CONTENT

1. Academic English	3
2. Administration of OS.	5
3. Algebra and theoretical arithmetic	7
4. Application of ICT into mathematics teaching	8
5. Child and Adolescent Sociology	10
6. Class Management	11
7. Classical and quantum computations	12
8. Communicative Competence in English	14
9. Communicative Grammar in English	16
10. Communicative Grammar in German Language	17
11. Computational and cognitive neuroscience II	18
12. Computational complexity	20
13. Computer science and didactics of informatics	22
14. Continuous practice teaching I	23
15. Continuous practice teaching I	25
16. Continuous practice teaching II.	26
17. Continuous practice teaching II.	28
18. Creating Text Teaching Aids	29
19. Culture of Spoken Discourse	30
20. Defence of diploma thesis	31
21. Development and processing of multimedia	
22. Development and processing of multimedia	
23. Developmental Psychology for Teachers	
24. Didactics of informatics.	
25. Didactics of informatics.	40
26 Didactics of mathematics	43
27 Didactics of mathematics	45
28 Differential equations	47
29 Diploma Project I	49
30 Diploma Project II	50
31 Diploma Project III	51
32 Diploma project I	
33. Diploma project II	53
34 Diploma project III	55
35. Drug Addiction Prevention in Educational Practice	
36 Dynamic geometry	55
37 Educational Counselling	59
38 Essentials of Special Education	60
30 Experiential Education	00
40. Formal languages and automata	01 62
40. Format languages and automata	02
41. Geometry III	05
12. Geometry mi	05 67
4. Internet in education	07
44. Introduction into Development of Deligion	08
45. Introduction to computer graphics	/0
40. Introduction to computer graphics	12
47. Introduction to neural networks	13
40. Logic programming	/ ว

49.	Magister thesis and its defense	76
50.	Mathematical statistics	77
51.	Mathematics and didactics of mathematics	79
52.	Microcomputer Based Science Laboratory	80
53.	Mobbing, Violence and Their Prevention.	82
54.	Modern Didactical Technology	84
55.	Pedagogical Communication.	86
56.	Pedagogical Diagnostics	
57.	Pedagogy and Psychology	
58.	Pro-seminar to diploma thesis in informatics	91
59.	Problem and Aggressive Behaviour of Pupils. Etiology, Prevention and Intervention	92
60.	Professional Ethics for Teachers and School Counsellors	94
61.	Programming language C	
62.	Psychology and Educational Psychology	98
63.	Psychology of Creativity and Working with Gifted Students in Teacher Practice	100
64.	Psychology of Health	102
65.	Reading Literacy in Educational Process	104
66.	Running practice	105
67.	Scheduled practice teaching.	106
68.	Scheduled practice teaching	108
69.	Seaside Aerobic Exercise	109
70.	Selected topics on mathematical analysis	111
71.	Seminar on history of mathematics	113
72.	Seminar on school mathematics	115
73.	Seminar to diploma theses in informatics XI	116
74.	Seminar to diploma theses in informatics XI	118
75.	Slovak Language for Teachers	120
76.	Sports Activities I	122
77.	Sports Activities II	124
78.	Sports Activities III	126
79.	Sports Activities IV	128
80.	Student scientific conference	130
81.	Students scientific conference	131
82.	Summer Course-Rafting of TISA River	132
83.	Supervised Teaching Practice	134
84.	Survival Course	135
85.	Teaching Methodology and Pedagogy	137
86.	The Art of Aiding by Verbal Exchange	138
87.	The Fundamentals of Pedagogico-Psychological Research Methodology	140

University: P. J. Šafárik University in Košice								
Faculty: Faculty of Science								
Course ID: CJP/ PFAJAKA/07	Course ID: CJP/ PFAJAKA/07Course name: Academic English							
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present								
Number of ECT	S credits: 2							
Recommended	semester/trimes	ster of the cours	e:					
Course level: I.,	II., N							
Prerequisities:								
Combined method of teaching (classroom/distance) Active classroom participation, assignments handed in on time, 2 absences tolerated 1 test (10th week), no retake. (in classroom, in case of distance learning due to worsened epidemiological situation – online) Presentation on chosen topic (in case of distance learning - online thorugh MS Teams) Final evaluation- average assessment of test (40%), essay (30%) and presentation (30%). Grading scale: A 93 100% B 86 92% C 79 85% D 72 78% E 65 71% EX 64% and less								
Learning outcom	mes:							
Brief outline of	the course:							
Recommended literature: Seal B.: Academic Encounters, CUP, 2002 T. Armer :Cambridge English for Scientists, CUP 2011 M. McCarthy M., O'Dell F Academic Vocabulary in Use, CUP 2008 Zemach, D.E, Rumisek, L.A: Academic Writing, Macmillan 2005 Olsen, A. : Active Vocabulary, Pearson, 2013 www.bbclearningenglish.com								
Course languag English languag	Course language: English language, level B2 according to CEFR.							
Notes:								
Course assessment Total number of assessed students: 380								
A B C D E FX								
33.68	22.11	15.53	10.0	6.58	12.11			
Provides: Mgr. V	Viktória Mária S	llovenská						
Date of last mod	lification: 17.09	9.2020						

Approved:

University: P. J. Šafá	rik University in Košice						
Faculty: Faculty of Science							
Course ID: ÚINF/ AOS1/15	Course name: Administration of OS						
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent						
Number of ECTS cro	edits: 2						
Recommended seme	ster/trimester of the course: 1., 3.						
Course level: I., II.							
Prerequisities:							
Conditions for cours	e completion:						
Learning outcomes: To be able to install L several network dean	inux based system, divide disks, to know how to install, configure and manage nons.						
 Brief outline of the c 1. Introduction to net 2. SSH 3. Routing and NAT 4. Introduction to Fire 5. Advanced firewall 6. DHCP server 7. Web server (apaches) 8. Monitoring Server 9. Samba Server 10. Mail server (smtp) 11. Proxy server 12. Windows server 13. Windows Server 14. Introduction to Value 	ourse: work services ewall settings e, php, mysql) (SNMP, MRTG) o, imap, postfix) II. irtualization (Hyper-V OpenVZ) ture:						
1. Linux Documentat 2. Stanek, W.: Windo 3. Shah, S. Soyinka, 4. Nemeth, E., et al.:	ion Project, 4 updated edition. Brno: Computer Press (2008). ws Server 2012 Inside Out. Microsoft Press (2013) W. Administration Linux. Grade (2007) Linux. Brno: Computer Press (2008)						
Course language: Slovak or english							
Notes:							

Course assessment Total number of assessed students: 28								
A B C D E FX								
57.14	57.14 21.43 14.29 0.0 7.14 0.0							
Provides: RND	Provides: RNDr. JUDr. Pavol Sokol, PhD., RNDr. Tomáš Bajtoš							
Date of last modification: 10.02.2021								
Approved:								

Faculty: Faculty of Science Course ID: ÚMV/ ATA/14 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present Number of ECTS credits: 4 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol:. Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementárni aritmetika. Přírodovědecké vydavatelství, Praha 1983 K. Hruša: Elementárni aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Vařava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX 5.56 2.4.07	University: P. J. Šafárik University in Košice								
Course ID: ÚMV/ ATA/14 Course name: Algebra and theoretical arithmetic ATA/14 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present Number of ECTS credits: 4 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Pfiródovádecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Vařšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 D E A B C D E A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. D E	Faculty: Faculty of	Faculty: Faculty of Science							
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present Number of ECTS credits: 4 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. dil. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course assessment Total number of assessed students: 54 A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr.	Course ID: ÚMV/ ATA/14Course name: Algebra and theoretical arithmetic								
Number of ECTS credits: 4 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C A B C A B C A B C A B C A B C A B C	Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present								
Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blażek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX A B C D E FX Sisof 24.07 12.96 7.41	Number of ECTS	credits: 4							
Course level: II. Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovédecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A A A A C E FX Solovak Notes: <td col<="" td=""><td>Recommended ser</td><td>nester/trimes</td><td>ster of the cours</td><td>e: 3.</td><td></td><td></td></td>	<td>Recommended ser</td> <td>nester/trimes</td> <td>ster of the cours</td> <td>e: 3.</td> <td></td> <td></td>	Recommended ser	nester/trimes	ster of the cours	e: 3.				
Prerequisities: Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX S5.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018	Course level: II.								
Conditions for course completion: It is based on the results of written and oral exam. Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harmine, CSc. Date of last modification: 06.03.2018	Prerequisities:								
Learning outcomes: Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them. Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Cal number of assessed students: 54 A B C A B C A B C A B C A B C S5.56 24.07 12.96 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018	Conditions for cou It is based on the re	irse completi esults of writt	on: en and oral exam						
Brief outline of the course: Sets of numbers N, Z, Q a R, their axiomatical building, operations and ordering. Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harmine, CSc. Date of last modification: 06.03.2018	Learning outcome Obtain knowledge the orderigs on the	es: about sets N, m.	Z, Q and R, abou	it their axiomati	ic building-up, the	e operations and			
Recommended literature: J. Blažek a kol.: Algebra a teoretická aritmetika I. díl. SPN, Praha 1983 K. Hruša: Elementární aritmetika. Přírodovědecké vydavatelství, Praha 1953 W. Sierpinski: Arytmetyka teoretyczna. PWN, Varšava 1966 T. Šalát a kol.: Algebra a teoretická aritmetika (2). Alfa, Bratislava - SNTL Praha 1986 Course language: Slovak Notes: Course assessment Total number of assessed students: 54 A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018	Brief outline of the Sets of numbers N	e course: , Z, Q a R, the	eir axiomatical bu	uilding, operatio	ons and ordering.				
Course language: Slovak Notes: Course assessment Total number of assessed students: 54 FX A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018 Date of last modification: 06.03.2018	Recommended lite J. Blažek a kol.: A K. Hruša: Element W. Sierpinski: Ary T. Šalát a kol.: Alg	e rature: lgebra a teore ární aritmetik tmetyka teore gebra a teoretic	tická aritmetika I a. Přírodovědeck tyczna. PWN, Va cká aritmetika (2)	. díl. SPN, Prah é vydavatelství, ıršava 1966). Alfa, Bratisla	a 1983 Praha 1953 va - SNTL Praha	1986			
Notes:Course assessmentTotal number of assessed students: 54ABCDEFX55.5624.0712.967.410.00.0Provides: doc. RNDr. Matúš Harminc, CSc.Date of last modification: 06.03.2018	Course language: Slovak								
Course assessment Total number of assessed students: 54ABCDEFX55.5624.0712.967.410.00.0Provides: doc. RNDr. Matúš Harmine, CSc.Date of last modification: 06.03.2018	Notes:								
A B C D E FX 55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018 E FX	Course assessment Total number of assessed students: 54								
55.56 24.07 12.96 7.41 0.0 0.0 Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018 0.0 0.0 0.0	A B C D E FX								
Provides: doc. RNDr. Matúš Harminc, CSc. Date of last modification: 06.03.2018	55.56 24.07 12.96 7.41 0.0 0.0								
Date of last modification: 06.03.2018	Provides: doc. RNDr. Matúš Harminc, CSc.								
	Date of last modif	ication: 06.03	3.2018						
Approved:	Approved:								

	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚMV/ AIM/10	Course name: Application of ICT into mathematics teaching
Course type, scope a Course type: Practi Recommended cou Per week: 2 Per stu Course method: pre	and the method: ce rse-load (hours): ady period: 28 esent
Number of ECTS cr	edits: 2
Recommended seme	ster/trimester of the course: 3.
Course level: II.	
Prerequisities: ÚMV	//DDMa/14
Conditions for cours two tests elaborated of final project	se completion: on the computer, solving problems from worksheets
Learning outcomes: To learn students star and to provide examp teaching. To develop digital environment to of students allow to technologies.	ndard work procedures with the basic types of mathematical softvare systems bles and ideas on the possibility of using these software systems in mathematics the knowledge and skills of students to use investigation and modelling in the for mathematical problems solving. Develop creative and evaluation abilities prepare mathematics lessons with effective and meaningful use of modern
Brief outline of the of Possibilities of using Use of dynamic geo implementation of c and solving of probl knowledge in mathem	numerical and graphical tools of spreadsheet to solve mathematical problems. metry systems in solving geometry problems, examples of their use in the onstructivist approaches to mathematics teaching. Mathematical modelling ems in a CAS environment. The use of modern IT for active acquisition of matics teaching.
Recommended litera M. Černochová et al. S. Lukáč: Multimédi	ature: : Využití počítače při vyučování, Portál, 1998. á a počítačom podporované učenie sa v matematike, PF UPJŠ Košice 2001.

J. Vaníček: Počítačové kognitivní technologie ve výuce geometrie. Univerzita Karlova v Praze, 2009.

Journals MFI, MIF a Obzory matematiky, fyziky a informatiky.

Course language:

Slovak

Notes:

Course assessment Total number of assessed students: 154							
A B C D E FX							
41.56	30.52	12.99	9.74	5.19	0.0		
Provides: doc. RNDr. Stanislav Lukáč, PhD.							
Date of last modification: 03.05.2015							
Approved:							

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	Faculty: Faculty of Science						
Course ID: KPO/ Course name: Child and Adolescent Sociology SDaM/15 Course name: Child and Adolescent Sociology							
Course type, sc Course type: I Recommended Per week: 2 Pe Course metho	ope and the met Lecture d course-load (h er study period: d: present	thod: ours): 28					
Number of EC	FS credits: 2						
Recommended	semester/trimes	ster of the cours	e: 3.				
Course level: II							
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	omes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Notes:							
Course assessm Total number of	ent f assessed studen	ts: 867					
А	В	С	D	Е	FX		
49.83 29.87 15.34 3.34 1.27 0.35							
Provides: Mgr.	Alexander Onufi	rák, PhD.	<u>I</u>	1	1		
Date of last mo	dification: 15.06	5.2021					
Approved:							

University: P. J.	Šafárik Univers	ity in Košice				
Faculty: Faculty	of Science					
Course ID: KPE MT/09	E/ Course na	me: Class Mana	gement			
Course type, sco Course type: P Recommended Per week: 2 Pe Course method	ppe and the met ractice course-load (h r study period: l: present	hod: ours): 28				
Number of ECI	S credits: 2					
Recommended	semester/trimes	ter of the cours	e: 2.			
Course level: II.						
Prerequisities:						
Conditions for a	course completi	on:				
Learning outco	mes:					
Brief outline of	the course:					
Recommended	literature:					
Course languag	e:					
Notes:						
Course assessm Total number of	ent assessed studen	ts: 514				
А	В	С	D	Е	FX	
53.89 34.24 8.75 1.56 0.58 0.97						
Provides: doc. P	aedDr. Renáta C	Prosová, PhD.			<u> </u>	
Date of last mod	lification: 08.06	.2021				
Approved:						

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚINF/ KKV1/15	Course name: Classical and quantum computations
Course type, scope a Course type: Lectur Recommended cour Per week: 3 / 1 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 42 / 14 esent
Number of ECTS cro	edits: 6
Recommended seme	ster/trimester of the course: 1., 3.
Course level: II.	
Prerequisities:	
Conditions for cours Written work Writen and oral exam	e completion:
Learning outcomes: To provide informati and quantum models	on on quantum computer and quantum computations. To compare classical and methods.
Brief outline of the c The basics of class algorithms, probabilit an algorithm. Introd superoperators), univ factoring algorithm, a quantum analogue of	ourse: ical theory of computation: Turing machines, Boolean circuits, parallel istic computation, NP-complete problems, and the idea of complexity of uction of general quantum formalism (pure states, density matrices, and versal gate sets and approximation theorems. Grover's algorithm, Shor's and the Abelian hidden subgroup problem. Parallel quantum computation, a 'NP-completeness, and quantum error-correcting codes.
Recommended litera 1. BERMAN,G.P., D Quantum Computers 2. GRUSKA, J. Quar 3. JOHNSON, G. A S 4. KITAEV, A.Y., SH Mathematical Society 5. NIELSEN, M.A., O Cambridge University 6. HIRVENSALO, M	Advances of the second
Course language:	
Notes:	

Course assessment Total number of assessed students: 136							
A B C D E FX							
25.0	35.29	13.97	12.5	6.62	6.62		
Provides: prof. RNDr. Gabriel Semanišin, PhD., RNDr. Zuzana Bednárová, PhD.							
Date of last modification: 03.05.2015							
Approved:	Approved:						

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: CJP/ PFAJKKA/07	Course name: Communicative Competence in English					
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: con	nd the method: ce rse-load (hours): dy period: 28 mbined, present					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the course:					
Course level: I., II., N	٦					
Prerequisities:						
Conditions for cours Active participation i two classes at the mo Online teaching (MS 2 credit tests (presum The tests will be take classes. The presentation will	be completion: In class and completed homework assignments. Students are allowed to miss st. Teams), in case of an improved epidemiological situation = on-site teaching. Hably in weeks 6/7 and 12/13) and a short oral presentation in English. En online (MS Teams) during online teaching and in class in case of on-site be sent to the course instructor as a video recording.					

Final evaluation consists of the scores obtained for the 2 tests (70%) and the presentation (30%). Final grade will be calculated as follows: A 93-100 %, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64 % and less.

Learning outcomes:

Uplatnenie a aktívne používanie svojich teoretických vedomostí v praktických komunikačných situáciách. Zdokonalenie jazykových vedomostí a zručností študenta, rečovej, pragmatickej a vecnej kompetencie, predovšetkým zlepšujú komunikáciu, schopnosť prijímať a formulovať výpovede, efektívne vyjadrovať svoje myšlienky ako aj orientovať sa v obsahovom pláne výpovede. Precvičovanie rečových intencií kontaktných (napr. pozdravy, oslovenia, pozvanie, oslovenie), informatívnych (napr. získavanie a podávanie informácií, vyjadrenie priestorových a časových vzťahov), regulačných (napr. prosba, poďakovanie, zákaz, pochvala, súhlas, nesúhlas) a hodnotiacich (napr. vyjadrenie vlastného názoru, stanoviska, želania, emócií). Výsledkom budovania praktickej jazykovej kompetencie majú byť vedomosti a zručnosti zodpovedajúce požiadavkám a kritériám dokumentu Spoločný európsky referenčný rámec pre vyučovanie jazykov.

Brief outline of the course:

Rodina, jej formy a problémy Vyjadrovanie pocitov a dojmov Dom, bývanie a budúcnosť Formy a dialekty v anglickom jazyku Život v meste a na vidieku Kolokácie a idiomy, zaužívané slovné spojenia Prázdniny a sviatky vo svete

Životné prostredie	Životné prostredie a ekológia					
Výnimky zo slove	Výnimky zo slovosledu					
Frázové slovesá a	a ich použitie					
Charakteristiky no	eformálneho di	škurzu				
Recommended literature: www.bbclearningenglish.com McCarthy M., O'Dell F.: English Vocabulary in Use, Upper-Intermediate. CUP, 1994. Misztal M.: Thematic Vocabulary. SPN, 1998. Fictumova J., Ceccarelli J., Long T.: Angličtina, konverzace pro pokročilé. Barrister and Principal, 2008. Peters S., Gráf T.: Time to practise. Polyglot, 2007. Jones L.: Communicative Grammar Practice. CUP, 1985. Alexander L.G.: Longman English Grammar. Longman, 1988.						
Course language: English language, B2 level according to CEFR						
Notes:						
Course assessment Total number of assessed students: 260						
А	В	С	D	Е	FX	
40.38	40.38 22.31 18.85 8.85 6.54 3.08					
Provides: Mgr. Barbara Mitríková, Mgr. Zuzana Naďová						
Date of last modification: 11.02.2021						
Approved:						

University: P. J. Ša	University: P. J. Šafárik University in Košice						
Faculty: Faculty o	Faculty: Faculty of Science						
Course ID: CJP/ PFAJGA/07	Course name: Communicative Grammar in English						
Course type, scop Course type: Prac Recommended co Per week: 2 Per s Course method:	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present						
Number of ECTS	credits: 2						
Recommended ser	mester/trimes	ster of the cours	e:				
Course level: I., II	., N						
Prerequisities:							
Conditions for con Active classroom week), no retake. 86-92%, C 79-85%	participation Final evaluat 6, D 72-78%,	on: (max. 2x90 min. ion- average ass E 65-71%, FX 64	absences tolera essment of tests 4% and less.	ated). 2 test (5th/o s. Grading scale:	6th and 12/13th A 93-100%, B		
Learning outcome	ès:						
Brief outline of th	e course:						
Recommended lite Vince M.: Macmil McCarthy, O'Dell: C. Oxengen, C. La Misztal M.: Thema www.bbclearninge ted.com/talks	erature: lan Grammar English Voca tham-Koenig atic Vocabular english.com	in Context, Macr bulary in Use, Cu New English Fi ry, Fragment, 199	nillan, 2008 UP, 1994 le Advanced, O 8	xford 2010			
Course language:							
Notes:							
Course assessment Total number of assessed students: 406							
A	В	С	D	Е	FX		
39.66	18.97	16.75	8.62	5.91	10.1		
Provides: Mgr. Let	nka Klimčáko	vá		·			
Date of last modif	ication: 14.09	9.2019					
Approved:							

University: P. J.	Šafárik Univers	sity in Košice				
Faculty: Faculty	of Science					
Course ID: KGE NJKG/07	ER/ Course na	R/ Course name: Communicative Grammar in German Language				
Course type, sco Course type: P Recommended Per week: 2 Pe Course method	ope and the me ractice course-load (h r study period: l: present	thod: ours): 28				
Number of ECT	S credits: 2					
Recommended s	semester/trimes	ster of the cours	e:			
Course level: I.,	II					
Prerequisities:						
Conditions for c	course completi	ion:				
Learning outcom	mes:					
Brief outline of	the course:					
Recommended I	literature:					
Course language	e:					
Notes:						
Course assessme Total number of	ent assessed studen	its: 54				
A	В	С	D	E	FX	
59.26	59.26 11.11 9.26 3.7 9.26 7.41					
Provides: Mgr. Blanka Jenčíková						
Date of last mod	lification: 03.05	5.2015				
Approved:						

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚINF/ VKN/15	Course name: Computational and cognitive neuroscience II
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 28 esent
Number of ECTS cr	edits: 5
Recommended seme	ster/trimester of the course:
Course level: II.	
Prerequisities:	
Conditions for cours Midterm exam Final exam consisting	e completion: g of written and/or oral part
Learning outcomes: Advanced topics in neuroscience.	computational and cognitive neuroscience, and in the tools used in
Brief outline of the c 1. Intro: Cognitive ps Theme 1: Topics in c 2. Neural basis of vis 3. Visual object recog 4. Auditory cognition 5. Cortical sound pro 6. Other topics in the Topic 2: Modeling in 7. Intro 8. Connectionism, ST 9. Additive and shund 10. Learning rule Our 11. Adaptive resonan 12. Statistical and dea Topic 3: Current rese 13. Invited lecture	ourse: ychology, neural modeling. ognitive and neural science ion gnition and visual scene analysis t. Echo suppression. Auditory scene analysis cessing. study of brain and main: thinking, consciousness, emotions, motivation cognitive and neural science "M and LTM modeling ting neural networks. tstar. ce theory. cision-theory modeling arch at UPJS
Recommended litera 1. KANDEL, E. R., S McGraw-Hill, 2021 I 2. Dayan P and LF A Modeling of Neural S 3. Thagard P: Mind: 978-0262701099	ture: SCHWARTZ, J. H. and JESSELL, T.M.: Principles of Neural Science. SBN-13: 978-1259642234 bbott: Theoretical Neuroscience - Computational and Mathematical Systems. MIT Press, 2005 ISBN-13: 978-0262541855 Introduction to Cognitive Science, 2nd Edition. Bradford Books. ISBN-13 :

4. HERTZ, J., KROGH, A. and PALMER R. G.: Introduction to the theory of neural computation. Addison-Wesley 1991 ISBN-13: 978-0201515602

Course language:

Slovak or English

Notes:

Content prerequisites:

basics of neurobiology, cognitive psychology, linear algebra and differential equations, programing, or instructor's consent

Course assessment

Total number of assessed students: 8

А	В	С	D	Е	FX
50.0	12.5	25.0	12.5	0.0	0.0

Provides: doc. Ing. Norbert Kopčo, PhD.

