: FMFI.KDMFI/1-UIN-250/00 - Propedeutics of Informatics Education (1)

Course requirements:

Interim evaluation: active participation in seminars (presentation of preparation (50%) and feedback (50%))

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The student will have experience in using theoretical knowledge in creating preparations for the lesson.

He will be able to critically evaluate the design and implementation of the lesson and express his opinion in the discussion.

The student will have built some basic pedagogical habits.

Class syllabus:

Course contents:

Students will create preparations for computer science lessons for the following topics:

Anti-virus and anti-spyware programs

Internet security and risks

Working with tables

Working with presentations

Working with graphics

Working with sound

Working with text

Working with a website

Encryption

Coding

Working with multimedia

Communication tools

Web search

In the form of a simulation, the lessons will test the preparations made and then discuss them.

Recommended literature:

From educational program to teaching lesson / Marvin Pasch ... [et al.]; translated by Milan Koldinský. Prague: Portal, 2005

Informatics for secondary schools: učebnica / Ivan Kalaš ... [et al.]. Bratislava: Slovenské pedagogické nakladateľstvo, 2005

Transformations of the school in the digital age / Ivan Kalaš and team. Bratislava: Slovenské pedagogické nakladateľstvo - Mladé letá, 2013

Work with graphics: thematic notebook for the 1st year of grammar schools, for the fifth of eight-year grammar schools / Ľubomír Salanci. Bratislava: Slovenské pedagogické nakladateľstvo, 2000

own electronic texts published on the website, resp. in the Moodle environment

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 143

A	В	С	D	Е	FX
76,92	6,99	2,8	2,8	3,5	6,99

Lecturers: Mgr. Karolína Miková, PhD.

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI-PriF.KDPP/1-

Psychology for Teachers (1)

UXX-141/15

Educational activities:

Type of activities: lecture / seminar

Number of hours:

per week: 2/2 per level/semester: 26/26

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 1.

Educational level: D, I., II.

Prerequisites:

Antirequisites: FMFI-PriF.KDPP/1-UXX-131/10

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 576

A	В	С	D	Е	FX
19,97	14,93	24,31	19,1	17,19	4,51

Lecturers: RNDr. Jana Ciceková, PhD., PhDr. ThLic. Peter Ikhardt, PhD.

Last change: 09.09.2019

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-142/15

Psychology for Teachers (2)

Educational activities:

Type of activities: lecture / seminar

Number of hours:

per week: 2 / 2 per level/semester: 26 / 26

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 2.

Educational level: D, I., II.

Prerequisites: FMFI-PriF.KDPP/1-UXX-141/15 - Psychology for Teachers (1)

Antirequisites: FMFI-PriF.KDPP/1-UXX-135/10

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 511

A	В	С	D	Е	FX
24,66	16,44	19,57	22,7	13,89	2,74

Lecturers: RNDr. Jana Ciceková, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-202/00 Robotics in Education (2) **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level: 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: 74 Α В \mathbf{C} D E FX 91,89 2,7 0,0 1,35 2,7 1,35 Lecturers: Mgr. Karolína Miková, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-161/00 Russian Language (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:

To master the fundamentals of general Russian. The language level is A1.

Learning the Cyrillic (Russian) alphabet, gaining basic language competence, building up skills and confidence in dealing with unfamiliar authentic and semi-authentic texts.

The subject provides a course in Russian language for beginners.

Recommended literature:

The textbook: : Точка Ру А1 (Ольга Долматова, Екатерина Новачац), pracovné karty Падежи 1 (Л.С. Безкоровайная, В.Е. Штыленко).

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 707

A	В	С	D	Е	FX
58,56	16,55	11,03	4,38	1,84	7,64

Lecturers: Viktoria Mirsalova

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-162/00 Russian Language (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:

To master the fundamentals of general Russian.

Learning the Cyrillic (Russian) alphabet, gaining basic language competence, building up skills and confidence in dealing with unfamiliar authentic and semi-authentic texts.

