Course descriptions

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STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KDMFI/2-pUIN-913/19	**Course title:** Didactics of Informatics
Number of credits: 0	
Educational level: D	
State exam syllabus:	
Last change: 03.12.2019	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022	

University: Comenius University Bratislava	

Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/2-UIN-219/10	**Course title:** 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: 3.

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	B	C	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:

COURSE DESCRIPTION

Academic year: 2021/2022	

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: FMFI.KDMFI/2-UIN-108/15	**Course title:** 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 • Ľubomír 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)
• Ľubomír 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	B	C	D	E	FX
75,0	22,73	2,27	0,0	0,0	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/2-UIN-109/15	**Course title:** 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	B	C	D	E	FX
60,0	10,0	12,5	5,0	7,5	5,0

Lecturers: doc. RNDr. Ľudmila Jašková, PhD.
Last change: 04.06.2021
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/2-pUIN-901/19	**Course title:** Diploma Thesis Project

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: 0

Recommended semester: 4.

Educational level: D

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 16

A	B	C	D	E	FX
87,5	0,0	0,0	0,0	12,5	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change:

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KAI/1-UXX-231/18	**Course title:** 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

A	B	C	D	E	FX
48,83	19,72	13,62	9,86	2,82	5,16

Lecturers: doc. RNDr. Martin Takáč, PhD.

Last change: 07.05.2018

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/1-UIN-341/15	**Course title:** 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	B	C	D	E	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:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/2-pUIN-002/15	**Course title:** 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

A	B	C	D	E	FX
72,73	13,64	4,55	0,0	4,55	4,55

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID: FMFI.KDMFI/1-UIN-250/00	**Course title:** 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: 3.

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	B	C	D	E	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:** |

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/1-UIN-251/00	**Course title:** 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: 4.

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	B	C	D	E	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:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	

Course ID: FMFI.KDMFI/2-pUINx-211/19	**Course title:** Teaching Practice

Educational activities:
  Type of activities: practice
  Number of hours:
    per week: per level/semester: 20s
  Form of the course: on-site learning, combined

Number of credits: 0

Recommended semester: 3.

Educational level: D

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
 Total number of evaluated students: 12

A	ABS	B	C	D	E	FX	NEABS
8,33	83,33	0,0	0,0	0,0	0,0	0,0	8,33

Lecturers: RNDr. Michal Winczer, PhD.

Last change:

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KDMFI/2-pUIN-914/19	**Course title:** Thesis Defence
Number of credits: 0	
Educational level: D	
State exam syllabus:	
Last change:	
Approved by:	