Date of last modification: 08.07.2021

Approved:

Faculty: Faculty of Science Course ID: ÚINF/ Course name: Computational complexity VYZ1/15 Course and the method:
Course ID: ÚINF/ VYZ1/15 Course name: Computational complexity Course type, scope and the method:
Course type, scope and the method:
Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present
Number of ECTS credits: 4
Recommended semester/trimester of the course: 3.
Course level: II.
Prerequisities:
Conditions for course completion: Oral examination.
Learning outcomes: To give the students the theoretical background in computational complexity and theory of N completeness.
 I: Introduction: the notion of computational complexity, computational time, computational models example - the problem of sorting, computational complexity as an asymptotic function Basic computational models: RAM and RASP computers, the cost of an elementary step these computers, single-tape Turing machine, multi-tape Turing machine, nondeterministic varia of these computational models, transformations among these models with respect to the tin complexity The classes P and NP: basic definitions, presenting (un)undirected graphs on the input, 3CC – the set of all 3-colorable graphs is in NP, 2COL - the set of all 2-colorable graphs is in P, S. – the set of satisfiable Boolean formulas is in NP, CNF-SAT - Boolean formulas in conjunctin normal form Variants of P and NP: decision problem, the problem of finding a solution, optimization proble polynomial conversions among different variants NP-completeness: reducibility in polynomial time and its transitivity, definition of the N completeness of SAT Variants of SAT: 3CNF-SAT - satisfiability of Boolean formulas in 3-conjunctive normal for kCNF-SAT, CNF-SAT - satisfiability in k-conjunctive (conjunctive) normal form, 2CNF-SAT in P 3COL and its variants: 3COL (the problem of coloring vertices of a graph with 3 colors) NP-complete, consequently: for each k>3, kCOL (the problem of coloring with k colors) is N complete as well Colorability of a planar graph with three colors: presenting a planar graph on the input, the pro of NP-completeness, coloring with a larger number of colors

11: Hamiltonian path: Hamiltonian path in a directed and in undirected graph

12: Subset-sum-like problems: Subset Sum - the problem of whether any subset of the integers sum to precisely a target sum, Partition - the problem of whether a given multiset of positive integers can be partitioned into two subsets with equal sums, a "more relaxed" version of Partition - achieving an approximate equality of the sums, distribution of tasks among K parallel processors

13: Beyond P a NP: a review of the basic complexity classes - L, NL, P, NP, PSpace, NPSpace, ExpTime, NExpTime, ..., simulation of (non)deterministic space in (non)deterministic time, conversions in opposite directions

14: PSpace: QBF - true quantified Boolean formulas, prenex normal form, Pspace completeness of QBF, PSpace = NPSpace

Recommended literature:

1. J.E. Hopcroft, R.Motwani, J.D. Ullman: Introduction to automata theory, languages, and computation, Addison-Wesley, 2007.

2. M. Sipser: Introduction to the Theory of Computation, Thomson, 2nd edition, 2006.

3. L.A.Hemaspaandra, M.Ogihara: Complexity theory companion, EATCS series, texts in computer science, Springer-Verlag, 2002.

4. S. Arora, B. Barak: Computational Complexity: A Modern Approach, Cambridge Univ. Pess, 2009. 5. G.Brassard, P.Bradley: Fundamentals of algorithmics, Prentice Hall, 1996.

6. D.P.Bovet, P.Crescenzi: Introduction to the theory of complexity, Prentice Hall, 1994.

7. C. Calude and J. Hromkovič: Complexity: A Language-Theoretic Point of View, in G.

Rozenberg and A. Salomaa, Handbook of Formal Languages II, Springer, 1997.

Course language:

Slovak or english

Notes:

Content prerequisities:

Basic notions from the theory of automata and formal languages.

Basic skills in programming and design of algorithms (in any programming language). Basics knowledge in mathematical logic, set theory, and graph theory.

Course assessment

Total number of assessed students: 335

А	В	С	D	Е	FX
57.61	15.52	11.94	7.16	7.46	0.3

Provides: prof. RNDr. Viliam Geffert, DrSc.

Date of last modification: 17.08.2021

Approved:

University: P. J.	. Šafárik Univers	ity in Košice			
Faculty: Faculty	y of Science				
Course ID: ÚIN MSSUI/15	NF/ Course na	Course name: Computer science and didactics of informatics			
Course type, sc Course type: Recommended Per week: Per Course metho	ope and the met d course-load (h r study period: d: present	thod: ours):			
Number of EC	FS credits: 1				
Recommended	semester/trimes	ster of the cours	e:		
Course level: II	•				
Prerequisities: leboÚINF/KKV	ÚINF/DIN1b/15 1/21 and leboÚI	,ÚINF/TIK1/15, NF/UNS1/15 and	(ÚINF/UGR1/15 1 leboÚINF/FO1	and leboÚINF/k /15)	KKV1/15 and
Conditions for	course completi	on:			
Learning outco	mes:				
Brief outline of	the course:				
Recommended	literature:				
Course languag	ge:				
Notes:					
Course assessm Total number of	ent f assessed studen	ts: 14			
А	В	С	D	Е	FX
42.86	21.43	21.43	7.14	7.14	0.0
Provides:					
Date of last modification: 24.04.2017					
Approved:					

University: P. J. Šafán	rik University in Košice					
Faculty: Faculty of Science						
Course ID: ÚINF/ MPPc/15	F/ Course name: Continuous practice teaching I					
Course type, scope an Course type: Practic Recommended cour Per week: Per stud Course method: pre	nd the method: ce rse-load (hours): y period: 4t sent					
Number of ECTS cre	edits: 2					
Recommended semes	ster/trimester of the course: 3.					
Course level: II.						
Prerequisities: ÚINF	/MPPb/15					
Conditions for course Conditions for ongoin 1. Observations in 6 h 2. Independent leadin 3. Participation in ana 4. Active participation Conditions for the fin 1. Submission of 6 ob 2. Submission of a lis 4. Submission of a lis 4. Submission of a rep 6. Submission of a fee Conditions for succes Fulfillment of all ong	e completion: ng evaluation: essons of the subject of informatics. g of 18 lessons of the subject informatics. hlyzes from 20 lessons with a teacher trainer. n in out-of-class and after-school activities. al evaluation: oservation records from lessons. esson projects of preparation for lessons. t of observations and own lesson of the trainee. valuation of the trainee's teaching practice. port on the continuous pedagogical practice. edback sheet from the continuous pedagogical practice. sful completion of the course: oing and final assignments.					
Learning outcomes: Under the professiona pedagogical skills in of-class and after-sch	al supervision of an experienced teacher trainer, the student acquires practical teaching the subject of informatics. He gets acquainted with school life, out- ool activities activities.					
Brief outline of the co Observations of teach aids, leading own less out-of-class and after-	ourse: er trainer lessons, consultations of lesson preparations, preparation of teaching sons, methodological and scientific analysis of lessons, active participation in -school activities.					

Recommended literature:

KOSOVÁ, Beata, Alena TOMENGOVÁ et al., 2015. Profesijná praktická príprava budúcich učiteľov [online]. Banská Bystrica: Vydavateľstvo Belianum, Univerzita Mateja Bela, Banská Bystrica, 226 pp. [cited. 2021-7-28]. ISBN 978-80-557-0860-7. Available from: https://publikacie.umb.sk/publication/publicationFileDownload.php?ID=18667

OROSOVÁ, Renáta and Zuzana BOBEROVÁ, 2016. Pregraduálna príprava učiteľov: Organizácia pedagogickej praxe na UPJŠ [online]. Košice: Univerzita Pavla Jozefa Šafárika

v Košiciach, 142 pp. [cited 2021-7-28]. ISBN 978-80-8152-460-8. Available from: https:// unibook.upjs.sk/sk/pedagogika/342-pregradualna-priprava-ucitelov-organizacia-pedagogickej- praxe-na-upjs BOBEROVÁ, Zuzana, 2017. Začínajúci učiteľ a školská legislatíva I. [online]. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 104 pp. [cited 2021-7-28]. ISBN 978-80-8152-490-5. Available from: https://unibook.upjs.sk/sk/pedagogika/398-zacinajuci-ucitel- a-skolska-legislativa-i				
Slovak				
Notes: By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.				
Course assessment Total number of assessed students: 13				
abs	n			
100.0 0.0				
Provides: doc. RNDr. Ľubomír Šnajder, PhD.				
Date of last modification: 04.08.2021				
Approved:				

University: P. J. Šafá	rik University in K	ošice				
Faculty: Faculty of S	cience					
Course ID: ÚMV/ VSPc/15	Course name: Co	Course name: Continuous practice teaching I				
Course type, scope a Course type: Practic Recommended cour Per week: Per stud Course method: pre	nd the method: ce rse-load (hours): ly period: 4t esent					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of t	ie course: 3.				
Course level: II.						
Prerequisities: ÚMV	/VPPb/15					
Conditions for cours	se completion:					
Learning outcomes: Enable students to g knowledge in specific the atmosphere and the	ain first practical of teaching situations he organization of s	experience in teaching mathematics to apply theoretical , to develop their teaching skills. To acquaint students with chool.				
Brief outline of the c	ourse:					
Recommended litera	ature:					
Course language: Slovak						
Notes:						
Course assessment Total number of asse	ssed students: 62					
	abs	n				
100.0 0.0						
Provides: doc. RNDr	: Dušan Šveda, CSo	., doc. RNDr. Ingrid Semanišinová, PhD.				
Date of last modifica	ition: 03.05.2015					
Approved:						

Faculty: Faculty of S Course ID: ÚINF/ MPPd/15 Course type, scope a	cience Course name: Continuous practice teaching II
Course ID: ÚINF/ MPPd/15 Course type, scope a	Course name: Continuous practice teaching II
Course type, scope a	
Course type: Practic Recommended cour Per week: Per stud Course method: pre	nd the method: ce rse-load (hours): ly period: 6t esent
Number of ECTS cr	edits: 2
Recommended seme	ster/trimester of the course: 4.
Course level: II.	
Prerequisities: ÚINF	/MPPc/15
 Observations in 8 1 Independent leading Participation in and Active participation Conditions for the fire Submission of 8 of Submission of 30 1 Submission of a list Submission of a re Submission of a fee Submission of a fee Conditions for succes Fulfillment of all ong 	lessons of the subject of informatics. ag of 30 lessons of the subject informatics. alyzes from 30 lessons with a teacher trainer. n in out-of-class and after-school activities. hal evaluation: oservation records from lessons. esson projects of preparation for lessons. est of observations and own lesson of the trainee. evaluation of the trainee's teaching practice. port on the continuous pedagogical practice. edback sheet from the continuous pedagogical practice. essful completion of the course: going and final assignments.
Learning outcomes: Under the profession pedagogical skills in of-class and after-sch	al supervision of an experienced teacher trainer, the student acquires practical teaching the subject of informatics. He gets acquainted with school life, out- tool activities activities.
Brief outline of the c Observations of teach aids, leading own less out-of-class and after	ourse: her trainer lessons, consultations of lesson preparations, preparation of teaching sons, methodological and scientific analysis of lessons, active participation in r-school activities.

KOSOVÁ, Beata, Alena TOMENGOVÁ et al., 2015. Profesijná praktická príprava budúcich učiteľov [online]. Banská Bystrica: Vydavateľstvo Belianum, Univerzita Mateja Bela, Banská Bystrica, 226 pp. [cited. 2021-7-28]. ISBN 978-80-557-0860-7. Available from: https://publikacie.umb.sk/publication/publicationFileDownload.php?ID=18667

OROSOVÁ, Renáta and Zuzana BOBEROVÁ, 2016. Pregraduálna príprava učiteľov: Organizácia pedagogickej praxe na UPJŠ [online]. Košice: Univerzita Pavla Jozefa Šafárika

v Košiciach, 142 pp. [cited 2021-7-28]. ISBN 978-80-8152-460-8. Available from: https:// unibook.upjs.sk/sk/pedagogika/342-pregradualna-priprava-ucitelov-organizacia-pedagogickej- praxe-na-upjs BOBEROVÁ, Zuzana, 2017. Začínajúci učiteľ a školská legislatíva I. [online]. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 104 pp. [cited 2021-7-28]. ISBN 978-80-8152-490-5. Available from: https://unibook.upjs.sk/sk/pedagogika/398-zacinajuci-ucitel- a-skolska-legislativa-i Current informatics textbooks for primary and secondary schools in Slovakia				
Course language:				
Slovak				
Notes: By default, teaching is carried out face to face. If teaching is provided at a distance through video of	Notes: By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.			
Course assessment Total number of assessed students: 10				
abs	n			
100.0 0.0				
Provides: doc. RNDr. Ľubomír Šnajder, PhD.				
Date of last modification: 04.08.2021				
Approved:				

	· · · · · · · · · · · · · · · · · · ·		
University: P. J. Safa	rik University in Košice	: 	
Faculty: Faculty of S	cience		
Course ID: ÚMV/ VSPd/15	Course name: Continuous practice teaching II		
Course type, scope a Course type: Practic Recommended cour Per week: Per stud Course method: pre	nd the method: ce rse-load (hours): ly period: 6t esent		
Number of ECTS cr	edits: 2		
Recommended seme	ster/trimester of the co	ourse: 4.	
Course level: II.			
Prerequisities: ÚMV	V/VSPc/15		
Conditions for cours	e completion:		
Learning outcomes: Enable students to g knowledge in specific the atmosphere and the	ain first practical expe e teaching situations, to on the organization of school	rience in teaching mathematics to apply theoretical levelop their teaching skills. To acquaint students with ol.	
Brief outline of the c	ourse:		
Recommended litera	iture:		
Course language: Slovak			
Notes:			
Course assessment Total number of asse	ssed students: 52		
	abs n		
	100.0 0.0		
Provides: doc. RNDr	. Dušan Šveda, CSc., do	c. RNDr. Ingrid Semanišinová, PhD.	
Date of last modifica	ntion: 03.05.2015		
Approved:			

University: P. J	. Šafárik Univers	ity in Košice			
Faculty: Facult	y of Science				
Course ID: KP TTUP/15	E/ Course na	Course name: Creating Text Teaching Aids			
Course type, sc Course type: I Recommended Per week: 2 Pe Course metho	ope and the met Practice d course-load (h er study period: d: present	thod: ours): 28			
Number of EC	IS credits: 2				
Recommended	semester/trimes	ster of the cours	e: 2.		
Course level: II	•				
Prerequisities:					
Conditions for	course completi	on:			
Learning outco	omes:				
Brief outline of	the course:				
Recommended	literature:				
Course languag	ge:				
Notes:					
Course assessm Total number of	nent f assessed studen	ts: 170			
А	В	С	D	E	FX
58.82	27.65 8.82 3.53 1.18 0.0				
Provides: doc. 1	PaedDr. Renáta C	Drosová, PhD.		1	
Date of last mo	dification: 08.06	5.2021			
Approved:					

University: P. J.	Šafárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: KSSFaK/ KJPUAP/15	Course na	Course name: Culture of Spoken Discourse			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present					
Number of ECT	S credits: 2			_	
Recommended	semester/trimes	ster of the cours	e: 1.		
Course level: II.					
Prerequisities:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 0					
A	В	С	D	Е	FX
0.0	0.0	0.0 0.0 0.0 0.0 0.0			
Provides: PhDr. Iveta Bónová, PhD.					
Date of last modification: 08.06.2021					
Approved:					

University: P. J	. Šafárik Univers	ity in Košice			
Faculty: Facult	y of Science				
Course ID: ÚIN ODPU/15	NF/ Course na	Course name: Defence of diploma thesis			
Course type, sc Course type: Recommended Per week: Per Course metho	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present				
Number of EC	TS credits: 15				
Recommended	semester/trimes	ster of the cours	e:	=	
Course level: II	- 				
Prerequisities:	ÚINF/DSU1b/15	5			
Conditions for	course completi	on:			
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 10					
А	В	B C D E FX			
50.0	50.0 0.0 50.0 0.0 0.0 0.0				0.0
Provides:					
Date of last mo	Date of last modification: 03.05.2015				
Approved:	Approved:				

University: P. J. Šafá	University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: ÚINF/ TSM1a/15	Course name: Development and processing of multimedia				
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present				
Number of ECTS cr	edits: 2				
Recommended seme	ester/trimester of the course: 1., 3.				
Course level: II.					
Prerequisities:					
Conditions for course Conditions for ongoin 1. Creation of an edu 2. Creation of a poste 3. Creation of an edu 4. Creation of an inst Conditions for succes Obtaining at least 50	se completion: ng evaluation: cational animation. er with vector and raster graphics. cational audio recording. rructional educational video. ssful completion of the course: % of points for ongoing assignments.				
Learning outcomes: After completing this a) deepen the knowled processing of multim b) create multimedia selected topics of sch c) analyze and discus informatics.	s course, students are able to: edge of the principles of multimedia and to practice skills in the creation and hedia, teaching aids with accompanying methodological commentary for teaching hool informatics, ss the issue of teaching the creation and processing of multimedia in school				
Brief outline of the c 1. Digitization and pr 2. Digitization and pr 3. Creating animation 4. Creation of vector 5. Creation of vector 6. Creation of vector 7. 3D modeling and p 8. 3D modeling and p 9. Digitization and so 10. Digitization and so 11. Digitization and so 12. Digitization and so Recommended litera	rocessing of raster image. rocessing of raster image. rocessing of raster image. ns. graphics. graphics. graphics. orinting pund processing. sound processing. video processing. video processing.				

LACHS, V., 2000. Making Multimedia in the Classroom. London : RoutledgeFalemer. ISBN 0415216842.

GÖBEL, S. et al., 2006. Technologies for Interactive Digital Storytelling and Entertainment (LNCS 4326). Darmstadt : Springer. ISBN 3540499342.

ADÁMEK, R. et al., 2010. Moderná didaktická technika v práci učiteľa. Elfa, s.r.o., Košice. ISBN 978-80-8086-135-3.

GUNIŠ, Ján, Ľudmila JAŠKOVÁ, Katarína MIKOLAJOVÁ and Jana PEKÁROVÁ, 2009. Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Multimédiá. Bratislava: Štátny pedagogický ústav, 52 p. ISBN 978-80-89225-51-4. Also available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/publikacie/ multimedia.pdf

ŠNAJDER, Ľubomír and Marián KIREŠ, 2005. Informatika pre stredné školy - Práca s multimédiami: tematický zošit. Bratislava: Slovenské pedagogické nakladateľstvo. ISBN 80-10-00422-7.

Course language:

Slovak and partly English due to selected programs and information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment

Total number of assessed students: 14

А	В	С	D	Е	FX
42.86	21.43	21.43	7.14	7.14	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD.