The subject continues the program of Russian language (1) and provides a course of Russian for beginners.

Recommended literature:

Textbook: Точка Ру А1 (Ольга Долматова, Екатерина Новачац), pracovné karty Падежи 1 (Л.С. Безкоровайная, В.Е. Штыленко).

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 421

L	A	В	С	D	Е	FX
	65,08	15,68	8,79	3,8	0,95	5,7

Lecturers: Viktoria Mirsalova

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-261/00 Russian Language (3)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:

Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.

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:

Точка Ру A2 (Ольга Долматова, Екатерина Новачац) a Short Stories in Russian (Olly Richards, Alex Rowlings)

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 200

A	В	С	D	Е	FX
70,5	17,5	8,5	2,5	0,0	1,0

Lecturers: Viktoria Mirsalova

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-262/00 Russian Language (4)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.

Class syllabus:

Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.

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:

Точка Ру А2 (Ольга Долматова, Екатерина Новачац) a Short Stories in Russian (Olly Richards, Alex Rowlings)

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 144

A	В	С	D	Е	FX
75,69	13,19	6,94	2,78	0,69	0,69

Lecturers: Viktoria Mirsalova

Last change: 20.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-331/18

School Management

Educational activities:

Type of activities: lecture / seminar

Number of hours:

per week: 1/2 per level/semester: 13/26

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 4.

Educational level: D, I., II.

Prerequisites:

Antirequisites: FMFI-Prif.KDPP/1-UXX-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: 112

A	В	С	D	Е	FX
53,57	13,39	25,0	3,57	0,0	4,46

Lecturers: Mgr. Karolína Miková, PhD., PaedDr. Tünde Kiss, PhD.

Last change: 10.01.2020

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-143/18 School Network Administration **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 5. Educational level:** II. **Prerequisites: Antirequisites:** FMFI.KDMFI/2-UIN-143/15 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 11 Α В C D Ε FX 90,91 0.0 0.0 9.09 0.0 0.0 Lecturers: Mgr. Miroslav Wagner Last change: Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KMANM/2-Selected Parts of Mathematical Analysis (1) UMA-111/15 **Educational activities:** Type of activities: course **Number of hours:** per week: 4 per level/semester: 52 Form of the course: on-site learning Number of credits: 4 **Recommended semester:** 4. **Educational level: 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: 120 \mathbf{C} D FX Ε 47,5 16.67 7,5 15.83 12,5 0.0 Lecturers: doc. RNDr. Ivan Kupka, CSc. Last change: 15.06.2022 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KMANM/2-Selected Parts of Mathematical Analysis (2) UMA-112/15 **Educational activities:** Type of activities: course **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 5. **Educational level: 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: 63 \mathbf{C} D FX Ε 90.48 7,94 1,59 0.0 0.0 0.0 Lecturers: doc. RNDr. Ivan Kupka, CSc. Last change: 15.06.2022 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UMA-263/15 Selected Topics in Algebra **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 6. **Educational level: 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 Α В \mathbf{C} D E FX 50,0 0,0 0,0 0,0 50,0 0,0Lecturers: Mgr. Martin Niepel, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG+KDMFI/2-Selected Topics in Teaching of Mathematics (1) UMA-283/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 2 Recommended semester: 4. **Educational level: 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: 89 \mathbf{C} D FX Ε 56.18 23.6 8.99 4.49 2,25 4.49 Lecturers: RNDr. Monika Dillingerová, PhD. Last change: 02.06.2015

Strana: 122

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID:** Course title: FMFI.KMANM/2-Seminar in History of Mathematics (1) UMA-211/15 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. Educational level: D, 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: 118 \mathbf{C} D Е FX 55.08 36,44 7.63 0.85 0.0 0.0 Lecturers: doc. RNDr. Zbyněk Kubáček, CSc. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KMANM/2-UMA-212/15 Seminar in History of Mathematics (2)

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 6.

Educational level: D, II.

