

Course descriptions

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COURSE DESCRIPTION

Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/2-UFY-256/15		Course title: Assessment of the Science Education Results			
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: D, II.					
Prerequisites:					
Course requirements: Continuous assessment: discussions (3x20 marks), presentation of the results of individual work (40 marks) Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if student scores less than 50%.					
Learning outcomes: The graduate will know the basic principles for creating goals of physics and science education for formal education and also the relationship between formal and non-formal education. They will know the basic ways of evaluating the results of physics and science education.					
Class syllabus: Objectives of education, Taxonomy of objectives. Educational methods and methods of measuring educational results at the class and school level. Nationwide testing. High stakes testing. International measurements in science education.					
Recommended literature:					
Languages necessary to complete the course: Slovenský a anglický.					
Notes:					
Past grade distribution Total number of evaluated students: 23					
A	B	C	D	E	FX
86,96	8,7	0,0	0,0	0,0	4,35
Lecturers: PaedDr. Lukáš Bartošovič, PhD.					
Last change: 18.06.2022					
Approved by:					

COURSE DESCRIPTION

Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/2-UXX-105/15		Course title: 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					
A	B	C	D	E	FX
95,38	1,54	3,08	0,0	0,0	0,0
Lecturers: doc. RNDr. Peter Demkanin, PhD., PaedDr. Tünde Kiss, 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.KDMFI/2- pUFY-961/19	Course title: Didactics of Physics
Number of credits: 0	
Educational level: D	
State exam syllabus:	
Last change: 29.11.2019	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/2-UFY-104/15		Course title: Didactics of Physics (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:					
Learning outcomes:					
Class syllabus:					
Recommended literature:					
Languages necessary to complete the course:					
Notes:					
Past grade distribution Total number of evaluated students: 59					
A	B	C	D	E	FX
59,32	30,51	8,47	0,0	0,0	1,69
Lecturers: doc. PaedDr. Viera Haverlíková, 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-UFY-106/15		Course title: Didactics of Physics (2)			
Educational activities: Type of activities: lecture / practicals 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: 4.					
Educational level: D, II.					
Prerequisites:					
Course requirements: Continuous assessment: seminar activities (4x10 marks) Exam: written (60 marks) Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if a student scores less than 50%.					
Learning outcomes: Graduates will have developed skills needed in creating a lesson in physics, choosing the goals of the lesson, ways and means of fulfilling these goals. They will also have developed personal qualities, support for the assertive behavior and communication skills of the future physics teacher.					
Class syllabus: From learning sequence, through the topic in teaching to the thematic unit. Objectives of teaching physics at primary and secondary school. Physics as a part of science education and as a part of technology basics. Specifics of teacher's work in non-formal education (physics circle, club, physical competitions), non-formal education of students outside school. Examples of teaching sequences and topics for analysis are mainly in the areas of electromagnetic induction, mechanical and electromagnetic waves, geometric and wave optics.					
Recommended literature:					
Languages necessary to complete the course: Slovak and English.					
Notes:					
Past grade distribution Total number of evaluated students: 55					
A	B	C	D	E	FX
69,09	21,82	5,45	1,82	1,82	0,0
Lecturers: doc. PaedDr. Viera Haverlíková, PhD.					

Last change: 18.06.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFLKDMFI/2- pUFY-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: 4					
A	B	C	D	E	FX
75,0	0,0	0,0	0,0	0,0	25,0
Lecturers: doc. RNDr. Peter Demkanin, 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.KDMFI/2-UFY-115/15		Course title: Methods for Solving Physics Problems			
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: 4.					
Educational level: D, II.					
Prerequisites:					
Course requirements: Continuous assessment: homeworks (4x10 marks), discussions (3x10 marks), tests (2x15 marks). Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Credits will not be awarded if a student scores less than 50%.					
Learning outcomes: The graduate will know several forms of physical problems, selected methods of assigning and solving physical problems and methods of evaluating students' solutions to physical problems. Will be able to actively use physics tasks in secondary school.					
Class syllabus: Physics task, physics problem. Assignment. The general plan of the process of solving. Modelling in solving a physical problem. Mathematization of the task situation. Graphic and numerical solution of the problem. Dynamic modelling method. Solution methods using computer programs and audiovisual means. Solution methods using the system of computer-assisted science laboratory Coach.					
Recommended literature:					
Languages necessary to complete the course: Slovak and English.					
Notes:					
Past grade distribution Total number of evaluated students: 59					
A	B	C	D	E	FX
89,83	6,78	3,39	0,0	0,0	0,0
Lecturers: doc. PaedDr. Klára Velmovská, PhD.					
Last change: 18.06.2022					
Approved by:					

COURSE DESCRIPTION

Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty: Faculty of Mathematics, Physics and Informatics					
Course ID: FMFI.KDMFI/2-UFY-111/15		Course title: Practical in Class Experiments in Physics (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, 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: 59					
A	B	C	D	E	FX
93,22	5,08	0,0	0,0	0,0	1,69
Lecturers: PaedDr. Peter Horváth, PhD., PaedDr. Jana Jakubičková, 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/1-UFY-320/15		Course title: School Experiments in Physics			
Educational activities: Type of activities: laboratory practicals 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, I.					
Prerequisites:					
Course requirements: Continuous assessment: tests (2x15 marks), assessment of individual work (2x15 marks) Exam: practical (20 marks), written (20 marks) Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%. Credits will not be awarded if a student scores less than 50%.					
Learning outcomes: Students will gain an overview of selected experiments conducted at secondary school. They will be able to carry out the experiments independently, explain them from a physics point of view and include them appropriately in the process of physics and science education.					
Class syllabus: Safety in the school laboratory. Demonstration experiments, frontal, work of students in a group. Experiments on the properties of substances, fluid statics, calorimetry, molecular physics, fluid dynamics, statics and dynamics of a rigid body, work, power, energy, kinematics, motion and force.					
Recommended literature:					
Languages necessary to complete the course: Slovak and English.					
Notes:					
Past grade distribution Total number of evaluated students: 47					
A	B	C	D	E	FX
51,06	19,15	21,28	4,26	2,13	2,13
Lecturers: doc. PaedDr. Klára Velmovská, PhD., PaedDr. Simona Gorčáková					
Last change: 18.06.2022					
Approved by:					

COURSE DESCRIPTION

Academic year: 2021/2022							
University: Comenius University Bratislava							
Faculty: Faculty of Mathematics, Physics and Informatics							
Course ID: FMFLKDMFI/2- pUFYx-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: 10							
A	ABS	B	C	D	E	FX	NEABS
20,0	80,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: PaedDr. Peter Horváth, 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: FMFLKDMFI/2- pUFY-911/19	Course title: Thesis Defence
Number of credits: 0	
Educational level: D	
State exam syllabus:	
Last change:	
Approved by:	