Date of last modification: 24.08.2021

Approved:

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚINF/ TSM1b/15	Course ID: ÚINF/ Course name: Development and processing of multimedia			
Course type, scope a Course type: Practi- Recommended cou Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent			
Number of ECTS cr	edits: 2			
Recommended seme	ster/trimester of the course: 2., 4.			
Course level: II.				
Prerequisities:				
Conditions for cours Conditions for ongoi 1. Programmed SVG 2. Programmed anim 3. Programmed soun 4. Programmed multi Conditions for succes Obtaining at least 50	ng evaluation: image. ation. d or melody. imedia application. ssful completion of the course: % of points for ongoing assignments.			
Learning outcomes: After completing this a) explain the basic p b) design and program	course, students are able to: principles and procedures in multimedia programming, m multimedia applications.			
Brief outline of the o 1. Programming of st 2. Programming of st 3. Programming of st 4. Programming of st 5. Animation program 6. Animation program 7. Animation program 8. Programming of st 9. Programming of st 10. Programming of 11. Creating a multim 12. Creating a multim	ourse: ill images. ill images. ill images. ill images. nming. nming. nming. bunds and melodies. bunds and melodies. bunds and melodies. bunds and melodies. hedia application.			
Recommended litera SATHAYE, Ninad, 2 Publishing ISPN 07	i ture: 010. Python Multimedia: Beginner's Guide. Birmingham, UK: Packt			

Publishing. ISBN 978-1-849510-16-5. GUNIŠ, Ján, Viera MICHALIČKOVÁ, Martin CÁPAY a Ľubomír ŠNAJDER, 2020. Riešenie problémov a programovanie [online]. Bratislava: Centrum vedecko-technických informácií SR [cited 2021-7-10]. ISBN 9788089965625. Available from: https://registracia.itakademia.sk/ media/themes/nip-rpp.pdf

BLAHO, Andrej, 2016. Programovanie v Pythone 1 (prednášky k predmetu Programovanie (1) 1-AIN-130/13) [online]. Bratislava: Knižničné a edičné centrum FMFI UK, 322 s. [cited 2021-7-10]. ISBN 978-80-8147-067-7. Available from: http://python.input.sk/

Course language:

Slovak and partly English due to selected programs and information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment

Total number of assessed students: 6

А	В	С	D	Е	FX
16.67	66.67	16.67	0.0	0.0	0.0
Provides: PaedDr. Ján Guniš, PhD.					

Date of last modification: 24.08.2021

Approved:

Faculty: Faculty of Science Course ID: KPPaPZ/VPU/17 Course name: Developmental Psychology for Teachers Course type, scope and the method: Course type, scope and the method: Course type. Practice Recommended course-load (hours): Per weck: 2 Per study period: 28 Course method: present Number of ECTS credits: 2 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Condition of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various suspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of developmental stages (family, peers, school). Specifics of development in the period of school age, in pubsecence and adolescence. Parents and their role in child development. Application of knowledge of developmental psycholology in the teacher's practice - communica	University: P. J. Šafán	rik University in Košice				
Course ID: KPPaPZ/VPU/17 Course name: Developmental Psychology for Teachers Course type; scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Recommended semester/trimester of the course: 1. Number of ECTS credits: 2 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work. Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development, cognitive development, personality development, socialization in separate development, cognitive development, personality development. Socialization in separate development, cognitive development, personality development, socialization in separate development adolescence. Apart of adolescence. Arent and adolescence. Arents and their role in child development. Application of knowledge of developmental stages (family, peers, school). Specifics of development relatonship with respect to the development needs of the student. Recommended literature:	Faculty: Faculty of S	Faculty: Faculty of Science				
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per weck: 2 Per study period: 28 Course method: present Number of ECTS credits: 2 Recommended semester/trimester of the course: 1. Course level: 11. Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development, orgnitive development, personality developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development, socialization in separate development adolescence. Parents and their role in child development aspechology in the teacher's practice - communication with students in different developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recourse and fuerature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Ridard fuerature: Vágnero	Course ID: KPPaPZ/VPU/17	Course name: Developmental Psychology for Teachers				
Number of ECTS credits: 2 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development. Socialization in separate developmental stages (family, peers, school). Specifics of development relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Ričan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Macek, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela <td>Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre</td> <th>nd the method: ce rse-load (hours): dy period: 28 esent</th>	Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent				
Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of development. Socialization in separate development, cognitive development, personality development. Socialization in separate development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Řičan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha 2000 Řičan, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: Notes:<	Number of ECTS cro	edits: 2				
Course level: II. Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Říčan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Mack, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: Notes: <td>Recommended seme</td> <th>ster/trimester of the course: 1.</th>	Recommended seme	ster/trimester of the course: 1.				
Prerequisities: Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental psychology in the teacher's practice - communication with students in different developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Ričan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Mack, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: <td>Course level: II.</td> <th></th>	Course level: II.					
Conditions for course completion: Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work, Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Říčan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Macek, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: Notes:	Prerequisities:					
Learning outcomes: The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher. Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Řičan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Macek, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: Notes:	Conditions for cours Evaluation of particip of seminar work,	e completion: pation in teaching, continuous evaluation of activity in seminars, evaluation				
 Brief outline of the course: Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental psychology in the teacher's practice - communication with students in different developmental stages, creating a teacher-student relationship with respect to the development needs of the student. Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Říčan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Macek, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela Course language: Notes: 	The graduate will ur characterize the norm school age and adoles published in foreign the topics covered. The of parents and friend psychology in the pra	inderstand the principles of developmental psychology, and will be able to in in separate developmental stages with a specific focus on the period of cence. As part of the seminar work, a students will process current knowledge journals. They will have a knowledge about the current social discourse on the graduate will be able to consider various aspects of the possible influence is on the development of piupils and apply the knowledge of developmental actice of the teacher.				
Recommended literature:Vágnerová, M. Vývojová psychologie. Portál, Praha 2000Říčan, P. Cesta životem. Portál, Praha, 2004.Thorová, K. Vývojová psychologie. Portál, Praha, 2015.Macek, P. Adolescence. Praha: Portál, 2003Matějček, Z rôzne dielaCourse language:Notes:	Brief outline of the c Determinants and fa Socialization in separ in the period of sch development. Applic - communication wi relationship with resp	ourse: actors of development, cognitive development, personality development. rate developmental stages (family, peers, school). Specifics of development ool age, in pubescence and adolescence. Parents and their role in child ation of knowledge of developmental psychology in the teacher's practice th students in different developmental stages, creating a teacher-student beet to the development needs of the student.				
Course language: Notes:	Recommended literature: Vágnerová, M. Vývojová psychologie. Portál, Praha 2000 Říčan, P. Cesta životem. Portál, Praha, 2004. Thorová, K. Vývojová psychologie. Portál, Praha, 2015. Macek, P. Adolescence. Praha: Portál, 2003 Matějček, Z rôzne diela					
Notes:	Course language:	Course language:				
	Notes:					
Course assessment Total number of assessed students: 44						
--	--------------	------	------	-----	-----	--
А	A B C D E FX					
65.91	22.73	4.55	6.82	0.0	0.0	
Provides: Mgr. Mária Bačíková, PhD.						
Date of last modification: 24.06.2021						
Approved:						

University: P. J. Šafárik University in Košice						
Faculty: Faculty of Science						
Course ID: ÚINF/ Cou DIN1a/15	rse name: Didactics of informatics					
Course type, scope and th Course type: Practice Recommended course-lo Per week: 3 Per study p Course method: present	ne method: oad (hours): eriod: 42					
Number of ECTS credits	:3					
Recommended semester/	trimester of the course: 2.					
Course level: II.						
Prerequisities:						
Conditions for course con Conditions for ongoing ev 1. Proposal of a thematic p by 1 disponible hour. 2. Creation of a concept informatics. 3. Creation of a graded sys 4. Proposal for the prepara Conditions for successful Obtaining at least 50% of	npletion: aluation: blan for teaching informatics at secondary or elementary school extended map and specific educational objectives for selected topic of school stem of tasks for teaching selected topic of school informatics. ation of a lesson with a 5E inquiry cycle. completion of the course: points for ongoing assignments.					
Learning outcomes: After completing this cour a) acquire an overview of informatics, b) create conceptual map school informatics, c) create a inquiry-based r	rse, students are able to: The objectives, content, modern methods and aids for teaching school , cognitive objectives and graded tasks collection for seleced topic of nethodology of teaching a seleced topic of school informatics.					
 Brief outline of the course 1. Objectives and conteneducational program. Info 2. Maturita on informatic plan. 3. Logical structure of the objectives and creation of 4. Educational task, its for 5. Creation of a graded systematic structure is a structure of the objective is an end of the obj	e: nt of teaching informatics in primary and secondary schools. State rmatics textbooks. s. Examples of school educational programs. Designing own thematic curriculum, conceptual mapping. Determination of specific educational a concept map for a selected topic of school informatics (RBT). ms, and parameters. A graded system of tasks. stem of tasks for teaching a selected topic of school informatics. eaching school informatics (discussion and situational methods). f teaching school informatics (staging methods, educational games, eaching school informatics (problem teaching, peer learning).					

9. Activating methods of teaching school informatics (project teaching, flipped learning).

10. Inquiry-based learning, inquiry cycle, inquiry skills, levels of inquiry, 5E learning cycle.

11. Formative assessment, cognitive and metacognitive tools. Creating a worksheet with selected formative assessment tools.

12. Creating preparation for a lesson with a 5E learning cycle.

Recommended literature:

HAZZAN, Orit, Tami LAPIDOT and Noa RAGONIS, 2011. Guide to teaching computer science: an activity-based approach. New York: Springer. ISBN 9780857294425.

LAU, William, 2017. Teaching Computing in Secondary Schools: A Practical Handbook [online]. Taylor & Francis Group, 211 p. [cited 2021-7-10]. ISBN 9781315298191. Available from:

https://ebookcentral.proquest.com/lib/upjs-ebooks/detail.action?docID=5056529

ČAPEK, Robert, 2015. Moderní didaktika: lexikon výukových a hodnoticích metod. Praha: Grada. Pedagogika (Grada). ISBN 978-80-247-3450-7.

LUKÁČ, Stanislav, Ľubomír ŠNAJDER, Ján GUNIŠ and Zuzana JEŠKOVÁ, 2016. Bádateľsky orientované vyučovanie matematiky a informatiky na stredných školách [online]. Košice: Prírodovedecká fakulta UPJŠ v Košiciach [cited 2021-7-10]. ISBN 978-80-8152-471-4. Available from: https://unibook.upjs.sk/img/cms/2016/pf/bov.pdf

SPENDLOVE, David, 2015. 100 Ideas for Secondary Teachers: Assessment for Learning [online]. Bloomsbury Publishing, 129 p. [cited 2021-7-9]. ISBN 9781472911018. Available from:: https://ebookcentral.proquest.com/lib/upjs-ebooks/detail.action?docID=1990785 GANAJOVÁ, Mária, Beáta BRESTENSKÁ, Ján GUNIŠ, et al., 2021. Formatívne hodnotenie vo výučbe prírodných vied, matematiky a informatiky. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach. ISBN 978-80-8152-973-3.

GUNIŠ, Ján, Miloslava SUDOLSKÁ and Ľubomír ŠNAJDER, 2009. Ďalšie vzdelávanie učiteľov základných a stredných škôl v predmete informatika: Aktivizujúce metódy vo výučbe školskej informatiky. Bratislava: Štátny pedagogický ústav, 40 p. ISBN 978-80-89225-96-5. Also available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/publikacie/ aktivizujúce_metody.pdf

Course language:

Slovak and partly English due to selected programs and information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment

Total number of assessed students: 69

А	В	С	D	Е	FX	
27.54	15.94	23.19	20.29	11.59	1.45	
Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.						
Date of last modification: 01.08.2021						
Approved:						

University: P. J. Šafárik University in Košice								
Faculty: Faculty of Science								
Course ID: ÚINF/ DIN1b/15	Course name: Didactics of informatics							
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present							
Number of ECTS cro	edits: 5							
Recommended seme	ster/trimester of the course: 3.							
Course level: II.								
Prerequisities:								
Conditions for cours Conditions for ongoin 1. Creation of an inte 2. Microteaching with 3. Assessment of adm 4. Creation of an assig junior competition, co Conditions for the fir 1. Elaboration of a fivarious didactic fun selected topics of sch 2. Presentation of ow Conditions for succes Obtaining at least 500	e completion: ng evaluation: ractive educational aid. h a sample solution of an algorithmic problem. ninistered didactic test. gnment and a commented author's solution of the STEAM task for the PALMA prrection, and assessment of student solutions. hal evaluation: inal paper focused on the conceptual process, creation of assignments with ctions, naming misconceptions, and assessment of learning outcomes of ool informatics. n teacher's portfolio with discussion. asful completion of the course: % of points for ongoing and final assignments.							
Learning outcomes: After completing this course, students are able to: a) select and explain essential concepts for a selected topic of school informatics, b) create and present an assignment and a sample solution to an algorithmic problem, c) analyze and assess students' assignments and identify their misconceptions, d) design and discuss the methodology of teaching a selected topic of school informatics, which includes its own interactive teaching aid, e) complete your own teaching portfolio.								
 Brief outline of the c 1. Assessment of stuc 2. Assessment of stuc 3. Conceptual process 4. Informatics concept 5. Informatics concept 6. Methodology of the compression). 	ourse: lents' learning outcomes in school informatics. Didactic tests. lent projects. Student portfolio. s in school informatics. ots in informatics competitions (iBobor). ots in activities outside the computer (Computer Science Unplugged). teaching selected topics in the field of Representation and tools (coding,							

7. Methodology of teaching selected topics in the field of Representation and tools (encryption, steganography).

8. Methodology of teaching selected topics in the field of Representation and tools (data analysis and visualization).

9. Methodology of teaching selected topics in the field of Communication and Cooperation (communication and collaboration tools).

10. Methodology of teaching selected topics in the field of hardware and software (kits with sensors and actuators).

11. Methodology of teaching selected topics in the field of Information Society (information security and cybersecurity).

12. Completion of the portfolio of an informatics teacher (thematic plan, preparations from teaching self-reflection of student, worksheet with formative assessment tools, interactive educational aid, sample solution of an algorithmic problem, maturita assignment, system of tasks with increasing difficulty, assessment of an administered didactic test).

Recommended literature:

HAZZAN, Orit, Tami LAPIDOT and Noa RAGONIS, 2011. Guide to teaching computer science: an activity-based approach. New York: Springer. ISBN 9780857294425.

LAU, William, 2017. Teaching Computing in Secondary Schools: A Practical Handbook [online]. Taylor & Francis Group, 211 p. [cited 2021-7-10]. ISBN 9781315298191. Available from: https://ebookcentral.proquest.com/lib/upjs-ebooks/detail.action?docID=5056529

COMPUTER SCIENCE EDUCATION RESEARCH GROUP AT THE UNIVERSITY OF CANTERBURY, NEW ZEALAND. Computer Science Field Guide: An online interactive resource for high school students learning about computer science [online]. [cited 2021-7-10]. Available from: https://www.csfieldguide.org.nz/en/

COMPUTER SCIENCE EDUCATION RESEARCH GROUP AT THE UNIVERSITY OF CANTERBURY, NEW ZEALAND. Computer Science without a computer [online]. [cited 2021-7-10]. Available from: https://csunplugged.org/en/

QUEEN MARY, UNIVERSITY OF LONDON. Computer Science For Fun: A magazine where the digital world meets the real world [online]. [cited 2021-7-10]. Available from: http://www.cs4fn.org/

GUNIŠ, Ján and Ľubomír ŠNAJDER, 2009. Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Tvorba úloh a hodnotenie žiakov v predmete informatika. Bratislava: Štátny pedagogický ústav, 40 p. ISBN 978-80-8118-012-5. Also available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/publikacie/ tvorba_uloh_a_hodnotenie.pdf

GUNIŠ, Ján and Ľubomír ŠNAJDER, 2010. Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Metodika výučby tematickej oblasti Informácie okolo nás. Bratislava: Štátny pedagogický ústav, 40 p. ISBN 978-80-8118-030-9. Also available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/publikacie/ metodika_informacie_okolo_nas.pdf

GUNIŠ, Ján and Ľubomír ŠNAJDER, 2010. Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Metodika výučby tematickej oblasti Komunikácia prostredníctvom IKT. Bratislava: Štátny pedagogický ústav, 32 p. ISBN 978–80–8118–036-1. Also available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/ publikacie/metodika_komunikacia_prostrednictvom_ikt.pdf

GUNIŠ, Ján and Ľubomír ŠNAJDER. Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Metodika výučby oblastí Princípy fungovania IKT a Informačná spoločnosť. Bratislava: Štátny pedagogický ústav, 32 p. ISBN 978–80–8118–045-3. Also

available from: https://www.statpedu.sk/files/sk/o-organizacii/projekty/projekt-dvui/publikacie/ metodika_informacna_spolocnost.pdf

Course language:

Slovak and partly English due to selected programs and information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment

Total number of assessed students: 151

А	В	С	D	Е	FX
17.88	33.77	23.84	15.89	7.95	0.66

Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 01.08.2021

Approved:

Faculty: Faculty of Science Course ID: ÚMV/ DDMa/14 Course name: Didactics of mathematics Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present Number of ECTS credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Didactical principles, methods of mathematics teaching Poical and didactical curriculum analysis Determination of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended Hiterature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantiková, K. Hončarivová, O. Kopanev: Didaktika matematiky, UPIŠ 1982 (in slovak) [3] R.Fischer, G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak)	University: P. J. Šafá	University: P. J. Šafárik University in Košice						
Course ID: ÚMV/ DDMa/14 Course name: Didactics of mathematics Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present Number of ECTS credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Planning in optical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: I1/ M-Hipiy a koi. Teorie yvučovania matematiky, SPN Blava 1989, (in slovak) I2/ L-Frantiková,K-Hončarivová,O.Kopanev:	Faculty: Faculty of S	Faculty: Faculty of Science						
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present Number of ECTS credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning objectives Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantiková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer	Course ID: ÚMV/ DDMa/14	MV/ Course name: Didactics of mathematics						
Number of ECTS credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Conditions for course completion: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantiková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957.	Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 28 esent						
Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Conditions for course completion: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Haning in mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak)<	Number of ECTS cr	edits: 5						
Course level: II. Prerequisities: Conditions for course completion: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantiková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) <td>Recommended seme</td> <th>ster/trimester of the course: 2.</th>	Recommended seme	ster/trimester of the course: 2.						
Prerequisities: Conditions for course completion: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantiková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřína, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) Course language: <td>Course level: II.</td> <th></th>	Course level: II.							
 Conditions for course completion: Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment. Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřina, F.: Ditě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) Course language: Slovak 	Prerequisities:							
 Learning outcomes: Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics. Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) Course language: Slovak 	Conditions for cours Continuous assessme	e completion: nt - 60% of the total assessment, exam - 40% of the total assessment.						
 Brief outline of the course: Subject of Didactics of Mathematics, the development of mathematics and mathematics education. Aims and objectives of mathematics teaching Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives Didactical principles, methods of mathematics teaching Assessment of learning outcomes, the creation of didactic tests Mathematical problems Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) 	Learning outcomes: Master the basic prin schools. Gain knowle	nciples and methods of teaching of mathematics at primary and secondary edge of the various ways of teaching specific topics of school mathematics.						
 Recommended literature: [1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak) [2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) [3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak) [4] Polya, G.: How to solve it, Princeton University Press, 1957. [5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech) Course language: Slovak 	Brief outline of the c Subject of Didactics of Aims and objectives of Planning in mathema Logical and didactica Determination of lear Didactical principles, Assessment of learnin Mathematical problem Construction numeric	ourse: of Mathematics, the development of mathematics and mathematics education. of mathematics teaching tics teaching Il curriculum analysis ming objectives methods of mathematics teaching ng outcomes, the creation of didactic tests ms e fields, Theory of elementary functions, synthetic and analytic geometry						
Course language: Slovak	Recommended litera [1] M.Hejný a kol.: T [2] L.Frantíková,K.H [3] R.Fischer,G.Mallo [4] Polya, G.: How to [5] Hejný, M., Kuřina Portál, Praha 2001. (i	iture: čeorie vyučovania matematiky, SPN Blava 1989, (in slovak) ončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak) e: Človek a matematika, SPN Bratislava 1992 (in slovak) o solve it, Princeton University Press, 1957. a, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. n czech)						
	Course language: Slovak							
Notes:	Notes:							

Course assessment Total number of assessed students: 76						
А	A B C D E FX					
44.74	31.58	15.79	5.26	2.63	0.0	
Provides: doc. RNDr. Dušan Šveda, CSc.						
Date of last modification: 03.05.2015						
Approved:						

University: P. J. Šafárik University in Košice						
Faculty: Faculty of Science						
Course ID: ÚMV/ DDMb/14	Course name: Didactics of mathematics					
Course type, scope a Course type: Lectur Recommended cou Per week: 2 / 2 Per Course method: pre	and the method: re / Practice rse-load (hours): study period: 28 / 28 esent					
Number of ECTS cr	edits: 4					
Recommended seme	ster/trimester of the course: 3.					
Course level: II.						
Prerequisities: ÚMV	/DDMa/14					
Conditions for course Seminar paper - 40% Written exam - 40% Homework - 20% of Evaluation A - at leas evaluation B - at least evaluation C at least evaluationD at least 6 evaluationE rating of Credits shall not be g	se completion: of the total score. of the total score. the total score. st 90% points, t 80%, 70%, 50%, at least 50% of the points. granted to a student who receives less than 50% of the points.					
Learning outcomes: Students become fam teaching methods of of history of mathema focusing on the creat	iliar with some mathematical theories of education. They will acquire different selected topics of school mathematics. Become familiar with the potential use atics in teaching. Students will be prepared to work in the educational process, ive application of knowledge in mathematics.					
Brief outline of the c Student learning proc Language of mathem Using history of math Students' learning dif Teaching mathematic Combinatorics, proba Calculus. Developing mathemat	eourse: bess. batics, enactive iconic and symbolic representation. hematics in the teaching mathematics. fficulties and their possible causes. cal proofs. ability, statistics. htical creativity. Motivation. httre:					
 [1] M.Hejný a kol.: T [2] Hejný, M., Kuřin Portál, Praha 2001. [3] Fischer, R., Malle [4] Učebnice a zbierk 	 Recommended literature: [1] M.Hejný a kol.: Teoria vyučovania matematiky, SPN Blava 1989. [2] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. [3] Fischer, R., Malle, G.: Človek a matematika, SPN Bratislava 1992. [4] Učebnice a zbierky úloh pre stredné a základné čkoly. 					