Prerequisites:

Course requirements:

Ongoing evaluation: presentation of the prepared lesson (20 points), preparation of the written exam for other participants (10 points), active participation in the evaluation of presentations and written exams of other participants (30 points).

Grading: A (56-60 points), B (51-55 points), C (46-50 points), D (41-45 points), E (36-40 points), Fx (0-35 points).

Weight of the ongoing / final assessment: 100/0 Scale of assessment (preliminary/final): 100/0

Learning outcomes:

The student will gain an overview of the various periods of mathematics development, including examples of problems solved in individual basic works.

Class syllabus:

Students will choose from the following topics: Ptolemy. Apollonius. Chinese and Arabic mathematics. Fibonacci. Alcuin's problems. Cardano's Ars Magna. Pascal's Arithmetic Triangle. Huygens's De Ratiociniis in Ludo Aleae. Bernoulli's Ars Conjectandi. Cavalieri's Geometry of indivisibles. Euler's Introductio and Letters to a German Princess. Venn's Symbolic Logic.

Recommended literature:

Matematika v proměnách věků III / Editori Jindřich Bečvář, Eduard Fuchs. Praha : Výzkumné centrum pro dějiny vědy, 2004

Dějiny matematiky / Dirk J. Struik ; přeložili Jaroslav Folta, Luboš Nový. Praha : Orbis, 1963

Dějiny matematiky ve starověku / Arnošt Kolman. Praha: Academia, 1968

Dějiny matematiky ve středověku / Adolf P. Juškevič. Praha: Academia, 1977

Dejiny matematiky / Ján Čižmár. Bratislava: Perfekt, 2020

The history of mathematics / Roger L. Cooke. Hoboke, NJ: John Wiley, 2003 The history of mathematics / David M. Burton, New York: McGraw-Hill, 2011

Languages necessary to complete the course:

Slovak, English

Notes:						
Past grade distribution Total number of evaluated students: 116						
A	В	С	D	Е	FX	
90,52	8,62	0,0	0,86	0,0	0,0	
Lecturers: doc	. RNDr. Zbyněk I	Kubáček, CSc.				
Last change: 24.06.2022						
Approved by:						

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UMA-115/15 Set Theory **Educational activities:** Type of activities: course **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 4 **Recommended semester:** 6. **Educational level: II. Prerequisites: Course requirements:** Scale of assessment (preliminary/final): Semester 100% (homework assignments) **Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 102 \mathbf{C} Α В D E FX 63,73 14,71 13,73 3,92 3,92 0,0

Strana: 126

Lecturers: RNDr. Martin Sleziak, PhD.

Last change: 18.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-171/20 Slovak Language for Foreign Students (1)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Course requirements:

tests

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

This course is aimed for foreign students to learn the fundamentals of the Slovak language with the focus on basic communication as well as all other language skills- listening comprehension, reading and writing.

Class syllabus:

The sylabus is targeted at the comprehension of the basics of the Slovak language for the absolute beginners (A1).

Recommended literature:

Krížom- Krážom Slovenčina 1, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 23

A	В	С	D	Е	FX
47,83	0,0	0,0	0,0	0,0	52,17

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-172/20 | Slovak Language for Foreign Students (2)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

Course requirements:

tests

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

This course is aimed for foreign students to learn the fundamentals of the Slovak language with the focus on basic communication as well as all other language skills- listening comprehension, reading and writing.

Class syllabus:

The sylabus is targeted at the comprehension of the basics of the Slovak language for the absolute beginners (A1) and this course is a follow up course to the Slovak language course 1.

Recommended literature:

Krížom- Krážom Slovenčina 1, additional material to further support the covered topics

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 22

A	В	С	D	Е	FX
81,82	0,0	4,55	0,0	0,0	13,64

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

FMFI.KJP/1-MXX-271/20 Slovak Language for Foreign Students (3)

Course title:

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Course requirements:

tests

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

This course is aimed for foreign students to better comprehend all the language skills important to enable correct usage of the Slovak language – listening comprehension, reading, writing and speaking.

Class syllabus:

The sylabus is targeted at the comprehension of all the language skills of the Slovak language, and it is a follow up course to the Slovak language course 2.

Recommended literature:

Krížom-Krážom Slovenčina 2, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 8

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KJP/1-MXX-272/20 | Slovak Language for Foreign Students (4)

Educational activities:

Type of activities: practicals

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:

tests

Course prerequisites:

https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

This course is aimed for foreign students to better comprehend all the language skills important to enable correct usage of the Slovak language – listening comprehension, reading, writing and speaking.

Class syllabus:

The sylabus is targeted at the comprehension of all the language skills of the Slovak language, and it is a follow up course to the Slovak language course 3.

Recommended literature:

Krížom-Krážom Slovenčina 2, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 7

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-332/10

Social Aspects of Informatics

Educational activities:

Type of activities: seminar

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Antirequisites: FMFI.KDMFI/1-INF-175/00

Course requirements:

Continuous assessment: seminar work

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:

Class syllabus:

New ICT technologies are evolving very fast. But they are constantly entering our daily lives. We note what changes, what positive, but also what risks ICT brings in various areas: education, health, arts, business and finance, industry and others. We will pay special attention to the issue of copyright and its infringement and cybercrime.

Also what risks they bring.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 115

A	В	С	D	Е	FX
95,65	2,61	0,0	0,87	0,87	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 14.03.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KTV/2-MXX-115/17

Sports in Natur (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: II.

Prerequisites:

Course requirements:

Grades: A 90%, B 80%, C 70%, D 60%, E 50%

The condition for the award of 1 or 2 credits is the completion of a multi-day course in its full scope, or the completion of one-day courses in the scope of 4 days. Candidates can apply to the leaders of individual courses. From the presented offer of courses, you can choose the one that suits your interests, abilities and deadlines.

Learning outcomes:

Acquisition and development of basic motor skills and abilities in selected sports: skiing and snowboarding. Mastering the correct technique of performing individual movements, which are necessary for skiing and snowboarding.

Class syllabus:

The student can sign up for the outdoor sports courses offered by the department: skiing, snowboarding. The lessons in the courses are focused on the development of basic and special movement skills and mastering the techniques needed for the sports.

Recommended literature:

Languages necessary to complete the course:

Slovak

Notes:

KTVŠ does not rent ski equipment.

Past grade distribution

Total number of evaluated students: 83

A	В	С	D	Е	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. Júlia Raábová, PhD.

Last change: 16.06.2022	
Approved by:	

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KTV/2-MXX-116/18 | Sports in Natur (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: II.

Prerequisites:

Course requirements:

Grades: A 90%, B 80%, C 70%, D 60%, E 50%.

The condition for the award of 1 or 2 credits is the completion of a multi-day course in its full scope, or the completion of one-day courses in the scope of 4 days. Candidates can apply to the leaders of individual courses. From the presented offer of courses, you can choose the one that suits your interests, abilities and deadlines.

Learning outcomes:

Creating a positive and lasting relationship with physical activity. Acquisition and mastery of basic motor skills and abilities in outdoor sports: windsurfing, beach volleyball, water tourism - river rafting, hiking and other sports according to interest. Training and improving the technique needed for the sports.

Class syllabus:

The student can sign up for the outdoor sports courses offered by the department: water tourism - river rafting, windsurfing, beach volleyball, hiking and other hobby sports. The lessons in the courses are focused on the development of basic and special movement skills and, mastering the techniques needed for the sports.

Recommended literature:

Languages necessary to complete the course:

Slovak

Notes:

KTVŠ will provide sports equipment.