Course languag Slovak	Course language: Slovak						
Notes:							
Course assessment Total number of assessed students: 77							
А	В	B C D E FX					
71.43	15.58 10.39 1.3 1.3 0.0						
Provides: doc.]	Provides: doc. RNDr. Ingrid Semanišinová, PhD.						
Date of last modification: 03.05.2015							
Approved:	Approved:						

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of Science					
Course ID: ÚMV/ DFR/10	Course name: Differential equations				
Course type, scope a Course type: Lectur Recommended cour Per week: 3 / 1 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 42 / 14 esent				
Number of ECTS cr	edits: 5				
Recommended seme	ster/trimester of the course: 1.				
Course level: I., II.					
Prerequisities:					
Conditions for cours Continuous assessme by continuous assess	e completion: ent is taken the form of two tests during the semester. Final evaluation is given ment (40%), written and oral part of the exam (30% and 30%).				
Learning outcomes: Theory of differentian numerous application is to familiarize study systems, and method them as possible mat	I equations is one of the fundamental areas of mathematical analysis. It has as in various fields of science and technology. The main objective of this course ents with the basics of the theory of ordinary differential equations and their s for solving certain types of differential equations and systems. We consider hematical models of real situations.				
Brief outline of the c Basic concepts. Eler equations. The existe of the first order, the equations of the n-th differential systems - of solutions to Cauch structure of general equations and system Euler differential equ	nentary methods for solving and applications of the first order differential nce and uniqueness of solutions to Cauchy problem for differential equations n-th order and for differential systems. The relationship between differential order and systems. Linear differential equations of the n-th order and linear the local and global theorem on the existence and uniqueness hy problem, basic properties of solutions, fundamental system of solutions, solution, Lagrange method of variation of constants, linear differential equations. Elimination method for solving the systems of differential equations.				
Recommended litera 1. L. Kluvánek, I. Mi 2. J. Eliaš, J. Horváth Slovak). 3. S. J. Farlow: An in Publications, New Yo 4. W. Kohler, L. John Pearson Education, E 5. M. Tenenbaum: On 6. J. C. Robinson: An Press, Cambridge, 20	 ature: šík, M. Švec: Matematika II, SVTL, Bratislava, 1961 (in Slovak). a, J. Kajan: Zbierka úloh z vyššej matematiky 3, Alfa, Bratislava, 1980 (in attroduction to differential equations and their applications, Dover ork, 2006. ason: Elementary differential equations with boundary value problems, Boston, 2006. ardinary differential equations, Dover Publications, New York, 1985. a introduction to ordinary differential equations, Cambridge University 004. 				

7. J. Polking, A. Boggess, D. Arnold: Differential equations, Prentice Hall (Pearson), Upper Saddle River, 2006.

Course langua Slovak	Course language: Slovak							
Notes:								
Course assess	nent							
Total number of	of assessed student	.s: 149						
А	В	С	D	Е	FX			
20.13	20.13 20.81 14.77 22.15 18.79 3.36							
Provides: Mgr. Jozef Kiseľák, PhD.								
Date of last modification: 03.05.2015								
Approved:	Approved:							

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚINF/ DPP1/14	Course ID: ÚINF/ Course name: Diploma Project I DPP1/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of ECTS cr						
Recommended seme	ster/trimester of the cours	e: 1.				
Course level: II.						
Prerequisities:						
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language:						
Notes:	Notes:					
Course assessment Total number of assessed students: 9						
abs n						
100.0 0.0						
Provides:						
Date of last modification:						
Approved:						

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚINF/ DPP2/14	Course ID: ÚINF/ Course name: Diploma Project II DPP2/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the cours	e: 2.				
Course level: II.						
Prerequisities:						
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language:						
Notes:						
Course assessment Total number of assessed students: 9						
abs n						
100.0 0.0						
Provides:						
Date of last modification:						
Approved:						

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚINF/ DPP3/14	Course ID: ÚINF/ Course name: Diploma Project III DPP3/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the cours	e: 3.				
Course level: II.						
Prerequisities:						
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language:						
Notes:	Notes:					
Course assessment Total number of assessed students: 4						
abs n						
100.0 0.0						
Provides:						
Date of last modification:						
Approved:						

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚMV/ DPP2a/14	Course ID: ÚMV/ Course name: Diploma project I DPP2a/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: esent					
Number of ECTS cr	edits: 1					
Recommended seme	ster/trimester of the cours	se: 1.				
Course level: II.						
Prerequisities:						
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language: Slovak						
Notes:						
Course assessment Total number of asses	Course assessment Total number of assessed students: 39					
abs n						
100.0 0.0						
Provides: doc. RNDr. Dušan Šveda, CSc.						
Date of last modification: 03.05.2015						
Approved:						

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚMV/ DPP2b/14	Course ID: ÚMV/ Course name: Diploma project II DPP2b/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the cours	e: 2.				
Course level: II.						
Prerequisities: ÚMV	//DPP2a/14					
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language: Slovak						
Notes:						
Course assessment Total number of asses	Course assessment Total number of assessed students: 38					
	abs n					
100.0 0.0						
Provides: prof. RNDr. Jozef Doboš, CSc.						
Date of last modification: 03.05.2015						
Approved:						

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚMV/ DPP2c/14	Course ID: ÚMV/ Course name: Diploma project III DPP2c/14					
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: esent					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the cour	se: 3.				
Course level: II.						
Prerequisities: ÚMV	/DPP2b/14					
Conditions for cours	e completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	ture:					
Course language: Slovak						
Notes:						
Course assessment Total number of assessed students: 30						
abs n						
100.0 0.0						
Provides:						
Date of last modification: 03.05.2015						
Approved:						

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: KPPaPZ/PUDU/15	Course name: Drug Addiction Prevention in Educational Practice
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 1 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 14 esent
Number of ECTS cr	edits: 4
Recommended seme	ster/trimester of the course: 1., 3.
Course level: II.	
Prerequisities:	
Conditions for cours 1st part of the semes semester evaluation: preparation (10p) and of the evaluation - w 90p and the final grad less: FX. Detailed inf of the subject will be	Se completion: ter evaluation: active participation in the training part (30p). 2nd part of the active participation in workshops (20p) 3rd part of the semester evaluation - l implementation (10p) of block activities (20p, minimum 11 points). 4th part ritten knowledge exam (20p, minimum 11 points). In total, students can get de is as follows: 90 - 82: A 81 - 73: B 72 - 66: C 65 - 59: D 58 - 54: E 53 and formation in the electronic bulletin board of the course in AIS2. The teaching realized by a combined method.
Learning outcomes: The student understand and explain the detern use. Understands and non-substance addict The student is also a approaches in preven The student is able to in the field of drug u teacher and prevention	nds principals of research data based prevention of risk behavior, can describe minants of risk behavior as well as protective and risk factors for substance a dequately interprets the theory explaining the background of substance and ions. able to state and classify the types and forms of prevention, strategies and tion, can distinguish effective strategies from ineffective ones. apply the learned rules, procedures and competencies for the work of a teacher use prevention, as well as the acquired professional skills for the work of a on coordinator at school.
Brief outline of the c Psychological, pedag prevention Prevention of substar Primary, secondary a Universal, selective a Effective substance p Preparation and imple	gogical-psychological, medical and legal-forensic aspects of substance use nee use based on risk and resilience nd tertiary prevention of substance use and indicated prevention of substance use prevention strategies based on research data ementation of components of effective substance use prevention programs
Orosová, O. a kol. (2 internetu v školskej p	nure: 012). Základy prevencie užívania drog a problematického používania praxi. Košice: UPJŠ.

Sloboda, Z., & Bukoski, J. (Eds.). (2006). Handbook of Drug Abuse Prevention: Theory, Science, and Practice. New York: Springer.

National and international scientific journals.

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 321

А	В	С	D	Е	FX
50.78	40.19	8.1	0.93	0.0	0.0

Provides: prof. PhDr. Oľga Orosová, CSc., Mgr. Marta Dobrowolska Kulanová, PhD., Mgr. Lucia Barbierik, PhD., Mgr. Lenka Abrinková, Mgr. Frederika Lučanská, Mgr. Viera Čurová, Mgr. Marcela Štefaňáková, PhD.

Date of last modification: 25.06.2021

Approved:

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚMV/ DGE/10	Course name: Dynamic geometry
Course type, scope a Course type: Lectur Recommended course Per week: 1 / 2 Per Course method: press	nd the method: re / Practice rse-load (hours): study period: 14 / 28 esent
Number of ECTS cr	edits: 3
Recommended seme	ster/trimester of the course: 3.
Course level: II.	
Prerequisities:	
Conditions for course test using a computer	e completion: , didactic project and final exam
Learning outcomes: To acquire command Cabri 3D. To learn to objects and their attr relationships between	Is and the concept of dynamic constructions in the program Geogebra and o use a dynamic geometry environment for experimentation with geometric ibutes and the investigation of invariant properties of geometric figures and n objects in triangles, quadrilaterals, and conics basic solid figures.
Brief outline of the c Constructions and e use in solving cons Ptolemy's theorem, o of transformations in Mathematical modeli of extremes. The cross lines and solid figure support active learning	ourse: xploration of the properties of triangles, quadrilaterals, circles, and their struction tasks. Menelaus' theorem, Ceva's theorem, Varignon's theorem, cyclic and tangential quadrilaterals, the centre point of polygons. The use a solving tasks. Constructions of conics and their use in solving problems. ng and exploration of functional dependencies, solving problems for searching s positions of linear geometric shapes in space, cuts of solid figures, intersetion es. Analysis of the possibilities of using dynamic geometry environment to ng of mathematics.
Recommended litera 1. Vaníček, J.: Počíta Praze, 2009. 2. King, J., Schattsch and Research. The M 3. De Villiers, M., D. 2003.	Iture: čové kognitivní technologie ve výuce geometrie. Univerzita Karlova v neider, D.: Geometry Turned On! Dynamic Software in Learning, Teaching, lathematical Association of America, 1997. : Rethinking proof with the Geometer's Sketchpad. Key Curriculum Press,
Course language: Slovak	
Notes:	

Course assessment Total number of assessed students: 39							
А	A B C D E FX						
48.72	48.72 30.77 12.82 7.69 0.0 0.0						
Provides: doc. RNDr. Stanislav Lukáč, PhD.							
Date of last modification: 03.05.2015							
Approved:							

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	y of Science						
Course ID: KPPaPZ/VP/09	Course ID: Course name: Educational Counselling KPPaPZ/VP/09 Image: Educational Counselling						
Course type, sc Course type: I Recommended Per week: 2 Pe Course metho	ope and the met Practice d course-load (h er study period: d: present	hod: ours): 28					
Number of EC	I'S credits: 2						
Recommended	semester/trimes	ter of the cours	se: 2.				
Course level: II	•						
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	omes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Notes:	,						
Course assessm Total number of	ient f assessed studen	ts: 162					
А	В	С	D	E	FX		
66.05	20.99	8.02	3.7	1.23	0.0		
Provides: PhDr.	. Anna Janovská,	PhD.	I	<u> </u>	I		
Date of last mo	dification: 28.06	.2021					
Approved:							

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	y of Science						
Course ID: KP ZSP/15	ID: KPE/ Course name: Essentials of Special Education						
Course type, sc Course type: I Recommended Per week: 2 Pe Course metho	ope and the met Lecture I course-load (h er study period: d: present	thod: ours): 28					
Number of EC	I'S credits: 2						
Recommended	semester/trimes	ster of the cours	e: 3.				
Course level: II	-						
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	mes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Notes:							
Course assessm Total number of	ent f assessed studen	ts: 429					
А	В	С	D	Е	FX		
54.55	54.55 26.34 13.05 4.66 1.17 0.23						
Provides: Paedl	Dr. Michal Novo	cký, PhD.		•	<u></u>		
Date of last mo	dification: 08.06	5.2021					
Approved:							

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	y of Science						
Course ID: KPI ZZP/12	Course ID: KPE/ Course name: Experiential Education ZZP/12						
Course type, sc Course type: I Recommended Per week: 1 / 2 Course metho	ope and the met Lecture / Practice I course-load (h 2 Per study perio d: present	thod: ours): od: 14 / 28					
Number of EC	I'S credits: 4		1.0				
Recommended	semester/trimes	ster of the cours	e: 1., 3.				
Course level: II	•						
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	mes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Notes:							
Course assessm Total number of	ent f assessed studen	ts: 299					
А	В	С	D	Е	FX		
47.16	37.12	13.71	2.01	0.0	0.0		
Provides: doc. I	PaedDr. Renáta C	Drosová, PhD.		<u>. </u>			
Date of last mo	dification: 08.06	5.2021					
Approved:							

University: P. J.	Šafárik Univers	ity in Košice				
Faculty: Faculty	of Science					
Course ID: ÚIN FO1/15	F/ Course na	/ Course name: Formal languages and automata				
Course type, sco Course type: La Recommended Per week: 2 / 1 Course method	pe and the met ecture / Practice course-load (h Per study perio	thod: ; ours): od: 28 / 14				
Number of ECT	S credits: 5					
Recommended s	semester/trimes	ster of the cours	e: 1., 3.			
Course level: II.						
Prerequisities:						
Conditions for c	ourse completi	on:				
Learning outcom To provide theory knowledge in the	nes: etical backgroun eory of automata	nd for studying co a.	mputer science	in general, by give	ing the necessary	
Brief outline of the Greibach normal sensitive grammar machines. Space correspondence p	the course: l structure of c ars and linearly- e bounded mad problem. Undec	contextfree grams bounded Turing chines. Phrase-st idable problems	ars.Determinist machines. Dete ructure gramm in the theory of	ic pushdown aut rministic linearly hars and Turing formal language	omata. Context- -bounded Turing machines. Post s.	
Recommended I	iterature:					
Course language	2:					
Notes:						
Course assessme Total number of	Course assessment Total number of assessed students: 11					
А	В	С	D	Е	FX	
36.36	36.36	18.18	9.09	0.0	0.0	
Provides: prof. F	NDr. Viliam Ge	effert, DrSc., Mg	r. Alexander Sz	zabari, PhD.		
Date of last mod	ification: 03.05	5.2015				
Approved:						

University: P. J	. Šafárik Univer	sity in Košice				
Faculty: Faculty	Faculty: Faculty of Science					
Course ID: ÚM GEO2b/10	rse ID: ÚMV/ Course name: Geometry II 2b/10					
Course type, sc Course type: 1 Recommended Per week: 3 / 2 Course metho	ope and the me Lecture / Practic d course-load (1 2 Per study per d: present	ethod: e nours): iod: 42 / 28				
Number of EC	FS credits: 6					
Recommended	semester/trime	ester of the cours	se: 1.			
Course level: II	•					
Prerequisities:						
Conditions for	course complet	ion:				
Learning outco To obtain know	mes: ledge about affi	ne, isometric, and	l similarity transf	formations and tl	neir properties.	
 Quadric surfa Affine transfa Affine transfa Isometric transfa Isometric transfa Similarity transfa Geometry of pencils of circle Recommended M. Sekanina O. Šedivý et H.S.M. Coxe 	aces (circular an ormations (associo- lo-reflections) ransformations reflections) ransformations circles (the powers) literature: et al, Geometry al, Geometry 2, ter, Introduction	d general quadric ciated transformat (matrix represent (matrix represent wer of a point with 2, SPN, 1988 (in SPN, 1987 (in slow to geometry, With	surfaces) tion, matrix repre- ntation, isometric tation, similariti th respect to a ca slovak). ovak). ley, 1989.	esentation, affinites, classification ies, homothety, ircle, radical axi	ties, fixed points n in the plane, composition of s of two circles,	
4. J.T. Smith, M	lethods of geom	etry, Wiley, 2000	•			
Course languag Slovak	ge:					
Notes:						
Course assessment Total number of assessed students: 115						
А	В	C	D	Е	FX	
17.39	17.39	23.48	17.39	21.74	2.61	
Provides: RND	r. Igor Fabrici, I	Dr. rer. nat., RND	r. Veronika Hube	ňáková, PhD.	-	
Date of last mo	dification: 03.0	5.2015				

Approved:

University: P. J.	University: P. J. Šafárik University in Košice					
Faculty: Facult	Faculty: Faculty of Science					
Course ID: ÚM GEO2c/10	V/ Course na	V/ Course name: Geometry III				
Course type, sc Course type: I Recommended Per week: 2 / 1 Course metho	ope and the me Lecture / Practice d course-load (h l Per study peri d: present	thod: e iours): od: 28 / 14				
Number of EC	FS credits: 4					
Recommended	semester/trimes	ster of the cours	e: 2.			
Course level: II	•					
Prerequisities:						
Conditions for	course completi	ion:				
Learning outco A new look on	mes: the classical geo	metric results.				
 Brief outline of the course: Points and lines connected with a triangle (Menelaus's theorem, Ceva's theorem, points of interest, the incircle and excircles, pedal triangles, Euler line, nine-point circle) Properties of circles (the power of a point with respect to a circle, radical axis of two circles, Simson lines, Ptolemy's theorem, Morley's theorem) Collinearity and concurrence (quadrangles, Varignon's parallelogram, cyclic quadrangles, Brahmagupta's formula, Napoleon triangles) Focal properties of regular conics (Dandelin spheres, tangents and directrix of a regular conic) Inversion with respect to a circle (basic properties, composition of inversions and homotheties) Recommended literature: H.S.M. Coxeter, S.L. Greitzer, Geometry revisited, MAA, 1967. R.A. Johnson, Advanced Euclidean geometry, Dover Publ., 2007. A.V. Akopyan, A.A. Zaslavsky, Geometry of conics, AMS, 2007. D.A. Brannan, M.F. Esplen, J.J. Gray, Geometry, Cambridge Univ. Press, 2007. 						
Course languag Slovak	ge:					
Notes:	Notes:					
Course assessment Total number of assessed students: 107						
A	В	C	D	E	FX	
22.43	22.43 27.1 29.91 10.28 10.28 0.0					
Provides: RND	r. Igor Fabrici, D	r. rer. nat.				
Date of last mo	dification: 03.05	5.2015				
	······					

Approved:

University: P. J. Š	Safárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: ÚINF TIK1/15	F/ Course name: Information theory, encoding				
Course type, scop Course type: Le Recommended o Per week: 2 / 1 Course method:	pe and the met cture / Practice course-load (h Per study perio present	hod: ours): od: 28 / 14			
Number of ECTS	S credits: 4				
Recommended se	emester/trimes	ter of the cours	e: 1.		
Course level: II.					
Prerequisities:					
Conditions for co	ourse completi	on:			
Learning outcom	ies:				
Brief outline of tl	he course:				
Recommended li	terature:				
Course language	:				
Notes:					
Course assessme Total number of a	nt assessed studen	ts: 88			
A	В	С	D	Е	FX
64.77	11.36	12.5	3.41	0.0	7.95
Provides: prof. R	NDr. Stanislav	Krajči, PhD.		<u>I</u>	l
Date of last modi	fication: 03.05	.2015			
Approved:					

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of Science						
Course ID: ÚINF/ VIV1/15	Course name: Internet in education					
Course type, scope a Course type: Lectur Recommended cour Per week: 1 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 14 / 28 esent					
Number of ECTS cr	edits: 4					
Recommended seme	ster/trimester of the course: 2.					
Course level: II.						
Prerequisities:						
Conditions for cours Assessment of prelim lesson, design and im In final exam student form and they will pr (design and implement lesson exploiting sever	be completion: ninary assignments - design of a teleproject, design of an e-learning course aplementation of a video-conference activity. Its will demonstrate an overview of using the Internet in education in written resent and defend their final work focused on using the Internet in education entation of an e-learning course, teleproject, webquest, on-line competition, eral Internet sources and tools).					
 Learning outcomes: 1. To acquire an over 2. To enhance skills Internet. 3. To design, develor online competition, v 	view of the possibilities of using the Internet in education. for searching, acquiring, exchanging and presenting information via the p and verify an Internet activity (e-learning course, teleproject, WebQuest, ideo lecture).					
Brief outline of the c Overview of using th implementation and e teleexperiments. Con networking. Social, m	ourse: ne Internet in education. Educational Web sites and search engines. Design, evaluation of e-learning courses. Educational teleprojects, online competitions, mmunicating via the Internet - forums, blogs, videoconferences, social nedical, ethical and legal aspects of using the Internet.					
Recommended litera 1. CONRAD, Rita-M Activities and Resour ISBN 978-111801819 2. FREEDMAN, Terr http://www.terry-free %202%20online%20 3. MANN, B. L. Sele 2005. ISBN 15-9140 4. BARANOVIČ, R. Press, 2003. 275 s. IS	Ature: Iarie - DONALDSON, J. Ana (2011). Engaging the Online Learner: rces for Creative Instruction. Jossey-Bass; Updated Edition edition 2011. 94. ry (2010) The Amazing Web 2.0 Projects Book. dman.org.uk/web2_2010/Amazing%20Web%202%20Projects version.pdf ected Styles in Web-based Educational Research. Information Science Pub, -732-X. et al. Internet pre stredné školy - Učebnica Internetu. Praha : Computer BN 80-251-0088-X.					

Course language:						
Notes:						
Course assessment Total number of assessed students: 152						
А	B C D E FX					
15.13	33.55	21.05	14.47	12.5	3.29	
Provides: doc.	Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.					
Date of last modification: 01.04.2020						
Approved:						

University: P. J. Šafárik University in Košice							
Faculty: Faculty of S	Faculty: Faculty of Science						
Course ID: KPPaPZ/UPN/17	Course name: Introduction into Psychology of Religion						
Course type, scope a Course type: Practi Recommended cou Per week: 2 Per stu Course method: pro	and the method: ce rse-load (hours): ady period: 28 esent						
Number of ECTS cr	redits: 2						
Recommended seme	ester/trimester of the course: 2.						
Course level: II.							
Prerequisities:							
Conditions for cours The assessment is ba distance format. Up- found on the electron	se completion: used on the interim evaluation. The subject will be taught in both present and to-date information concerning the subject for the given academic year can be nic board of the subject in the Academic information system of the UPJŠ.						
Learning outcomes: The aim of the subjection of the field of research knowlege need for or critical thinking as we disciplines.	ect is to gain a basic overview of the origin and current state of knowledge ch and application of the psychology of religion. Students will aquire basic rientation in the field and emphasis will be given to individual reflection and rell as application of already acquired knowledge from other (psychological)						
Brief outline of the of 1. History of psychol 2. Psychological pers 3. Psychology of reli 4. Basic approaches 5. Different types of 6. Psychological view 7. Spirituality versus 8. Coping in the cont 9. Psychotherapy and	course: logy of religion in national and world context spective on religion and religious experience gion in an interdisciplinary context to psychological interpretation and selected views religious experience w of religion from a biodromal perspective religiosity in a postmodern society text of religiosity d religion, pastoral psychology						
Recommended litera Eliade, M. (1994). Po Eliade, M. (1995). D Freud, S. (1999). Nu Praha: Psychoanalyti Fromm, E. (2003). P Erikson, E. (1996). M Psychoanalytické nal James, W. (1930). Da Jung, C. G. (1993). A	ature: osvátné a profánní. Praha: Česká křesťanská akademie. ějiny náboženského myšlení 1. Praha: Oikoymenh. tkavá jednání a náboženské úkony. In Freud, S., Spisy z let 1906–1909. cké nakladatelství. sychoanalýza a náboženství. Praha: Aurora Aladý muž Luther: studie psychoanalytická a historická. Praha: kladatelství. ruhy náboženské zkušenosti. Praha: Melantrich. Analytická psychologie: Její teorie a praxe. Praha: Academia.						

Křivohlavý, J. (2000). Pastorální péče. Praha: Oliva Pargament, K. (1997), Psychology of religion and coping, Říčan, P. (2007). Psychologie náboženství a spirituality. Praha: Portál. Říčan P. (2002), Psychologie náboženství, Portál, Praha, Stríženec, M. (2001) Súčasná psychológia náboženstva						
Course languag	ge:					
Notes:						
Course assessm Total number o	nent f assessed studen	ts: 25				
А	В	С	D	Е	FX	
100.0	100.0 0.0 0.0 0.0 0.0					
Provides: Mgr. Jozef Benka, PhD. et PhD.						
Date of last modification: 25.06.2021						
Approved:						

University: P. J. Š	University: P. J. Šafárik University in Košice						
Faculty: Faculty of Science							
Course ID: ÚINF UGR1/15	Course na	me: Introduction	to computer gr	aphics			
Course type, scop Course type: Le Recommended Per week: 2 / 2 1 Course method:	Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present						
Number of ECTS	S credits: 5						
Recommended se	emester/trimes	ster of the course	e: 1., 3.				
Course level: I., I	I						
Prerequisities:							
Conditions for co	ourse completi	on:					
Learning outcom To provide the str graphics.	es: udents with kn	owledge of graph	nics algorithms	and basic princip	les of computer		
Graphics hardwar drawing 2D prim spline forms, Béz perspective and Rendering techn computer animati	Brief outline of the course: Graphics hardware, input and output devices. Color models, palettes. Raster graphics algorithms for drawing 2D primitives. Filling and clipping. Curve modeling, interpolations and approximations, spline forms, Bézier curves, B-splines, surfaces. Homogenous coordinates, affine transformations, perspective and parallel projections. Visible-surface determination, illumination and shading. Rendering techniques, photorealism, textures, ray tracing, radiosity. Object representations, computer animation, virtual reality.						
Recommended lin FOLEY, J. D., van Practice, Addison MORTENSON, N	terature: n DAM, A., FE n-Wesley, 1991 M.E.: Geometri	EINER, S., HUGH c modeling, 2.ed.	HES, J.: Compu ., Willey, 1997	ter Graphics: Prin	ciples and		
Course language	:						
Notes:							
Course assessment Total number of assessed students: 297							
Α	В	С	D	Е	FX		
13.8	10.44	13.8	23.57	29.97	8.42		
Provides: doc. RNDr. Jozef Jirásek, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.							
Date of last modification: 03.05.2015							
Approved:							
University: P. J. Šafái	rik University in Košice						
--	---						
Faculty: Faculty of S	cience						
Course ID: ÚINF/ UNS1/15	Course name: Introduction to neural networks						
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 28 esent						
Number of ECTS cro	edits: 5						
Recommended seme	ster/trimester of the course: 1., 3.						
Course level: I., II.							
Prerequisities:							
Conditions for cours The condition for pas networks, successful algorithms, as well as	e completion: ssing the course is the realization of a project with the application of neural completion of two written tests in the field of neural networks and genetic s successful completion of the written and oral part of the exam.						
The result of the education algorithms. The stude analysis and also wor	ation is an understanding of the basic principles of neural networks and genetic ent will gain the ability to apply the acquired knowledge in intelligent data k with a selected tool for modeling neural networks.						
 Brief outline of the c 1. Basic concept arisin calculable by thresho 2. Perceptrons. Linea learning rule, higher of 3. Forward neural n method. 4. Recurrent neural n energy function, learn 5. Model of gradually recognition phase, sea 6. Applications of stu 7. Written test I. 	ourse: ng from biology. Linear threshold units, polynomial threshold units, functions ld units. r separable objects, adaptation process (learning), convergence of perceptron order perceptrons. networks, hidden neurons, adaptation process (learning), backpropagation networks. Hopfield neural networks, properties, associative memory model, ning, optimization problems (business traveler problem). r created network. ART network, architecture, operations, initialization phase, arch and adaptation phase. Use of the ART network. idied models in solving practical problems.						
 8. Motivation to mod 9. Genetic programm blind algorithm and c 10. Genetic and evolu 11. Special technique algorithms. 12. Use of genetic alg 13. Written test II 	el genetic elements. Genetic algorithm. Application of genetic algorithms. ing, root trees, Read's linear code. Basic stochastic optimization algorithms: limbing algorithm. Forbidden search method. ationary programming with typing, examples of use. Grammatical evolution. les of evolutionary computations. Selection mechanisms in evolutionary gorithms in training neural networks. Artificial life.						

Recommended literature:

1. AGGARWAL, Charu C. Neural networks and deep learning: a textbook. Cham: Springer, 2018. ISBN 978-3319944623.

2. KVASNIČKA, Vladimír. Úvod do teórie neurónových sietí. [Slovenská republika]: IRIS, 1997. ISBN 80-88778-30-1.

3. KVASNIČKA, Vladimír. Evolučné algoritmy. Bratislava: Vydavateľstvo STU, 2000. Edícia vysokoškolských učebníc. ISBN 80-227-1377-5.

4. MITCHEL, Melanie. An Introduction to Genetic Algorithms. Cambridge: MIT Press, 2002. ISBN 0-262-63185-7.

5. SINČÁK, Peter, ANDREJKOVÁ, G. Úvod do neurónových sietí, I. diel, Košice: ELFA, 1996. ISBN 808878638X

Course language:

Slovak or English

Notes:

Content prerequisites:

Basics of programming in Python, or another alternative programming language suitable for data analysis

Course assessment

Total number of assessed students: 439

А	В	С	D	Е	FX
14.12	17.08	22.55	19.13	22.78	4.33

Provides: RNDr. Ľubomír Antoni, PhD., RNDr. Šimon Horvát

Date of last modification: 26.08.2021

Approved:

University: P I	Šafárik Univers	sity in Košice						
Faculty: Faculty of Science								
Course ID: ÚIN LOP1/15	ourse ID: ÚINF/ Course name: Logic programming OP1/15 Course name: Logic programming							
Course type, sco Course type: L Recommended Per week: 2 / 2 Course method	Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present							
Number of ECT	S credits: 5							
Recommended s	semester/trimes	ster of the cours	e: 2., 4.					
Course level: I.,	II.							
Prerequisities:								
Conditions for c	ourse completi	on:						
Learning outcome To learn bases of and basic metho	nes: declarative pro ds of implemen	gramming (as cor tations of logic pr	nplementary me ogramming lang	thod to procedura guages.	ll programming)			
Facts and rules i backtrack in Pro Functors and op Cycles (repeat-fa expressions.	n Prolog. Unificiolog. Computational computation of the second se	cation of terms (I ional step and co posed terms. Prec ates related to ba	Robinson's unificomputational treational treational treational treational treation of the second sec	cation algorithm) e. Classification and output. Dy edicates evaluation	Recursion and of terms. Lists. namic database. ng of arithmetic			
Recommended I Bratko, I.: Prolo Nilsson U., Mali Nienhuys-Cheng 1997	Recommended literature: Bratko, I.: Prolog – programming for artificial intelligence, third edition. Addison-Wesley, 2001 Nilsson U., Maluszynski J.: Logic, Programming and Prolog, John Wiley & Sons Ltd. 1995 Nienhuys-Cheng Sh.H., Wolf R.: Foundations of Inductive Logic Programming, Springer-Verlag, 1997							
Course languag	e:							
Notes:								
Course assessment Total number of assessed students: 284								
А	B C D E FX							
22.18 12.68 14.08 24.3 25.0 1.76								
Provides: doc. R	NDr. Ondrej Kı	rídlo, PhD., prof.	RNDr. Stanislav	v Krajči, PhD.				
Date of last mod	lification: 03.05	5.2015						
Approved:								

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	y of Science						
Course ID: ÚM DPU/14	Course ID: ÚMV/ DPU/14Course name: Magister thesis and its defense						
Course type, sc Course type: Recommended Per week: Per Course metho	ope and the met d course-load (h r study period: d: present	thod: ours):					
Number of ECT	FS credits: 15						
Recommended	semester/trimes	ster of the cours	e:				
Course level: II							
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	mes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag Slovak	ge:						
Notes:							
Course assessm Total number of	ent f assessed studen	ts: 30					
А	A B C D E FX						
76.67	76.67 10.0 3.33 6.67 3.33 0.0						
Provides:		•		•			
Date of last mo	dification: 03.05	5.2015					
Approved:							

University: P. J. Šafárik University in Košice							
Faculty: Faculty	of Science						
Course ID: ÚMV MST/19	ÚMV/ Course name: Mathematical statistics						
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present							
Number of ECT	S credits: 5						
Recommended s	emester/trimes	ter of the cours	e: 1.				
Course level: I.,	II.						
Prerequisities:							
Conditions for c To obtain at least tests and oral exa	ourse completi t 50% in two wa am.	on: ritten tests during	g the semester. T	Fotal evaluation b	based on written		
Learning outcon Student should of theoretical know	nes: obtain the know ledge in practica	vledge about ba al problems solvi	sic statistical m	ethods and the	ability to apply		
Brief outline of t Random vectors Correlation and distributions and and their prope construction.Test searching optima	the course: s, their distrib regression, pro- characteristics. erties. Maximus ting of statistica al critical region	utions and cha operties of corr Some important m likelihood m al hypothesis, cr s. Some importan	racteristics. Joi elation coefficie statistics and the ethod. Interval itical region, lev nt parametric and	nt and margina ent. Random sau eir distributions. estimates, confivel of significance d nonparametric	al distributions. mple, sampling Point estimators fidence interval ce. Methods for tests.		
 Recommended literature: 1. Skřivánková V.: Pravdepodobnosť v príkladoch, UPJŠ, Košice, 2006 (in Slovak) 2. Skřivánková VHančová M.: Štatistika v príkladoch, UPJŠ, Košice, 2005 (in Slovak) 3. CASELLA, G., BERGER, R., Statistical Inference, 2nd ed., Duxbury Press, 2002 4. DeGroot, M. H., Schervish, M. J.: Probability and Statistics, 4th ed., Pearson, Boston, 2012 5. Utts, J.M., Heckard, R.F.: Mind od Statistics, 5th ed., Thomson Brooks/Cole, 2014 6. Anděl J.: Základy matematické statistiky, MatfyzPress, Praha, 2011 (in Czech) 							
Course language: Slovak							
Notes:							
Course assessment Total number of assessed students: 125							
A	В	С	D	E	FX		
20.8	21.6	15.2	21.6	13.6	7.2		

Provides: RNDr. Martina Hančová, PhD.

Date of last modification: 18.03.2019

Approved:

University: P. J. Š	Šafárik Univers	ity in Košice					
Faculty: Faculty	of Science						
Course ID: ÚMV MDM/14	Course ID: ÚMV/ MDM/14Course name: Mathematics and didactics of mathematics						
Course type, scop Course type: Recommended Per week: Per s Course method:	pe and the met course-load (h study period: : present	thod: ours):					
Number of ECTS	S credits: 1						
Recommended se	emester/trimes	ster of the cours	e:				
Course level: II.							
Prerequisities: Ú	MV/DDMa/14	,ÚMV/DDMb/14	1				
Conditions for co Acquiring the req	ourse completi Juired number o	on: of credits in the s	tructure defined	by the study plan	1.		
Learning outcom Evaluation of stud	nes: dent's compete	nces with respect	t to the profile o	f the graduate.			
Brief outline of t	he course:						
Recommended li	terature:						
Course language Slovak	:						
Notes:							
Course assessme Total number of a	nt assessed studen	ts: 75					
A	A B C D E FX						
28.0	28.0 24.0 22.67 16.0 9.33 0.0						
Provides:				•	•		
Date of last modi	ification: 03.05	5.2015					
Approved:							

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚFV/ FEP1/07	Course name: Microcomputer Based Science Laboratory
Course type, scope a Course type: Lectur Recommended cour Per week: 1 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 14 / 28 esent
Number of ECTS cro	edits: 4
Recommended seme	ster/trimester of the course:
Course level: II.	
Prerequisities:	
Conditions for cours test 30 points active participation 1 project (development points The final assessment	e completion: 0 points t of mathematical model, videomeasurement and physical experiment) 60 is based on the sum of partial results
Learning outcomes: After the course stude active learning in sci the help of dataloggin Student is able to in conceptual understan	ent gains an overview about the possible use of digital technologies to support ience. He gains skills to use and develop activities on measuring data with ng, measuring on picture and viderecording and modeling natural processes. nplement such activities in science teaching to support active learning and ding.
Brief outline of the c The aim of the cour in science with the l modeling is based o carry out computer-ba corresponding model emphasize is put on t ' learning.	ourse: see is to present the use of digital technologies to enhance active learning help of datalogging, videomeasurement and modeling tools. Mathematical on dynamical modeling of natural phenomena. Within the course students ased experiments, videomeasurements and measurement on picture and create ls. The activities involve selected topics of secondary schools science. The he methods of implementation of the activities with regard to active students
Recommended litera [1]Koubek, V., Pecen podporovanom labora [2]Príručka COACH [3]http://physedu.scie	n ture: I, I.: Fyzikálne experimenty a modely v školskom mikropočítačom atóriu, Univerzita Komenského, Bratislava, 1999 ence.upjs.sk/sis/fyzika/experimenty/index.htm
Course language:	
Notes.	
110105.	

Course assessment Total number of assessed students: 34							
A B C D E FX							
44.12	44.12 44.12 11.76 0.0 0.0 0.0						
Provides: doc. RNDr. Zuzana Ješková, PhD.							
Date of last modification: 03.05.2015							
Approved:							

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: KPPaPZ/SNP/09	Course name: Mobbing, Violence and Their Prevention
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent edits: 2
Recommended seme	ster/trimester of the course: 1., 3.
Course level: II.	
Prerequisities:	
Conditions for cours Active participation i Active participation - Seminar work - 40% Seminar work 2 - 40%	e completion: n seminars. Detailed information will be given. 20%
Learning outcomes: The student will acq about solving proble of prevention. With implementation of pr and their willingness	uire the latest information about bullying in schools and its consequences, ematic situations associated with bullying as well as about possible ways in the seminars, students will develop professional skills through the evention activities. At the same time, their sensitivity to the issue of bullying to actively address it during their pedagogical practice will increase.
Brief outline of the c Aggressive behavior. environment). Manife role of teacher, school level of school, class, activities used in the	ourse: Characteristics of actors of bullying (personality, characteristics of family estations and possible causes of bullying. Bullying as a group process. The l and parent in solving bullying. Possibilities of prevention of bullying at the individuals. Primary, secondary and tertiary prevention. Socio-psychological prevention of bullying.
Recommended litera Kolář, M.: Bolest šik 2001 Jánošová a kol. Psych Říčan, P.: Agresivita	t ure: anování. Cesta k zastavení epidemie šikanování ve školách. Portál, Praha, nologie školní šikany. Grada, Praha, 2016 a šikana mezi dětmi. Portál, Praha, 1995

Course language:

Notes:

Course assessment Total number of assessed students: 143							
A B C D E FX							
80.42	80.42 17.48 1.4 0.7 0.0 0.0						
Provides: Mgr. Mária Bačíková, PhD.							
Date of last modification: 24.06.2021							
Approved:							

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚFV/ MDT06/19	Course name: Modern Didactical Technology
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent
Number of ECTS cr	edits: 2
Recommended seme	ster/trimester of the course: 2.
Course level: II.	
Prerequisities:	
Conditions for course All assignments must criteria. Active participation a	e completion: be uploaded by a student and accepted by a teacher according to assessment at the seminar with minimum 80% participation.
 recognise basic tool to use all types of a to design and realist 	s for teaching activities, ctuall tools in education of science or humanities, e educational activities by using modern technologies.
 Brief outline of the c 0. Introduction 1. Cloud services 2. Digital notebooks 3. Digital imaging 4. Digital image proc 5. Digital text proces 6. Digital audio proce 7. Digital video, proc 8. Google online serv 9. Interactive didaction 10. Computer based 11 11. Digital technolog 12. Didigital teacher 	ourse: essing sing essing essing, videoconferencing vices cal system (whiteboard, e-voting system, tablet) aboratories ies and virtual experiments s workspace
Recommended litera 1. Kireš, M. et al.: M 788080861353 2. actuall information 3. catalogues of teach 3. actuall articles abo	ture: odern didactical technics in teacher practice, Košice: Elfa, 2010, ISBN from web sites related to didactical technologies, ning tools, ut modern trends in science and humanities education.

Course langua Slovak, Englisl	ge: 1						
Notes:							
Course assessm Total number o	nent f assessed studen	.ts: 59					
А	В	С	D	E	FX		
38.98	.98 40.68 13.56 3.39 3.39 0.0						
Provides: doc.	RNDr. Jozef Han	č, PhD.					
Date of last mo	odification: 31.03	3.2020					
Approved:							

University: P. J.	Šafárik Univers	ity in Košice						
Faculty: Faculty	y of Science							
Course ID: KPI PDK/17	E/ Course na	me: Pedagogica	1 Communication	n				
Course type, sc Course type: F Recommended Per week: 2 Pe Course method	ope and the met Practice I course-load (h er study period: d: present	thod: ours): 28						
Number of ECT	FS credits: 2							
Recommended	semester/trimes	ster of the cours	e: 1.					
Course level: II	•							
Prerequisities:								
Conditions for a	course completi	on:						
Learning outco	mes:							
Brief outline of	the course:							
Recommended	literature:							
Course languag	ge:							
Notes:								
Course assessm Total number of	ent f assessed studen	ts: 65						
А	A B C D E FX							
73.85	73.85 23.08 3.08 0.0 0.0 0.0							
Provides: PaedI	Dr. Michal Novo	cký, PhD.		<u>I</u>	<u></u>			
Date of last mo	dification: 08.06	5.2021						
Approved:								

University: P. J.	. Šafárik Univers	sity in Košice						
Faculty: Faculty	y of Science							
Course ID: KPI PDD/17	E/ Course n a	ame: Pedagogica	l Diagnostics					
Course type, sc Course type: F Recommended Per week: 2 Pe Course metho	ope and the me Practice I course-load (h er study period: d: present	thod: ours): 28						
Number of EC	FS credits: 2							
Recommended	semester/trime	ster of the cours	e: 2.					
Course level: II								
Prerequisities:								
Conditions for	course completi	ion:						
Learning outco	mes:							
Brief outline of	the course:							
Recommended	literature:							
Course languag	ge:							
Notes:								
Course assessm Total number of	ent f assessed studen	its: 45						
А	A B C D E FX							
84.44	84.44 8.89 6.67 0.0 0.0 0.0							
Provides: PaedI	Dr. Michal Novo	cký, PhD.		<u>. </u>	<u> </u>			
Date of last mo	dification: 08.06	5.2021						
Approved:								

University: P. J. Šaf	árik University in Košice				
Faculty: Faculty of	Science				
Course ID: KPE/ PPD/15Course name: Pedagogy and Psychology					
Course type, scope Course type: Recommended cou Per week: Per stu Course method: p	and the method: urse-load (hours): dy period: resent				
Number of ECTS credits: 1					

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: KPE/PDU/15,KPPaPZ/PPgU/15

Conditions for course completion:

Obtaining the required number of credits in the prescribed composition by the study plan.

Learning outcomes:

Verification of the acquired competencies of the student in accordance with the profile of the graduate.ie required number of credits in the prescribed composition by the study plan.

Brief outline of the course:

Pedagogy: 1. Pedagogy, basic pedagogical categories, system of pedagogical scientific disciplines. 2. Education, pages and functions of education, educational process, self-education.3. Factors of education, educated individual, pedagogue, pedagogical profession, professional competencies.4. School education, family education. 5. Educational goals, taxonomy, requirements, classification of educational goals.6. Methods of education. 7. Pedagogical principles. 8. School system of the Slovak Republic. 9. Didactics, basic questions of didactics, current starting points of didactics. 10. Objectives of the teaching process, the teacher's work with the objectives of teaching.11. Content of education, basic curriculum, extension curriculum, elements and components of curriculum. 12. Assessment in school education, types, functions and criteria of assessment.13. Pedagogical control, methods and forms of pedagogical control.14. Teacher's work planning, written preparation of the teacher for teaching.15. Teaching process, stages of the teaching process and their didactic functions.16. Organizational forms of teaching, lesson, stages, types of lessons.17. Teaching methods, classification, functions, selection of teaching methods. 18. Didactic principles of the teaching process. 19. Basic pedagogical documents, textbook, functions and structural components of the textbook.20. Current concepts of the teaching process.

Psychology: 1.Psychology as a science, goals and subject of psychology in terms of influential psychological directions.2.Pedagogical psychology in teacher training, its subject, function.3.Psychology in school practice: professional forms of control and assistance, psychological examination, counseling process. Crisis intervention. Code of ethics.4.Psychology in school practice: approaches and models of prevention, prevention spectrum, protective and risk factors of risk behavior of schoolchildren in the context of the theory of triadic influence.5.Psychology in school practice: effective strategies for prevention of substance use.6.Psychology of education from the point of view of psychodynamic approach (Psychoanalysis and Individual Psychology) .7.Psychology of education from the point of

view of humanistic psychology.8.Psychology of education from the point of view of cognitive psychology.9.Psychology of learning and types of learning supplemented by examples from school practice. / success in the context of individual theories of cognitive development.11. Nutritional peculiarities, school non-success / intelligence in terms of intelligence.12. Memory and developmental peculiarities, school non-success 13. Attention and developmental peculiarities, school non / success peculiarities of individual types of family, educational styles.15.Social relations at school, me modes of cognition of interaction U and Ž. Psychosocial climate of school class and school, methods of cognition, sociometry.16.Social influence: presence of others, interpersonal influences and meaningful understanding of social influence in teacher's work.17.Teacher as a professional, his professional ability, teaching style, attitudes towards students, expectations towards students, coping with stress, burnout syndrome.18.Students: gifted and talented, school failure, non-thriving pupils and failing pupils, pupils' self-efficacy.19. Types of research plans and their creation (setting goals, hypotheses, variables, selection of research sample) in the context of pedagogical-psychological research.20. Selected methods of pedagogicalpsychological research - questionnaire, interview, observation and possibilities of their use in school practice.

Recommended literature:

Pedagogika:

Čapek, R. (2016). Moderní didaktika. Praha: Grada.

Dytrtová, R., Krhutová, M. (2009). Učitel. Příprava na profesi. Praha: Grada.

Kalhous, Z., Obst, O. (2002). Školní didaktika. Praha: Portál.

Petlák, E. (2016). Všeobecná didaktika. Bratislava: Iris.

Petlák, E. (2005). Kapitoly zo súčasnej didaktiky. Bratislava: IRIS.

Prucha, J. (2017). Moderní pedagogika. Praha: Portál.

Turek, I. (2014). Didaktika. Bratislava: Wolters Kluwer.

Vališová, A., Kasíková, H. (2010). Pedagogika pro učitele. Praha: Grada.

Zormanová, L. (2014). Obecná didaktika. Praha: Grada.

Psychológia:

Mareš, J. (2013). Pedagogická psychologie. Praha : Grada.

Mareš, J., ČÁP, J. (2001). Psychologie pro učitele. Praha: Portál.

Džuka, J. (2003). Základy pedagogickej psychológie. Prešov: UK.

Orosová, O. a kol. (2005). Psychológia a pedagogická psychológia 1. Košice: UPJŠ.

Orosová, O. a kol. (2012). Základy prevencie užívania drog a problematického používania internetu v školskej praxi. Košice: UPJŠ.

Bačíková, M., Janovská, A. (2019). Základy metodológie pedagogicko-psychologického

výskumu. Sprievodca pre študentov učiteľstva. 2. rozšírené vydanie. Šafárik press, Košice.

Gavora, P. a kol. (2010). Elektronická učebnica pedagogického výskumu. Bratislava: Univerzita Komenského. Dostupné online na www. e-metodologia. fedu. uniba. sk.

Vágnerová, M. (2005). Základy psychológie. Praha : Karolinum.

Vágnerová, M. (2005). Vývojová psychológie. Praha : Karolinum.

Vágnerová, M. (2005). Škoní podadenská psychologie pro pedagogy. Praha : Karolinum.

Výrost, J., Slaměník, I. (2008). Sociální psychologie. Praha : Grada.

Výrost, J., Salměník, I. (1998). Aplikovaná sociální psychológie I. Praha: Portál. Strana: 2

Fontana, D. (1997). Psychologie ve školní praxi. Praha: Portál.

Zelina, M. (2011). Stratégie a metódy rozvoja osobnosti dieťaťa: (metódy výchovy). Bratislava, Iris.

Křivohlavý, J. (2004). Pozitívni psychologie. Praha: Portál.

Křivohlavý, J. (2003). Psychologie zdraví. Praha: Portál.

Course languag	ge:							
Notes:								
Course assessm Total number of	tent f assessed student	ts: 508						
А	В	С	D	Е	FX			
28.35	27.17	25.98	15.16	3.15	0.2			
Provides:								
Date of last mo	dification: 07.06	.2021						
Approved:								

	· · · · · · · · · · · · · · · · · · ·					
University: P. J. Safárik University in Košice						
Faculty: Faculty of Science						
Course ID: ÚINF/ PDSI1/15	: ÚINF/ Course name: Pro-seminar to diploma thesis in informatics					
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the course	e: 1.				
Course level: II.						
Prerequisities:						
Conditions for cours	e completion:					
Learning outcomes: To inform students a end of semester stude literature.	bout areas of informatics the ents have to prepared themes	ey are suitable to work in diploma theses. In the of diploma theses, goals and recommended study				
Brief outline of the c	Brief outline of the course:					
The seminar is oriented to problems prospective to preparations of Diploma theses.						
Recommended litera MEŠKO, D., KATUŠ 2004. 316 s. ISBN 80 ISO 690: 1987 Docu ISO 2145: 1978 Docu Eco, U.: Jak napsat d Olomouc, Votobiax. Odborná a vedecká li diplomovej práce.	Ature: ŠČÁK, D. Akademická príru D-8063-150-6 mentation - Bibliographic re umentation - Numbering of o iplomovou práci, z taliančin iteratúra týkajúca sa diplomo	čka. 1. vyd. Vydavateľstvo Osveta : Martin, ferences. Content, form and structure. livisions and subdivisions in written documents. y Come si fa una tesi di laures, Milano, 1977, ovej práce podľa odporúčania vedúceho				
Course language:						
Notes:						
Course assessment Total number of assessed students: 72						
abs n						
	97.22 2.78					
Provides: doc. RNDr	Provides: doc. RNDr. Ľubomír Šnajder, PhD.					
Date of last modifica	ition: 03.05.2015					
Approved:						
L						

University: P. J. Safarik University in Kosice						
Faculty: Faculty of Science						
Course ID: KPPaPZ/PASZ/17Course name: Problem and Aggressive Behaviour of Pupils. Etiology, Prevention and Intervention.						
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present						
Number of ECTS credits: 2						
Recommended semester/trimester of the course: 2.						
Course level: II.						
Prerequisities:						
Conditions for course completion:						
Learning outcomes:						
General principles of mental development as a basis for recognizing mental disorders in children and adolescents. Etiology of mental disorders and developmental disorders in children and adolescents. Definition of aggressive behavior. Concepts of aggression vs. aggressiveness. Theoretical approaches to aggression. Causes and factors of aggressive behavior. Violence at school and in the family. Bullying. Psychology of problem students. Problems resulting from disturbed behavior. Problems arising from group relationships. Adolescent lifestyle issues. Problems resulting from impaired emotional experience. Solving problematic and aggressive behavior in the school environment. School classroom management, group preventive and intervention work with the classroom. Crisis intervention. Work with parents of problem students. Principles of interviewing a parent. Cooperation with other experts. Prevention of aggressive and problematic behavior at school. Classroom and school climate, school prevention programs. Viac o tomto zdrojovom texteNa získanie d'alších informácií o preklade sa vyžaduje zdrojový text Odoslať spätnú väzbu Bočné panely						
Recommended literature:						
Course language:						
Notes:						
Course assessment Total number of assessed students: 49						
A B C D E FX						
65.31 26.53 8.16 0.0 0.0 0.0						
Provides: PhDr. Anna Janovská, PhD.						
Date of last modification: 28.06.2021						

Approved:

	COURSE INFORMATION LETTER
University: P. J. Šafán	rik University in Košice
Faculty: Faculty of So	cience
Course ID: KPPaPZ/KPE/ EPU/15	Course name: Professional Ethics for Teachers and School Counsellors
Course type, scope an Course type: Practic Recommended cour Per week: 2 Per stue Course method: pre	nd the method: e rse-load (hours): dy period: 28 sent
Number of ECTS cre	edits: 2
Recommended semes	ster/trimester of the course: 2., 4.
Course level: II.	
Prerequisities:	
1. Active participation Preparation (descripti during the semester, t 77 - 86, C 69 - 76, D 6 of the course in AIS2	n in seminars (max. 1 absence) - 30p, 2. Preparation for the seminar - 40p, 3. on and analysis) of the moral dilemma - 30p. By summing the points obtained the student obtains the final evaluation according to the scale: A 87 - 100, B 51 - 68, E 56 - 60, FX 55 and less. Detailed information in the electronic board . The teaching of the subject will be realized by a combined method.
Learning outcomes: The student will und counselor as one of the the ethical and moral in (including the formula the function of the ed and solve practical m professional skills of context thanks to the	lerstand the principles of teacher ethics and the ethics of the educational the branch types of professional ethics. The student can theoretically reflect on issues of the teaching profession and the function of the educational counselor ation of moral values, principles and standards of the teaching profession and ducational counselor in the form of codes of ethics). He is able to analyze noral problems in pedagogical practice, which supports the development of students. The student is able to critically evaluate situations with a moral opportunity to discuss moral and ethical issues in an open way.
Brief outline of the co Moral emotions (theo their manifestations) Development of mora (Piaget, Kohlberg, Gi Moral behavior (from intelligence in the wo Possibilities of exar conformity, obedience judgment) Morality and professional of ethics Professional ethics of of teacher ethics) and	burse: bries of emotion, the center of emotions in the brain, types of emotions and al reasoning, cognitive approaches to moral reasoning and their comparison lligan, Eisenberg, Selman, Lind), the point of view of learning theories) and moral (vs. social and emotional) rk of a teacher nining moral behavior and judgment (socio-psychological research of e, aggression and psychodiagnostic approaches to the determination of moral ional ethics in general (ethical principles in helping professions) and codes the teacher and educational counselor (terminology, concepts, main principles teacher ethics codes

Moral dilemmas and ways of solving them, MD of teaching practice

Possibilities of influencing and stimulating moral judgment, use of moral dilemma in education Cheating and other unethical manifestations in the school environment, ethics and etiquette of final exams

Recommended literature:

Ráczová, Babinčák, P. Základy psychológie morálky. Košice : Equilibria, 2009. - 130 s. ISBN 9788070977866 (brož.).

Gluchmanová, M. K niektorým terminologickým otázkam učiteľskej etiky. Pedagogická orientace 2007, č. 2, s. 11–25. ISSN 1211-4669.

Malankievičová, S. Profesijná etika: FF PU. 2008.

Miezgová J., Vargová, D. Etika. SPN Mladé letá 2007.

Remišová A. Dejiny etického myslela v Európe a USA. Bratislava, Kalligram 2008.

Zelina, M. Teória výchovy alebo hľadanie dobra. Bratislava SPN 2010.

Gluchmanová, M. Uplatnenie princípov a hodnôt etiky sociálnych dôsledkov v učiteľskej etike. Prešov: FF PU,2009. 222 s. ISBN 978-80-555-0042-3

Campbell, E. The Ethical Teacher. Berkshire (England): Open University Press, 2003. 178 s. ISBN 03-3521-219-0.

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 374

А	В	С	D	Е	FX		
95.99	3.48	0.53	0.0	0.0	0.0		
Provides: Mgr. Lucia Barbierik, PhD.							
Date of last modification: 25.06.2021							

Approved:

University: P. J. Šaf	čárik University in Košice
Faculty: Faculty of	Science
Course ID: ÚINF/ JAC1/15	Course name: Programming language C
Course type, scope Course type: Pract Recommended co Per week: 2 Per st Course method: p	and the method: tice urse-load (hours): cudy period: 28 resent
Number of ECTS c	eredits: 2
Recommended sem	nester/trimester of the course: 1., 3.
Course level: I., II.	
Prerequisities:	
Conditions for cou Practics attendance Final project.	r se completion: and activity. Home assigment
Learning outcomes Become skilled in 1 development in low	anguage C and get knowledge of the theoretical concepts that are used in the r-level software.
 Brief outline of the 1. Installing and serunning. 2. Loops, condition with `gcc` and settin 3. Functions. Statica 4. Basic I/O function 5. Dynamic memoriarrays. Strings and the 6. String manipulation 7. Working with bir 8. Custom data type 9. Dynamic data stripolity 10. Additional operational operation 11. Useful tricks and arrays. 12. Function pointe 	course: Itting up the development environment. Simple program in C, compiling and s. Introduction to arrays. Numeric functions from numeric library. Compiling ng up the warnings and hints. ally allocated arrays. Array gotchas in C. Makefiles for complex projects. ns. Functions with array parameters and specifics. y allocation as a mechanism for dynamic arrays. Strings as a special case of file I/O. ion principles and functions from standard library. mary files. s. Structs. uctures. Linked lists. Stacks and operations with these structs. ations with dynamic data structures. Parameter passing with values and name. I hints: passing parameters from operating system, exit codes. Multidimensional rs. Generic pointers. Unions.
Recommended liter 1. KERNIGHAN, E 2006. ISBN:802510 2. PRATA, Stephen 9780321928429. 3. SEACORD, Rob Francisco, United S	rature: Brian W., Dennis M. RITCHIE. Programovací jazyk C. Brno: Computer Press, 0897X. . C Primer Plus. 6th Edition. Addison-Wesley Professional, 2014. ISBN ert C. Effective C: An Introduction to Professional C Programming. San tates: No Starch Press, 2020. ISBN 9781718501041.

Course languag Slovak or Engli	ge: ish						
Notes:							
Course assessment Total number of assessed students: 218							
А	В	C D E FX					
34.4	19.27 17.43 14.22 10.55 4.13						
Provides: RNDr. PhDr. Peter Pisarčík, RNDr. Patrik Pekarčík							
Date of last modification: 12.07.2021							
Approved:							

University: P. J. Šafá	rik University in Košice						
Faculty: Faculty of Science							
Course ID: KPPaPZ/PPgU/15	Course name: Psychology and Educational Psychology						
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 28 esent						
Number of ECIS cr							
Recommended seme	ster/trimester of the course: 1.						
Course level: II.							
Prerequisities:							
Conditions for cours Combined method. Assessment Maximum Exam entry criteria: A semester. Continuous assessme Final evaluation: A 94-100 B 93-87 C 86-80 D 79-73 E 72- 66 FX 65 -0 Electronic board of th	m 50 points during the semester (Three assignments). Active participation in exercises and at least 35 points obtained during the ent (50%) and written examination (50%) / 10 questions.						
Learning outcomes: Students will be able Students will be ab psychological concep Students will be able Students will be able	to show understanding of the human behaviour in educational situations. le to describe, explain and justify possible teachers' decisions by using ots, principles and theories. to apply the psychological findings in the field of education. to explain how adolescents learn and retain new information, to explain their						

behaviour in response to educational environment.

Students will be able to explain the desired data-based modification of adolescents' behaviour to bring an all-round development of his personality and school performance, to explain the desired data-based modification of the behaviour of adolescents with educational problems, with disadvantages.

Brief outline of the course:

Introduction: The content of the course is based on current knowledge of psychological disciplines, especially pedagogical and school psychology.

Teaching is realized by a combination of lectures with engaging narrative interpretation and seminars using interactive, experiential methods, discussion and open communication with mutual respect, support of independence, activity and motivation of students.

Syllabus: The subject and goals of psychology and educational psychology. Professional forms of help in school practice.

Implementation of psychological concepts of personality into school practice (Classical and contemporary psychoanalytic theory, Individual psychology, Humanistic psychology, Concept of creative-humanistic education; Cognitivism and Theory of personal constructs). Social psychology of school and family. Learning and teaching. Health and disease; risk / protective factors with healthy related risk behavior. Psychology of students with behavioral and learning problems. Psychology of students with psychosocial, socio-cultural, health disadvantages. Psychological examination. Consulting process. Crisis intervention. Programs for prevention of risky behavior of schoolchildren.

Recommended literature:

Mareš, J.: Pedagogická psychologie. Praha : Grada 2013.

Mareš, J., & ČÁP, J.: Psychologie pro učitele. Praha: Portál, 2001.

Džuka, J.: Základy pedagogickej psychológie. Prešov: UK 2003.

Orosová, O. a kol: Psychológia a pedagogická psychológia 1. Košice: UPJŠ, 2005.

Orosová, O. a kol.: Základy prevencie užívania drog a problematického používania internetu v školskej praxi. Košice: UPJŠ 2012.

Vágnerová, M.: Základy psychológie. Praha : Karolinum 2005.

Vágnerová, M.: Vývojová psychológie. Praha : Karolinum 2005.

Vágnerová, M.: Škoní podadenská psychologie pro pedagogy. Praha : Karolinum 2005. Výrost,

J., Slaměník, I.: Sociální psychologie. Praha : Grada 2008.

Výrost, J., Salměník, I.: Aplikovaná sociální psychológie I. Praha: Portál 1998.

Fontana, D. : Psychologie ve školní praxi. Praha: Portál 1997.

Zelina, M.: Stratégie a metódy rozvoja osobnosti. Bratislava, Iris: 1996.

Křivohlavý, J.: Pozitívni psychologie. Praha: Portál 2004.

Křivohlavý, J.: Psychologie zdraví. Praha: Portál 2003.

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 1432

А	В	С	D	Е	FX
10.47	18.37	23.04	23.25	22.0	2.86

Provides: prof. PhDr. Oľga Orosová, CSc., Mgr. Lucia Barbierik, PhD., PhDr. Anna Janovská, PhD.

Date of last modification: 24.06.2021

Approved:

University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science				
Course ID: KPPaPZ/PTPN/17	Course name: Psychology of Creativity and Working with Gifted Students in Teacher Practice			
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present			
Number of ECTS cro	edits: 2			
Recommended seme	ster/trimester of the course: 2.			
Course level: II.				
Prerequisities:				
Conditions for cours 1. active participation seminar work - 30p. final evaluation accor FX 55 and less. Deta of the subject will be	the completion: In in lessons (max. 2 absences) - 30p, 2. own output at the seminar - 40p, 3. By summing the points obtained during the semester, the student obtains the rading to the given scale: A 87 - 100, B 77 - 86, C 69 - 76, D 61 - 68, E 56 - 60, illed information in the electronic board of the course in AIS2. The teaching realized by a combined method.			
Learning outcomes: The student understands the basic factors and process of creativity. The student is able to explain the specifics of working with the gifted. He knows the methods of identifying talent and also can apply methods to support creativity and the development of talent in the implementation of creative creativity in education.				
Brief outline of the course: The concept of creativity. A brief history of the theory of creativity. Social, psychological and biological factors of creativity. Cognitive processes in creativity. Creativity and cognitive style. Development of creativity. Talent and giftedness. Methods of determining creativity and talent. Methods of developing creativity and talent. Creativity and talent development programs. Specifics of working with the gifted children.				
 Recommended Interature: DOČKAL, V. (2006): Inteligencia a tvorivosť, tvorivé nadanie od intelektovej schopnosti po štruktúru osobnosti. In: KUSÁ, D. a kol. EDS. (2006): Zjavná a skrytá tvorivosť. Bratislava: Slovak Academic Press HŘÍBKOVÁ, L. (2009): Nadání a nadaní. Pedagogicko- psychologické přístupy, modely, výzkumy a jejich vztah ke školské praxi. Praha: Grada Publishing DACEY, J.S LENNON, K.H. (2000): Kreativita. Praha: Grada 				

GROSS, M.U.M. (2009): Highly Gifted Young People: Development from Childhood to Adulthood. In: SHAVININA, L. (2009): International Handbook on Giftedness. Part one. Springer

KUSÁ, D. a kol. EDS. (2006): Zjavná a skrytá tvorivosť. Bratislava: Slovak Academic Press KOLKOVÁ, S. (2000): Tvorivosť a jej rozvoj vo voľnočasových aktivitách detí (v školskom klube). Bratislava: Metodické centrum v Bratislave

LOKŠOVÁ, I., - LOKŠA, J.: (2003): Tvořivé vyučování. Praha: Grada

LAZNIBATOVÁ, J. (2004): Špecifiká vývinu a vzdelávania nadaných detí. In: Psychológia a patopsychológia dieťaťa, roč.39, č. 2-3

LAZNIBATOVÁ, J. (2001): Nadané dieťa, jeho vývin, vzdelávanie a podporovanie. Bratislava: Iris

MESÁROŠOVÁ, M. (1998): Nadané deti. Poznávanie a rozvíjanie ich osobnosti. Prešov: Manacon

SZOBIOVÁ, E. (2004): Tvorivosť – Od záhady k poznaniu. Bratislava: Stimul - Centrum informatiky a vzdelávania FIF UK

National and international scientific journlas

Course language: slovak					
Notes:					
Course assessment Total number of assessed students: 36					
А	В	С	D	Е	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: Mgr. Lucia Barbierik, PhD.					
Date of last modification: 25.06.2021					
Approved:					

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: KPPaPZ/PsZ/15	Course name: Psychology of Health
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): dy period: 28 esent
Number of ECTS cro	edits: 2
Recommended seme	ster/trimester of the course: 3.
Course level: II.	
Prerequisities:	
Conditions for cours Active participation i	e completion: n seminars, preparation and presentation of seminar work, final evaluation
Learning outcomes: The aim of the course Psychology as well a of individuals and so psychology, will be f will learn to use the a	e is to provide students with the latest knowledge and background of Health s forms of its application in order to improve the mental and physical health ociety. The graduate of the course will understand the principles of health amiliar with the current social discourse on the topics covered. The student cquired knowledge in school practice.
 Brief outline of the c 1. Health psychology 2. Mental health and 3. Physiological aspe 4. Stress. Coping, res 5. Psychosomatic dise 6. Social support and 7. Burnout syndrome 8. The meaning of lif 9. Health-related beha 10. Socio-economic i 	Durse: Definition of health. Bio-psycho-social model of health. quality of life, well being. cts of mental health, lifestyle ilience. eases, placebo. its importance for health. e, faith. wior and prevention. Risky behavior, excessive use of the Internet and screens. nequalities in health. Unemployment and health.
Recommended litera Křivohlavý, J.: Psych Kebza, V.: Psychosoc Křivohlavý, J.: Psych Sarafino, E.P.: Health Taylor, E.: Health Psy Vollrath M.E.: Handb	ture: ologie zdraví. Praha: Portál, 2001 iální determinanty zdraví. Praha: Academia, 2005 ologie nemoci. Praha : Grada, 2002 Psychology: Biopsychosocial Interactions, John Wiley & Sons, 2007 ychology. Singapore: McGraw-Hill, 2006 book of Personality and Health. Chichester: John Wiley & Sons, 2006
Course language:	
Notes:	

Course assessment Total number of assessed students: 81					
А	В	С	D	Е	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: Mgr. Mária Bačíková, PhD.					
Date of last modification: 24.06.2021					
Approved:					

University: P. J. Šafá	University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science			
Course ID: KSSFaK/ ČGUAP/15	Course name: Reading Literacy in Educational Process		
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present			
Number of ECTS cr	edits: 2		
Recommended seme	ster/trimester of the cours	e: 2.	
Course level: II.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	Recommended literature:		
Course language:	Course language:		
Notes:			
Course assessment Total number of assessed students: 25			
	abs	n	
	100.0	0.0	
Provides: doc. PaedDr. Ivica Hajdučeková, PhD.			
Date of last modification: 16.02.2019			
Approved:	Approved:		

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: ÚINF/ PPU1a/15	ourse ID: ÚINF/ Course name: Running practice PU1a/15		
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present			
Number of ECTS cr	edits: 2		
Recommended seme	ster/trimester of the cours	e: 2.	
Course level: II.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	iture:		
Course language:	Course language:		
Notes:			
Course assessment Total number of assessed students: 188			
	abs	n	
	97.34	2.66	
Provides: Ing. Miron Kuzma, PhD.			
Date of last modification: 03.05.2015			
Approved:			

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: ÚINF/ MPPb/15	Course name: Scheduled practice teaching		
Course type, scope Course type: Pract Recommended co Per week: Per stu Course method: p	and the method: ice urse-load (hours): idy period: 36s resent		
Number of ECTS c	redits: 1		
Recommended sem	lester/trimester of the course: 2.		
Course level: II.			
Prerequisities: KPE	E/MPPa/15,KPE/PDU/15,(KPPaPZ/PaSPP/09 and leboKPPaPZ/PPgU/15)		
Conditions for coun Conditions for ongo 1. Observations for 2. Independent lead 3. Participation in 6 4. Participation in a Conditions for the f 1. Submission of 11 2. Submission of a f 3. Submission of a f 4. Submission of a f 5. Submission of a f Conditions for succ Fulfillment of all or	rse completion: bing evaluation: 11 lessons of the subject of informatics. ing 1 lesson from the subject of informatics. analyzes from lessons. reflexive colloquium with a didactician of informatics. inal evaluation: observation records. project of preparation for a lesson. list of observations and own lesson of the trainee. aluation of pedagogical output of the trainee. report on ongoing pedagogical practice. essful completion of the course: ngoing and final assignments.		
Learning outcomes Students acquire kn the subject of inform first experience with	: owledge by observing the practical application of teaching skills for teaching natics and get to know the organization of school work. They also acquire their n the practical implementation of a informatics lesson.		
Brief outline of the Students observe the it with teacher traine is scheduled once a The first two lessons under the guidance	course: e process of teaching informatics at secondary and primary school and analysed er. Practice takes place continuously during the course of the semester. Practice week at the time of first to third lesson in schools. s are students observing/teaching, the third lesson is for analysis of the first two of a teacher trainer.		
Recommended liter KOSOVÁ, Beata, A učiteľov [online]. B Bystrica, 226 pp. [c publikacie.umb.sk/p	rature: Alena TOMENGOVÁ et al., 2015. Profesijná praktická príprava budúcich anská Bystrica: Vydavateľstvo Belianum, Univerzita Mateja Bela, Banská ited. 2021-7-28]. ISBN 978-80-557-0860-7. Available from: https:// publication/publicationFileDownload.php?ID=18667		

OROSOVÁ, Renáta and Zuzana BOBEROVÁ, 2016. Pregraduálna príprava učiteľov: Organizácia pedagogickej praxe na UPJŠ [online]. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 142 pp. [cited 2021-7-28]. ISBN 978-80-8152-460-8. Available from: https:// unibook.upjs.sk/sk/pedagogika/342-pregradualna-priprava-ucitelov-organizacia-pedagogickej- praxe-na-upjs BOBEROVÁ, Zuzana, 2017. Začínajúci učiteľ a školská legislatíva I. [online]. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 104 pp. [cited 2021-7-28]. ISBN 978-80-8152-490-5. Available from: https://unibook.upjs.sk/sk/pedagogika/398-zacinajuci-ucitel- a-skolska-legislativa-i Current informatics textbooks for primary and secondary schools in Slovakia.			
Course language: Slovak			
Notes: By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.			
Course assessment Total number of assessed students: 66			
abs	n		
100.0	0.0		
Provides: doc. RNDr. Ľubomír Šnajder, PhD.			
Date of last modification: 01.08.2021			
Approved:			

University: P. J. Šafá	University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science					
Course ID: ÚMV/ VPPb/15	Course name: Scheduled practice teaching				
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present					
Number of ECTS cr	edits: 1				
Recommended seme	ster/trimester of the	course: 2.			
Course level: II.					
Prerequisities: KPE/	MPPa/15,KPE/PDU/	15,(KPPaPZ/PaSPP/09 and leboKPPaPZ/PPgU/15)			
Conditions for cours	e completion:				
Learning outcomes: Enable students to gain first practical experience in teaching mathematics to apply theoretical knowledge in specific teaching situations, to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.					
Brief outline of the course:					
Recommended literature:					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 64					
	abs	n			
	100.0	0.0			
Provides: doc. RNDr. Dušan Šveda, CSc., doc. RNDr. Ingrid Semanišinová, PhD.					
Date of last modification: 03.05.2015					
Approved:	Approved:				
University: P. J. Šafá	irik University in Košice				
--	---	---	--	--	--
Faculty: Faculty of S	Science				
Course ID: ÚTVŠ/ ÚTVŠ/CM/13	Course name: Seaside Aer	robic Exercise			
Course type, scope a Course type: Practi Recommended cou Per week: Per stud Course method: co	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: combined_present				
Number of ECTS cr	redits: 2				
Recommended seme	ester/trimester of the cours	e:			
Course level: I., II.					
Prerequisities:					
Conditions for cour Conditions for cours Attendance	se completion: e completion:				
Learning outcomes: Students will be provided an overview of possibilities how to spend leisure time in seaside conditions actively and their skills in work and communication with clients will be improved. Students will acquire practical experience in organising the cultural and art-oriented events, with the aim to improve the stay and to create positive experiences for visitors.					
 Brief outline of the of Brief outline of the of Brief outline of the of Basics of seaside at Morning exercises Pilates and its app Exercises for the state Yoga basics Sport as a part of basics Sport as a part of basic Application of production of seasons Application of seasons 	course: ourse: aerobics lication in seaside conditions spine leisure time jects of productive spending ople, elderly) aside cultural and art-oriented	of leisure time for different age and social groups d activities in leisure time			
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of asse	Course assessment Total number of assessed students: 41				
	abs	n			
	12.2	87.8			

Provides: Mgr. Agata Horbacz, PhD.

Date of last modification: 15.03.2019

Approved:

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚMV/ VMA/19	Course name: Selected topics on mathematical analysis
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	nd the method: re / Practice rse-load (hours): study period: 28 / 28 esent
Number of ECTS cr	edits: 4
Recommended seme	ster/trimester of the course: 2.
Course level: I., II.	
Prerequisities: ÚMV	/FRPb/19
Conditions for cours Final evaluation is gi	e completion: ven by continuous assessment.
Learning outcomes: Expand the knowled learning and artificial	ge of mathematical analysis needed to deepen understanding of machine intelligence.
 Brief outline of the c 1. Vector (linear) sp functions). 2. Metric space (MS) and compactness of M 3. Normed linear sp Minkowski inequality 4. Space with scalar p theorem, parallelogra 6. Operators (function) 	ourse: bace - examples of infinite-dimensional spaces (spaces of sequences and - metric, convergence of sequences, closure and interior of a set, completeness MP, Banach fixed-point theorem. ace (NLS) - norm, Banach spaces, relation to MS, dual spaces, Hölder, y. roduct - unitary and Hilbert spaces, Cauchy-Schwartz inequality, Pythagorean m rule, relation to LNP, orthogonal projections. nals) in NLP - linearity, continuity, boundedness, adjointness.
Recommended litera 1. N. Katzourakis, E. FL:CRC Press (2018) 2. A. M. Bruckner, J. 2008 3. Taylor, A.: Úvod d 4. Kolmogorov, A., F 5. S. Lang, Undegrad	 ture: Varvaruca, An illustrative introduction to modern analysis. Boca Raton, B. Bruckner, B. S. Thomson, Real analysis, 2nd. ed., ISBN 1434844129, o funkcionální analýzy, Academia 1973. omin, S.: Základy teórie funkcí a funkcionální analýzy, 1975. uate Analysis, Springer, 1997.
Course language: Slovak	

Notes:

Course assessment Total number of assessed students: 1						
А	A B C D E FX					
100.0	0.0	0.0	0.0	0.0	0.0	
Provides: doc. RNDr. Ondrej Hutník, PhD., Mgr. Jozef Kiseľák, PhD.						
Date of last modification: 27.03.2019						
Approved:						

University: P. J. Šafa	árik University in Košice
Faculty: Faculty of S	Science
Course ID: ÚMV/ SHM/10	Course name: Seminar on history of mathematics
Course type, scope a Course type: Practi Recommended cou Per week: 2 Per stu Course method: pr	and the method: ice irse-load (hours): udy period: 28 resent
Number of ECTS c	redits: 2
Recommended seme	ester/trimester of the course: 2.
Course level: I., II.	
Prerequisities:	
Conditions for cour Homework, presenta More than 91 points 81-90 points - evalua 71-80 points - rating 61-70 points - evalua 51-60 points - evalua Less than 50 points -	se completion: ution on the chosen topic during the seminar. - evaluation of A. ation of B. C. ation of D. ation of E. - FX evaluation.
Learning outcomes: Students get an over selected terms and al	view of the history of the development of certain mathematical disciplines and bout parallel between phylogenesis and ontogenesis of mathematical thinking.
Brief outline of the Mathematics in Ear (Arabia, China, Indi Beginning of Moder	course: ly Civilizations. Greek Mathematics. Mathematics in the Near and Far East a). Medieval European Mathematics. The Renaissance of Mathematics. The m Mathematics.

Recommended literature:

Burton, D. M.: The History of Mathematics: An Introduction. McGraw–Hill, 2007.
Devlin, K.: Jazyk matematiky. Dokořán, 2002 (in czech)
Kolman, A.: Dejiny matematiky ve starověku. Academia, Praha, 1968 (in slovak)
Juškevič, A. P.: Dejiny matematiky ve středověku. Academia, Praha 1977 (in slovak)
Znám,Š. a kol.: Pohľad do dejín matematiky. Alfa, Bratislava, 1986 (in slovak)
Konforovič, A.G.: Významné matematické úlohy, SPN Praha, 1989 (in slovak)

Course language:

Slovak

Notes:

Course assessment Total number of assessed students: 112					
A B C D E FX					
74.11	9.82	8.93	3.57	3.57	0.0
Provides: doc. RNDr. Ingrid Semanišinová, PhD.					
Date of last modification: 03.05.2015					
Approved:					

University: P. J.	Šafárik Univers	sity in Košice			
Faculty: Faculty	of Science				
Course ID: ÚMV SSM/15	V/ Course name: Seminar on school mathematics				
Course type, sco Course type: Pr Recommended Per week: 2 Per Course method	pe and the me actice course-load (h r study period : present	thod: nours): : 28			
Number of ECT	S credits: 2				
Recommended s	emester/trime	ster of the cours	se: 2.		
Course level: II.					
Prerequisities:					
Conditions for c During the seme Evaluation A - a evaluation D at I granted to a study	ourse complet ster will be 3 w t least 90% of t east 60%, eval ent who receive	ion: ritten exams. the points, evalua uation E rating o es less than 50%	ation B - at least of at least 50% c of the points.	80%, evaluation of the points. Crea	C at least 70%, dits shall not be
Learning outcome Students become specific problem	nes: familiar with s of teaching m	the tasks, method athematics at pri	ls of problem so mary and second	lving, solving stra dary schools.	ategies and with
Brief outline of the course: Basic knowledge of school mathematics. Number theory tasks, tasks to optimize, word problems.					
Recommended I Hecht, T., Sklená Hecht, T. a kol., Bratislava 1999- Krantz, S.G., Teo Larson, L.C., Me	iterature: ariková, Z., Me Matematika pre 2002. chniques of Pro ctódy riešenia n	tódy riešenia mat e 14. ročník gyr blem Solving, A natematických pr	tematických úloh nnázií a SOŠ, Or MS, 1997. roblémov, Bratisl	n, Bratislava, SPN rbisPictusIstropol lava, Alfa, 1990.	I, 1992. litana,
Course language Slovak					
Notes:					
Course assessme Total number of	ent assessed studer	nts: 66			
A	В	C	D	Е	FX
57.58	42.42	0.0	0.0	0.0	0.0
Provides: doc. R	NDr. Matúš Ha	rminc, CSc.			
Date of last mod	ification: 03.0	5.2015			
Approved:					

University: P. J.	Šafárik	University in Košice
-------------------	---------	----------------------

Faculty: Faculty of Science

Course ID: ÚINF/	Course name: Seminar to diploma theses in informatics XI
DSU1a/15	

Course type, scope and the method: Course type: Practice Recommended course-load (hours):

Per week: 2 Per study period: 28

Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: ÚINF/PDSI1/15

Conditions for course completion:

Conditions for ongoing evaluation:

- 1. Creation of a glossary of terms and a concept map for teaching a selected topic.
- 2. Creation of a collection of solved tasks for teaching the selected topic.
- 3. Creation of learning objectives and a graded system of tasks for teaching a selected topic.

Conditions for the final evaluation:

- 1. Update and presentation of the thesis website.
- Conditions for successful completion of the course:

Fulfillment of all ongoing and final assignments.

Learning outcomes:

The student will gain an overview of the issues of pedagogical research in the field of teaching informatics.

The student continuously works on his / her thesis (analyzes the content of teaching a selected topic, creates a glossary of terms and a concept map, creates a collection of tasks and then a system of graded tasks) and presents the ongoing results of his / her thesis.

Brief outline of the course:

1. Pedagogical research in the field of teaching informatics (analysis of selected scientific studies with discussion).

2. Pedagogical research in the field of teaching informatics (analysis of selected scientific studies with discussion).

3. Pedagogical research in the field of teaching informatics (design of own pedagogical action research).

4. Analysis of the content of teaching of the selected topic (creation of a glossary of terms and a concept map).

5. Analysis of the content of teaching of the selected topic (creation of a glossary of terms and a concept map).

- 6. Creation of a collection of solved problems for teaching the selected topic.
- 7. Creation of a collection of solved problems for teaching the selected topic.
- 8. Creation of a collection of solved problems for teaching the selected topic.
- 9. Creation of learning objectives and a graded system of tasks for teaching the selected topic.

- 10. Creation of learning objectives and a graded system of tasks for teaching the selected topic.
- 11. Presentations of ongoing results of students' theses, updating of thesis websites.
- 12. Presentations of ongoing results of students' theses, updating of thesis websites.

Recommended literature:

MEŠKO, Dušan, Dušan KATUŠČÁK and Ján FINDRA, 2013. Akademická príručka: Chcete byť úspešní na vysokej škole? 3. vydanie. Osveta, 495 pp. ISBN 9788080633929.

KATUŠČÁK, Dušan, 2013. Ako písať záverečné a kvalifikačné práce. Enigma, 162 pp. ISBN 8089132454.

COMPUTER SCIENCE TEACHERS ASSOCIATION. Home Page

Computer Science Teachers Association [online]. [cited 2021-7-30]. Available from: https://www.csteachers.org/

ASSOCIATION FOR COMPUTING MACHINERY. The ACM Digital Library [online]. [cited 2021-7-30]. Available from: https://dl.acm.org/

SPRINGER NATURE SWITZERLAND AG. Home - Springer [online]. [cited 2021-7-30]. Available from: https://link.springer.com/

BAČÍKOVÁ, Mária, Anna JANOVSKÁ and Oľga OROSOVÁ, 2019. Základy metodológie pedagogicko-psychologického výskumu: Sprievodca pre študentov učiteľstva [online]. 2. doplnené vydanie. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 195 pp. [cited 2021-7-29]. ISBN 978-80-8152-805-7. Available from: https://unibook.upjs.sk/sk/filozoficka-fakulta/1266-zaklady-metodologie-pedagogicko-psychologickeho-vyskumu-sprievodca-pre-

studentov-ucitelstva

Informatics in Education. Vilnius University Institute of Data Science and Digital Technologies. ISSN 2335-8971 (online). Also available from: https://infedu.vu.lt/journal/INFEDU

Matematika–fyzika–informatika. Praha: PROMETHEUS. ISSN 1805-7705. Also available from: http://www.mfi.upol.cz/index.php/mfi/index

UNIVERZITA MATEJA BELA V BANSKEJ BYSTRICI, TECHNICKÁ UNIVERZITA V LIBERCI, 2021. Zborníky medzinárodnej konferencie DidInfo (od roku 2011) [online]. [cited 2021-7-30]. Available from: http://www.didinfo.net/minule-rocniky

CENTRUM VEDECKO-TECHNICKÝCH INFORMÁCIÍ SR. Centrálny register záverečných a kvalifikačných prác [online]. [cited 2021-7-30]. Available from: https://cms.crzp.sk/

Course language:

Slovak and partly English due to selected information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment	
Total number of assessed students. 7	
abs	n
100.0	0.0
Provides: doc. RNDr. Ľubomír Šnajder, PhD.	·
Date of last modification: 01.08.2021	
Approved:	

University: P. J. Šaf	ărik University in Košice
Faculty: Faculty of	Science
Course ID: ÚINF/ DSU1b/15	Course name: Seminar to diploma theses in informatics XI
Course type, scope Course type: Pract Recommended co Per week: 2 Per st Course method: p	and the method: ice urse-load (hours): udy period: 28 resent
Number of ECTS c	redits: 2
Recommended sem	ester/trimester of the course: 3.
Course level: II.	
Prerequisities: ÚIN	F/DSU1a/15
Conditions for cour Conditions for ongo 1. Creation of diagn 2. Creation of teach 3. Creating preparat 4. Evaluation of pile Conditions for the f 1. Update and prese Conditions for succ Fulfillment of all or	rse completion: ong evaluation: ostic tools for teaching selected topics. ing aids for teaching selected topics. ion for teaching selected topics. ot teaching. inal evaluation: ntation of the thesis website. essful completion of the course: agoing and final assignments.
Learning outcomes The student continu plan, preparation fo results of his /her th	: ously works on his / her thesis (creates diagnostic tools, teaching aids, thematic r teaching, implements and evaluates pilot teaching) and presents the ongoing esis.
Brief outline of the 1. Creation of diagonality the project)	course: nostic tools for teaching the selected topic (didactic test, evaluation section of

2. Creation of diagnostic tools for teaching the selected topic (didactic test, evaluation section of the project).

- 3. Creation of teaching aids (reference materials, work files, tutorials, instructional videos).
- 4. Creation of teaching aids (reference materials, work files, tutorials, instructional videos).
- 5. Creation of teaching aids (reference materials, work files, tutorials, instructional videos).
- 6. Creating a thematic plan. Creation of preparations and implementation of pilot teaching.
- 7. Creation of preparations and implementation of pilot teaching.
- 8. Creation of preparations and implementation of pilot teaching.

9. Evaluation of pilot teaching (results of teaching, identified misconceptions of students, interesting student solutions, other observations from teaching).

10. Evaluation of pilot teaching (results of teaching, identified misconceptions of students, interesting student solutions, other observations from teaching).

11. Presentations of ongoing results of students' theses, updates of diploma websites.

12. Presentations of ongoing results of students' theses, updates of diploma websites.

Recommended literature:

MEŠKO, Dušan, Dušan KATUŠČÁK and Ján FINDRA, 2013. Akademická príručka: Chcete byť úspešní na vysokej škole? 3. vydanie. Osveta, 495 pp. ISBN 9788080633929.

KATUŠČÁK, Dušan, 2013. Ako písať záverečné a kvalifikačné práce. Enigma, 162 pp. ISBN 8089132454.

COMPUTER SCIENCE TEACHERS ASSOCIATION. Home Page

Computer Science Teachers Association [online]. [cited 2021-7-30]. Available from: https://www.csteachers.org/

ASSOCIATION FOR COMPUTING MACHINERY. The ACM Digital Library [online]. [cited 2021-7-30]. Available from: https://dl.acm.org/

SPRINGER NATURE SWITZERLAND AG. Home - Springer [online]. [cited 2021-7-30]. Available from: https://link.springer.com/

BAČÍKOVÁ, Mária, Anna JANOVSKÁ and Oľga OROSOVÁ, 2019. Základy metodológie pedagogicko-psychologického výskumu: Sprievodca pre študentov učiteľstva [online]. 2. doplnené vydanie. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 195 pp. [cited

2021-7-29]. ISBN 978-80-8152-805-7. Available from: https://unibook.upjs.sk/sk/filozofickafakulta/1266-zaklady-metodologie-pedagogicko-psychologickeho-vyskumu-sprievodca-prestudentov-ucitelstva

Informatics in Education. Vilnius University Institute of Data Science and Digital Technologies. ISSN 2335-8971 (online). Also available from: https://infedu.vu.lt/journal/INFEDU Matematika, furika, informatika, Preha: PROMETUEUS, ISSN 1805-7705, Also available from:

Matematika–fyzika–informatika. Praha: PROMETHEUS. ISSN 1805-7705. Also available from: http://www.mfi.upol.cz/index.php/mfi/index

UNIVERZITA MATEJA BELA V BANSKEJ BYSTRICI, TECHNICKÁ UNIVERZITA V LIBERCI, 2021. Zborníky medzinárodnej konferencie DidInfo (od roku 2011) [online]. [cited 2021-7-30]. Available from: http://www.didinfo.net/minule-rocniky

CENTRUM VEDECKO-TECHNICKÝCH INFORMÁCIÍ SR. Centrálny register záverečných a kvalifikačných prác [online]. [cited 2021-7-30]. Available from: https://cms.crzp.sk/

Course language:

Slovak and partly English due to selected information sources

Notes:

By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

<u> </u>		
Course assessment Total number of assessed students: 30		
abs	n	
100.0	0.0	
Provides: doc. RNDr. Ľubomír Šnajder, PhD.		
Date of last modification: 01.08.2021		
Approved:		

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	science
Course ID: KSSFaK/VSJU/15	Course name: Slovak Language for Teachers
Course type, scope a Course type: Lectur Recommended cou Per week: 2 Per stu Course method: pre	and the method: re rse-load (hours): ady period: 28 esent
Number of ECTS cr	redits: 2
Recommended seme	ester/trimester of the course: 1., 3.
Course level: II.	
Prerequisities:	
Conditions for cours passing a final test (min. 55 %)	se completion:
Learning outcomes: Mastering of standa codification manuals of written communic characteristics of exp	ard Slovak in spoken and written discouse. Becoming familiarized with a, acquiring skills related to bibliography and quotation standards. Mastering cation in accordance with current orthographical rules. Mastering of basic pressions of text and style and fundamentals of text composition.
Brief outline of the c Characteristics of ba sign character of lang aspect of language u national language. La of orthographic rule phenomena in vowels and its specific featu	sic terms of general linguistics (language – speech, language functions, the guage, language levels, content and form in language, individual and general nits) on interdisciplinary background and with the application to Slovak as a anguage standard, codification, usus. Basic codification manuals. Application es in practical documents. Sound culture, pronunciation styles. Orthoepic s and consonants. Application of rhythmic law and its exceptions. Assimilation res in Slovak. Style, stylization – methods and demonstration of structure of

Recommended literature:

text components.

Krátky slovník slovenského jazyka. Bratislava: Veda 1997.

Slovník súčasného slovenského jazyka. Bratislava: Veda 2006.

Slovník súčasného slovenského jazyka. Bratislava: Veda 2011.

Slovník súčasného slovenského jazyka. Bratislava: Veda 2015.

Pravidlá slovenského pravopisu. Bratislava: Veda 2000 (2013).

BÓNOVÁ, I. - JASINSKÁ, L.: Jazyková kultúra nielen pre lingvistov. Košice: UPJŠ 2019. 100 s. KRÁĽ, Á.: Pravidlá slovenskej výslovnosti. Martin: Matica slovenská 2005. 423 s.

ONDRUŠ, Š. – SABOL, J.: Úvod do štúdia jazykov. 3. vyd. Bratislava, SPN 1987. 343s.

SABOL, J.- SLANČOVÁ, D. - SOKOLOVÁ, M.: Kultúra hovoreného slova. Prešov, FF UPJŠ 1989.

SABOL, J. – BÓNOVÁ, I. – SOKOLOVÁ, M.: Kultúra hovoreného prejavu. Prešov: FF PU 2006.

FINDRA, J.: Štylistika slovenčiny. Martin: Osveta, 2004.

FINDRA, Ján: Štylistika slovenčiny v cvičeniach. Martin : Osveta, 2005.

SLANČOVÁ, D.: Praktická štylistika. 2., upravené a doplnené vydanie. Prešov: Slovacontact 1996. 178 s. ISBN 80-901417-9-X.

Course languag	Course language:				
Notes:					
Course assessment Total number of assessed students: 96					
А	В	С	D	Е	FX
14.58	29.17 33.33 12.5 10.42 0.0				
Provides: PhDr	Provides: PhDr. Iveta Bónová, PhD., PhDr. Lucia Jasinská, PhD., Mgr. Lena Ivančová, PhD.				
Date of last modification: 08.06.2021					
Approved:	Approved:				

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	Faculty: Faculty of Science					
Course ID: ÚTVŠ/ TVa/11	Course name: Sports Activities I.					
Course type, scope a Course type: Praction Recommended cour Per week: 2 Per stur Course method: cor	and the method: ce rse-load (hours): ady period: 28 mbined, present					
Number of ECTS cr	edits: 2					
Recommended seme	ster/trimester of the course: 1.					
Course level: I., I.II.,	II.					
Prerequisities:	Prerequisities:					
Conditions for cours Min. 80% of active p	e completion: articipation in classes.					
Learning outcomes: Sports activities in all They have a great in enables students to s improve.	their forms prepare university students for their professional and personal life. npact on physical fitness and performance. Specialization in sports activities strengthen their relationship towards the selected sport in which they also					
Brief outline of the c Brief outline of the c Within the optional s University provides badminton, body forr indoor football, S-M In the first two seme and particularities of physical condition, c Last but not least, the means of a special pr	course: ourse: subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik for students the following sports activities: aerobics, aikido, basketball, n, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, systems, step aerobics, table tennis, tennis, volleyball and chess. sters of the first level of education students will master basic characteristics individual sports, motor skills, game activities, they will improve level of their coordination abilities, physical performance, and motor performance fitness. e important role of sports activities is to eliminate swimming illiteracy and by cogram of medical physical education to influence and mitigate unfitness					

In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature:

Course language:

Notes:

Course assessment Total number of assessed students: 12859							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
87.01	0.08	0.0	0.0	0.0	0.04	8.1	4.77
Provides: Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.							
Date of last modification: 13.05.2021							
Approved:							

University:	P. J. Šafárik	University i	n Košice				
Faculty: Fa	culty of Scie	ence					
Course ID: TVb/11	Course ID: ÚTVŠ/ Vb/11Course name: Sports Activities II.						
Course typ Course tyj Recomme Per week: Course me	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present						
Number of	ECTS cred	its: 2					
Recommen	ded semeste	er/trimester	of the cours	e: 2.			
Course leve	el: I., I.II., II	•					
Prerequisit	ies:						
Conditions active parti	for course of cipation in c	completion: lasses - min.	80%.				
Learning o Sports activ They have enables stu improve.	Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.						
Brief outline of the course: Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness. In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.							
Recommended literature:							
Course lan	Course language:						
Notes:	Notes:						
Course asse Total numb	essment er of assesse	ed students: 1	1675				
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
84.52	0.56	0.02	0.0	0.0	0.05	10.63	4.22

Provides: Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021

Approved:

University:	P. J. Šafárik	University i	n Košice				
Faculty: Fa	culty of Scie	ence					
Course ID: TVc/11	urse ID: ÚTVŠ/ Course name: Sports Activities III. Vc/11						
Course type Course type Recommen Per week: Course me	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present						
Number of	ECTS cred	its: 2					
Recommen	ded semeste	er/trimester	of the cours	e: 3.			
Course leve	e l: I., I.II., II.	•					
Prerequisiti	ies:						
Conditions min. 80% o	for course o f active part	completion: icipation in c	lasses				
Learning of Sports activ They have a enables stud improve.	Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.					ersonal life. ts activities h they also	
Brief outline of the course: Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness. In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.							
Recommended literature:							
Course lang	Course language:						
Notes:							
Course asse Total numb	essment er of assesse	ed students: 7	873				
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.8	0.05	0.01	0.0	0.0	0.03	4.08	7.04

Provides: Mgr. Marcel Čurgali, Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021

Approved:

University: P.	J. Šafárik	University i	n Košice				
Faculty: Facul	lty of Scie	nce					
Course ID: Ú' TVd/11	TVŠ/ Co	ourse name:	: Sports Acti	vities IV.			
Course type, s Course type: Recommend Per week: 2 Course meth	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present						
Number of EC	CTS credi	ts: 2					
Recommende	ed semeste	r/trimester	of the cours	e: 4.			
Course level:	I., I.II., II.						
Prerequisities	s:						
Conditions for min. 80% of a	r course c active parti	ompletion: cipation in c	lasses				
Learning outo Sports activitie They have a g enables studen improve.	Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.						
Brief outline of the course: Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness. In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.							
Recommended literature:							
Course language:							
Notes:							
Course assess Total number	sment of assesse	d students: 5	125				
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
83.14	0.31	0.04	0.0	0.0	0.0	7.75	8.76

Provides: Mgr. Marcel Čurgali, Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021

Approved:

University: P. J	. Šafárik Univers	sity in Košice			
Faculty: Facult	y of Science				
Course ID: ÚIN SVK1/15	NF/ Course na	Course name: Student scientific conference			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of EC	IS credits: 4		• •		
Recommended	semester/trime	ster of the cours	e: 2., 4.		
Course level: I.	, II.				
Prerequisities:					
Conditions for	course completi	ion:			
Learning outco	omes:				
Brief outline of	the course:				
Recommended	literature:				
Course languag	ge:				
Notes:					
Course assessment Total number of assessed students: 182					
А	В	С	D	Е	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides:					
Date of last mo	Date of last modification: 03.05.2015				
Approved:					

University: P. J. Ša	afárik Univers	ity in Košice				
Faculty: Faculty of	Faculty: Faculty of Science					
Course ID: ÚMV/ SVK/10	Course na	Course name: Students scientific conference				
Course type, scope Course type: Recommended co Per week: Per st Course method:	e and the met ourse-load (he cudy period: present	hod: ours):				
Number of ECTS	credits: 4					
Recommended ser	mester/trimes	ter of the cours	e:			
Course level: I., II	•					
Prerequisities:						
Conditions for cou	urse completi	on:				
Learning outcome Individual scientifi public presentation	e s: ic work of stud 1.	dents. Publishing	of obtained res	sults in a written f	form and as a	
Brief outline of th	e course:					
Recommended lite With respect to the	e rature: e research prob	plematics (article	in journals, boo	oks).		
Course language: Slovak or English	Course language: Slovak or English					
Notes:						
Course assessment Total number of assessed students: 101						
A	В	С	D	E	FX	
99.01	0.99	0.0	0.0	0.0	0.0	
Provides:	Provides:					
Date of last modif	ication: 03.05	.2015				
Approved:						

University: P J Šafá	rik University in Košice				
Feaulty: Eaculty of Science					
Faculty. Faculty of S					
Course ID: UTVS/ LKSp/13	Course name: Summer Course-Rafting of TISA River				
Course type, scope a Course type: Practic Recommended cour Per week: Per stud Course method: pre	nd the method: ce rse-load (hours): ly period: 36s esent				
Number of ECTS cr	edits: 2				
Recommended seme	ster/trimester of the course:				
Course level: I., II.					
Prerequisities:					
Conditions for course completion: Conditions for course completion: Attendance Final assessment: Raft control on the waterway (attended/not attended)					
Learning outcomes: Learning outcomes: Students have knowled	edge of rafts (canoe) and their control on waterway.				
Students have knowledge of rans (cance) and their control on waterway. Brief outline of the course: 1. Assessment of difficulty of waterways 2. Safety rules for rafting 3. Setting up a crew 4. Practical skills training using an empty cance 5. Cance lifting and carrying 6. Putting the cance in the water without a shore contact 7. Getting in the cance 8. Exiting the cance out of the water 10. Steering a) The pry stroke (on fast waterways) b) The draw stroke 11. Capsizing 12. Commands					
Recommended litera	iture:				
Course language:					
Notes:					

Course assessment Total number of assessed students: 153				
abs	n			
45.75	54.25			
Provides: Mgr. Dávid Kaško, PhD.				
Date of last modification: 18.03.2019				
Approved:				

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: KPE/ MPPa/15	ourse ID: KPE/ IPPa/15Course name: Supervised Teaching Practice			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present				
Number of ECTS cr	edits: 2			
Recommended seme	ster/trimester of the cours	e: 1		
Course level: II.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
Course assessment Total number of asses	Course assessment Total number of assessed students: 503			
	abs	n		
	100.0 0.0			
Provides: doc. PhDr. Beata Gajdošová, PhD., doc. PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD., Mgr. Lenka Kohoutková				
Date of last modification: 08.06.2021				
Approved:				

University: P. J. Šafár	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚTVŠ/ KP/12	Course name: Survival Course
Course type, scope a Course type: Practic Recommended cour Per week: Per stud Course method: cor	nd the method: ce rse-load (hours): y period: 36s mbined, present
Number of ECTS cro	edits: 2
Recommended seme	ster/trimester of the course:
Course level: I., II.	
Prerequisities:	
Conditions for cours Conditions for course Attendance Final assessment: cor	e completion: completion: ntinuous fulfilment of all tasks within the course
Learning outcomes: Learning outcomes: Students will be fan conditions as they wi and demanding situa course develops team require overcoming o	niliarized with principles of safe stay and movement in extreme natural ll obtain theoretical knowledge and practical skills to solve the extraordinary tions connected with survival and minimization of damage to health. The n work and students will learn how to manage and face the situations that of obstacles.
 Brief outline of the c Brief outline of the cc Lectures: Principles of behave Preparation and lead Objective and subjic Principles of hygic Exercises: Movement in terrat Preparation of imp Water treatment and 	ourse: burse: viour and safety for movement and stay in unknown mountains adership of tour ective danger in mountains ne and prevention of damage to health in extreme conditions in, orientation and navigation in terrain (compasses, GPS) rovised overnight stay d food preparation.
Recommended litera	ture:
Course language:	
Notes:	

Course assessment Total number of assessed students: 393					
abs n					
44.53	55.47				
Provides: MUDr. Peter Dombrovský, Mgr. Ladislav Kručanica, PhD.					
Date of last modification: 15.03.2019					
Approved:					

University: P. J.	Šafárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: KPE PDU/15	E/ Course na	Course name: Teaching Methodology and Pedagogy			
Course type, sc Course type: L Recommended Per week: 2 / 2 Course method	ope and the met Lecture / Practice l course-load (h 2 Per study perio d: present	thod: ours): od: 28 / 28			
Number of EC	S credits: 5				
Recommended	semester/trimes	ster of the cours	e: 1.		
Course level: II					
Prerequisities:					
Conditions for a	course completi	on:			
Learning outco	mes:				
Brief outline of	the course:				
Recommended	literature:				
Course languag	e:				
Notes:					
Course assessm Total number of	ent assessed studen	ts: 550			
А	В	С	D	Е	FX
27.27	28.55	25.64	13.27	4.55	0.73
Provides: doc. F	PaedDr. Renáta C	Drosová, PhD., Pa	edDr. Michal N	ovocký, PhD.	<u> </u>
Date of last mo	dification: 14.06	5.2021			
Approved:					

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/UPR/15	Course name: The Art of Aiding by Verbal Exchange				
Course type, scope an Course type: Practic Recommended cour Per week: 2 Per stue Course method: pre	nd the method: ce rse-load (hours): dy period: 28 sent				
Number of ECTS cre	edits: 2				
Recommended semes	ster/trimester of the course: 2.				
Course level: II.					
Prerequisities:					
Conditions for course 1. Active participation 2. Elaboration and pr points 20; minimum r 3. Final test in the ran points 20; minimum r presentation and the te The evaluation of the set requirements, while ensure an objective an moral standards. The process or in the assess	e completion: n in seminars esentation of PPT presentation on the assigned topic. Maximum number of number of points 11. ge of 20 questions from selected chapters and lectures. Maximum number of number of points 11. The final evaluation (mark) is the sum of points for the est. A 40b - 37b B 36b - 33b C 32b - 29b D 28b - 25b E 24b - 21b FX 20b - 0b course and its subsequent completion will be based on clearly and objectively ch will be set in advance and will not change. The aim of the assessment is to nd fair mapping of the student's knowledge while adhering to all ethical and re is no tolerance for students' fraudulent behavior, whether in the teaching ssment process.				
Learning outcomes: Provide students with clarify orders. Reflect The student is able to helping conversation. The student is able to techniques to help the The student is able to process. The method of teachi students' needs, expect respect and feedback The content of the cur topicality of the topics the connection of the of in lectures and semina	basic information about a systemic approach to helping. Train interviewing, to help options. demonstrate an understanding of the theoretical principles of conducting a describe, explain and evaluate in what context to use which of the selected interview with the individual. use basic selected techniques when working with an individual in the interview ong the subject will be oriented to the student. Lecturers will be interested in thations and opinions so as to encourage them to think critically by expressing on their opinions and needs. riculum will be based on primary and high-quality sources that will reflect the s so as to ensure the connection of the curriculum with other subjects and also curriculum with practice. Students will be expected to take an active approach ars with an emphasis on their independence and responsibility.				
Brief outline of the co	ourse:				

Psychological preparation for conducting an interview. Self-reflection of one's own possibilities, abilities to lead a conversation, to help. Possibilities of helping with conversations from the point of view of selected psychological approaches. Systematic approach to helping. Interview and professional ways to help and control. Objectivist and constructivist framework of conversation in theory and practice. Is it possible to help with control? Opening the interview, negotiating the course, course, ending the interview. Constructivist questions in the interview. Analysis of individual phases of conducting the interview. Reflex team possibilities of help in conversation. Models of reflective teams. Model situations of conducting an interview with a group. Professional possibilities, advantages and pitfalls of solving problems with an individual, with a group.

Recommended literature:

Course language:						
Notes:						
Course assessment Total number of assessed students: 117						
А	В	С	D	Е	FX	
87.18	3.42	7.69	0.85	0.85	0.0	
Provides: Mgr. Ondrej Kalina, PhD.						
Date of last modification: 24.06.2021						
Approved:						

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/ZMPPV/15Course name: The Fundamentals of Pedagogico-Psychological Research Methodology					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of ECTS credits: 4					
Recommended semester/trimester of the course: 2.					

Course level: II.

Prerequisities: KPPaPZ/PPgU/15,KPE/PDU/15

Conditions for course completion:

- active participation in seminars, presentation of assignments in groups, final exam

Learning outcomes:

The graduate of the course will gain information about the research methodology, will understand the basic methods of pedagogical and psychological research that can be used in the practice of the teacher. Within the seminars, students will develop professional skills through their own demonstration of a specific research method. The graduate of the course will be able to carry out simple scientific research, present the results of research and read the results of the latest research in the field of pedagogy and psychology.

Brief outline of the course:

Research in pedagogy and psychology. Scientific research, scientific thinking. Parts of a research project. Research planning. Topic selection, research problem formulation. Types of research plans. Hypothesis, variables, operationalization. Ethical issues of scientific research. Experiment (experiment problems, control of variables in the experiment). Experimental plans, quasi-experiment. Reliability and validity of research. Research sample, methods of sample selection. Data collection techniques - questionnaire, interview, sociometry, semantic differential, observation, tests. Introduction to qualitative methodology. Possibilities of quantitative data processing. How to write a scientific article, presentation, poster, qualification work. Interpretation of findings, integration of findings into context.

Recommended literature:

Bačíková, M., Janovská, A., Orosová, O. Základy metodológie pedagogicko-psychologického výskumu. 2.doplnené vydanie. Šafárik Press, 2019. dostupné online: https://unibook.upjs.sk/img/ cms/2019/FF/zaklady-metodologie-ped-psych-vyskumu-2-vyd-web.pdf

Gavora, P.: Úvod do pedagogického výskumu. Bratislava, UK 1999.

Švec, Š. a kol.: Metodológia vied o výchove. Bratislava, Iris 1998. Turek, I.: K základom pedagogického výskumu. Prešov, KPÚ 1991.

Ferjenčík, J.: Úvod do metodológie psychologického výskumu. Praha, Portál 2000. http://www.e-metodologia.fedu.uniba.sk/

Course language:

Notes:						
Course assessment Total number of assessed students: 526						
А	В	С	D	Е	FX	
18.63	27.38	23.57	19.58	10.65	0.19	
Provides: Mgr. Mária Bačíková, PhD., PhDr. Anna Janovská, PhD.						
Date of last modification: 24.06.2021						
Approved:						