Past grade distribution

Total number of evaluated students: 50

A	В	С	D	Е	FX
94,0	0,0	0,0	0,0	0,0	6,0

Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký

Last change: 16.06.2022

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UXX-831/15

Teaching Practice in Computer Science (2)

Educational activities:

Type of activities: practice

Number of hours:

per week: per level/semester: 60s Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Presence in the school every day for 4-5 hours, totaling in per practice 60 teaching hours. Perform a minimum of 2 micro-performances in the trainee teacher's classes. Teach 4 lessons independently under the supervision of the trainee teacher. Evaluation will be based on the student's written outcomes and the faculty teacher's evaluation.

A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 80/20

Learning outcomes:

The student is more thoroughly familiar with the work of a teacher, focusing on the teacher's perspective on teaching and the running of a school. He/she has the experience of detailed written preparation for a lesson with independent teaching of the whole lesson and reflection on the lessons taught.

Class syllabus:

The content corresponds to the current topics taught during the internship at the school.

Recommended literature:

Literature recommended by the faculty teacher.

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 27

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 17.06.2022

Approved by:	
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Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UXX-832/15

Teaching Practice in Computer Science (3)

Educational activities:

Type of activities: practice

Number of hours:

per week: per level/semester: 90s Form of the course: on-site learning

Number of credits: 3

Recommended semester: 5.

Educational level: II.

Prerequisites:

Course requirements:

Be present in the school every day for 4-5 hours, totaling in per practice 90 teaching hours. To tutor 12 lessons independently on the basis of own written preparation under the supervision of a practising teacher. Evaluation will be based on the student's written outcomes, and the faculty teacher's evaluation.

A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 80/20

Learning outcomes:

The student will gain experience in conducting lessons that build on each other. The lessons taught will undergo detailed reflection. The student will become more familiar with the overall running of the school from the teacher's point of view.

Class syllabus:

The content corresponds to the current topics taught during the internship at the school.

Recommended literature:

Currently used primary and secondary school computer science textbooks and primary and secondary school collections of assignments

Literature recommended by faculty teachers.

Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution

Total number of evaluated students: 37

A	В	С	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 17.06.2022	
Approved by:	

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-841/15 Teaching Practice in Mathematics (2) **Educational activities:** Type of activities: practice **Number of hours:** per week: per level/semester: 60s Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level: 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: 129 Α В \mathbf{C} D E FX 98,45 0,78 0,78 0,0 0,0 0,0Lecturers: Mgr. Michaela Vargová, PhD. Last change: Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UXX-842/15 Teaching Practice in Mathematics (3) **Educational activities:** Type of activities: practice **Number of hours:** per week: per level/semester: 90s Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 5. **Educational level: 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: 108 Α В \mathbf{C} D E FX 94,44 1,85 0,0 3,7 0,0 0,0Lecturers: Mgr. Michaela Vargová, PhD. Last change: Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/2-UIN-101/15

Theoretical Computer Science (1)

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 3., 5.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: active participation in class, homework, tests

Exam: written work

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:

To introduce the issue of theoretical informatics, to acquaint students with classical and current areas of research, in which there are basic questions: Can all problems be solved algorithmically? How effective is the solution? What are the solution techniques?

After completing the course, students will know what a computational model is. On the computational model, the finite state machine (KA) will know what the calculation step is, the calculation, the accepting calculation. They will be able to show (prove) that a specific problem (language recognition) is solvable or. unsolvable at KA. Students will understand the definition of nondeterminism and its use in solving simple problems.

Students will be able to write simple programs for TS.

Class syllabus:

Brief introduction to the main areas of theoretical computer science:

Alphabets, Words, Languages and Algorithmic Problems

finite state machine (KA) calculation, configuration, calculation step, calculation, accepting and non - accepting calculation

Method of KA design: ad hoc and the need for proof of correctness resp. modular design

Existence of problems that are unsolvable at KA. Evidence of non-existence

Nondeterministic finite state machine (NKA), Configuration, calculation step, calculation, accepting and non-accepting calculation.

Equivalence of KA and NKA (subsoil construction)

Introduction to the computational model of the Turing machine

Recommended literature:

Languages necessary to complete the course:

Notes:						
Past grade distribution Total number of evaluated students: 23						
A	В	С	D	Е	FX	
65,22	21,74	8,7	4,35	0,0	0,0	
Lecturers: RNDr. Michal Winczer, PhD.						
Last change: 14.03.2022						
Approved by:						

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: Course title:

FMFI.KDMFI/2-UIN-102/15 | Theoretical Computer Science (2)

Educational activities:
Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

Educational level: II.

Prerequisites: FMFI.KDMFI/2-UIN-101/15 - Theoretical Computer Science (1) or FMFI.KAI +KDMFI/1-AIN-211/10 - Introduction to Theoretical Informatics or FMFI.KI/1-INF-215/14 - Formal Languages and Automata (1)

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	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Michal Winczer, PhD.

Last change: 02.06.2015

Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI/1-UXX-132/18

Theoretical Fundaments of Education

Educational activities:

Type of activities: lecture / seminar

Number of hours:

per week: 1 / 1 per level/semester: 13 / 13

Form of the course: on-site learning

Number of credits: 3

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Antirequisites: FMFI-Prif.KDPP/1-UXX-132/10

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 216

Α	В	С	D	Е	FX
34,72	34,26	18,98	8,33	1,39	2,31

Lecturers: Mgr. Lucia Budinská, PhD.

Last change: 15.09.2021

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/1-UXX-134/19 Theory of Teaching **Educational activities:** Type of activities: course **Number of hours:** per week: 3 per level/semester: 39 Form of the course: on-site learning Number of credits: 4 **Recommended semester: 3.** Educational level: D, I., II. **Prerequisites: Antirequisites:** FMFI.KDMFI/1-UXX-134/18 **Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 115 Α В C D Ε FX 46,09 25,22 11,3 7,83 5,22 4,35 Lecturers: Mgr. Karolína Miková, PhD. Last change: 01.09.2019

Strana: 146

Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KAG/2-UMA-265/15 Theory, Algorithms and Graphs Applications **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 6. **Educational level: 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: 6 C A В D E FX 0,0 0,0 0,0 66,67 33,33 0,0Lecturers: doc. RNDr. Martin Mačaj, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022 University: Comenius University Bratislava Faculty: Faculty of Mathematics, Physics and Informatics **Course ID: Course title:** FMFI.KDMFI/2-UIN-266/15 Web Design **Educational activities:** Type of activities: course **Number of hours:** per week: 2 per level/semester: 26 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level: 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: 3 \mathbf{C} Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: PaedDr. Roman Hrušecký, PhD. Last change: 02.06.2015 Approved by:

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:

Course title:

FMFI.KDMFI+KAI/2-

UIN-247/15

Web Technologies in Teaching

Educational activities:

Type of activities: course

Number of hours:

per week: 2 per level/semester: 26 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 5.

Educational level: II.

Prerequisites:

Course requirements:

Continuous assessment: active participation in class (15%), homework (25%), papers (25%),

project (35%)

Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

Learning outcomes:

Students will be familiar with different tools based on the latest web technologies, will be able to decide which of these tools are suitable for which learning activities and will be able to suggest different ways of using them in school practice.

Class syllabus:

- new interactive web tools overview, technological and pedagogical background, relation to learning theories
- blog, vlog, microblog
- collaborative editors and other tools, wikis
- podcasting, social bookmarking and tagging
- social networks
- tools for evaluating activities on the interactive web, peer-review, peer-assessment, self-assessment

Recommended literature:

- The teacher's own electronic study materials published on the course website or in the Moodle system
- Selection of recent publications in the field

Languages necessary to complete the course:

SLovak, English

Notes:

Past grade distribution					
Total number of evaluated students: 8					
A	В	С	D	Е	FX
87,5	0,0	12,5	0,0	0,0	0,0
The state of the s					

Lecturers: doc. RNDr. Zuzana Kubincová, PhD., doc. RNDr. Martin Homola, PhD.

Last change: 22.06.2022

Approved by: