University: P. J.	Šafárik Univers	ity in Košice					
Faculty: Faculty	of Science						
Course ID: KFa AFS/05	Course ID: KFaDF/ Course name: Antique Philosophy and Present Times AFS/05						
Course type, sco Course type: P Recommended Per week: 2 Pe Course method	ope and the met tractice course-load (h er study period: l: present	hod: ours): 28					
Number of cred	its: 2						
Recommended	semester/trimes	ter of the cours	e: 2.				
Course level: I.,	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: 30					
A	A B C D E FX						
83.33 6.67 6.67 0.0 3.33 0.0							
Provides: doc. P	hDr. Pavol Thol	t, PhD., mim.pro	f., Doc. PhDr. P	eter Nezník, CSc.			
Date of last mod	lification: 26.01	.2014					
Approved: prof.	RNDr. Stanisla	v Jendrol', DrSc.					

University: P. J.	Šafárik Univers	sity in Košice					
Faculty: Faculty	of Science			_			
Course ID: ÚFV TGSF/10	7/ Course name: Applications of Graph Theory in Statistical Physics						
Course type, sco Course type: L Recommended Per week: 2 / 1 Course method	ope and the me ecture / Practice course-load (h Per study peri l: present	thod: cours): od: 28 / 14					
Number of cred	its: 3						
Recommended	semester/trime	ster of the cours	e: 2.				
Course level: II.							
Prerequisities:							
Conditions for a	course complet	ion:					
Learning outcome To become fami	mes: liar with the mo	st significant app	lications of a gra	ph theory in stati	istical physics.		
An introduction equivalents in p solution for the temperature seri of planar graphs Ice-type models and their analys statistical physic	to thermodynam hysics. The Isir planar Ising m es expansion, th and its equivale and their variou is with the help es.	nics and statistica ag model and its odel as a graph- e dual transforma ence with the calc s applications in s of AG inequality	l physics. Basic r various application theoretical problection and critical l culation of a resident tatistical physics. The Potts mode	notions of graph ons in statistical em. High-temper behaviour. The co lual entropy of th . The first-order p el and its various	theory and their physics. Exact rature and low- oloring problem the Ising models. The sector of the sector of the sector of the sector of the sector of the sector of the sector of the sector of the		
Recommended	illerature:						
Course languag EN - english	e:						
Notes:							
Course assessment Total number of assessed students: 7							
А	B C D E FX						
100.0 0.0 0.0 0.0 0.0							
Provides: doc. R	NDr. Jozef Stre	čka, PhD.					
Date of last modification: 31.01.2014							
Approved: prof.	RNDr. Stanisla	v Jendrol', DrSc.					

University: P. J	. Šafárik Univer	sity in Košice					
Faculty: Facult	y of Science						
Course ID: ÚM ALA/10	Course ID: ÚMV/ Course name: Applied linear algebra						
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present							
Number of crea	lits: 5						
Recommended	semester/trime	ester of the cours	e: 1.				
Course level: II	•						
Prerequisities:							
Conditions for According to te	course completests and to the experience of the	t ion: xam.					
Learning outco To obtain basic	mes: knowledge on l	inear algebra; to b	be able to apply	the theory in cond	crete excercises.		
Brief outline of Matrices over Jordan normal pseudoinverse r	the course: Euclidean rin form. Function natrices and the	gs, canonical for s of matrices, se ir application.	orms. Polynomi quences, series.	al matrices. Si Inversion of sir	milar matrices. ngular matrices,		
Recommended H.E.Rose: Line D.Serre: Matric http://www.cs.u	literature: ar Algebra, A P es, Theory and tt.ee/~toomas_l/	ure Mathematical applications, Spri linalg/	Approach, Birk nger Verlag, 200	häuser Verlag, 20 2.	02.		
Course languag Slovak	ge:						
Notes:	Notes:						
Course assessment Total number of assessed students: 23							
А	B C D E FX						
43.48 8.7 21.74 4.35 21.74 0.0							
Provides: prof. RNDr. Danica Studenovská, CSc.							
Date of last mo	Date of last modification: 14.02.2014						
Approved: prof	. RNDr. Stanisl	av Jendrol', DrSc.					
<u>.</u>							

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of Science						
Course ID: ÚMV/ APS/10	Course name: Applied statistics					
Course type, scope a Course type: Lectur Recommended cour Per week: 3 / 2 Per Course method: pre	nd the method: e / Practice rse-load (hours): study period: 42 / 28 esent					
Number of credits: 6						
Recommended seme	ster/trimester of the course: 2.					
Course level: II.						
Prerequisities:						
Conditions for cours Given at the basis of partial examination, o	e completion: Statistical processing of real data. Final evaluation is given at the basis of computing part, and oral part of the exam.					
Learning outcomes: Learning most freque	ntly applied statistical methods.					
Brief outline of the c • Matrices and linear • Important distribution o Normal distribution o Hotelling's test • General linear model o Probability foundat o Model with full rand o Model with full rand o Model with incomp o Submodels testing • Regression analysis o Basic models o Assessing the quality • Analysis of variance o One-way ANOVA, o Balanced factorial randesign, Latin squaress o Hierarchical model • Analysis of covariant • Statistical software	ourse: spaces, g-inversions, projections ons and related distributions el ions of regression and correlation k lete rank y of a model e multiple comparison procedures, problem of heteroskedasticity nodels (two-way ANOVA with/without interactions, three-way ANOVA, BIB) s nce for linear modeling					
Recommended litera • Rao: Linear statistic • Seber: Linear regres • Searle: Linear mode • Sen, Srivastava: Reg	ture: cal inference and its applications, Wiley, 1973 ssion analysis, Wiley, 1977 els, Wiley, 1997 gression analysis (Theory, Methods, and Applications), Springer, 1990					

• Christensen: Plane answers to complex questions (The Theory of Linear Models), Springer, 1987

Course langua Slovak	age:						
Notes:							
Course assess Total number of	ment of assessed studer	its: 143					
А	В	С	D	Е	FX		
3.5	3.5 12.59 21.68 18.88 24.48 18.88						
Provides: doc.	RNDr. Ivan Žežu	ıla, CSc.					
Date of last m	odification: 14.02	2.2014					
Approved: pro	of. RNDr. Stanisla	v Jendrol', DrSc.					

Faculty: F.J. Satanic University in Kosice Faculty: Faculty of Science Course ID: ÚINF/ Course type, scope and the method: Course type, scope and the method: 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 credits: 6 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Written work Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing McGraw-Hill, 1999.	University. D I Čefé	rik University in Kečice
Faculty: Faculty of Science Course ID: ÚINF/ Course name: Classical and quantum computations KKV1/06 Course type, scope and the method: 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 credits: 6 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Writen and oral examination Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. 3. JOHNSON, G. A. Shorteut Through Time: The Path to the Quan	University: P. J. Sala	
Course ID: UINF/ KKV1/06 Course name: Classical and quantum computations 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 credits: 6 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Written and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. BERMAN, G.P., DOOLEN, G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Information. Cambridge University Press,	Faculty: Faculty of S	cience
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 credits: 6 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Written work Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. 1. BERMAN,G.P., DOLEN,G.D., MAINIERI, R., TSIFRINOVIC, VI. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003.	Course ID: ÚINF/ KKV1/06	Course name: Classical and quantum computations
Number of credits: 6 Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Written work Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. BERMAN, G.P., DOOLEN, G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Information. Cambridge University Press, 2000. 6. HIRVENSALO, M., Quantum Computing, Springer 2004	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
Recommended semester/trimester of the course: 3. Course level: II. Prerequisities: Conditions for course completion: Written work Written and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. 1. BERMAN, G.P., DOOLEN, G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Information. Cambridge University Press, 2000. 5. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. 6. HIRVENSALO, M., Quantum Computing, Springer 2004 </td <td>Number of credits: 6</td> <td></td>	Number of credits: 6	
Course level: II. Prerequisities: Conditions for course completion: Written and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. 1. BERMAN, G.P., DOOLEN, G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. 5. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. 6. HIRVENSALO, M., Quantum Computing, Springer 2004	Recommended seme	ster/trimester of the course: 3.
Prerequisities: Conditions for course completion: Written work Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: 1. BERMAN, G.P., DOOLEN, G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. 5. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. 6. HIRVENSALO, M., Quantum Computing, Springer 2004	Course level: II.	
 Conditions for course completion: Written work Writen and oral examination Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. HIRVENSALO, M., Quantum Computing, Springer 2004 	Prerequisities:	
 Learning outcomes: To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods. Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. HIRVENSALO, M., Quantum Computing, Springer 2004 	Conditions for cours Written work Writen and oral exam	e completion:
 Brief outline of the course: The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes. Recommended literature: BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. HIRVENSALO, M., Quantum Computing, Springer 2004 	Learning outcomes: To provide informati and quantum models	on on quantum computer and quantum computations. To compare classical and methods.
 Recommended literature: 1. BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003. 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999. 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003. 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002. 5. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000. 6. HIRVENSALO, M., Quantum Computing, Springer 2004 	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.
Course language:	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	Advance of the second s
l vou sv language.	Course language:	
Notes:	Notes:	

Course assessment Total number of assessed students: 65							
A B C D E FX							
24.62 27.69 12.31 20.0 10.77 4.62							
Provides: doc. RNDr. Gabriel Semanišin, PhD., RNDr. Zuzana Bednárová, PhD.							
Date of last modification: 03.02.2014							
Approved: prof. RNDr. Stanislav Jendrol', DrSc.							

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚMV/ KDZ/10Course name: Combinatorial designs							
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 credits: 4							
Recommended semester/trimester of the course: 3.							
Course level: II.							
Prerequisities:							
Conditions for course completion: Based on results of oral exam.							
Learning outcomes: To present the basics of theory of combinatorial designs and their applications in sciences.							
Brief outline of the course:2-designs, balanced designs. Symmetric designs, Hadamard matrices, finite projective planes.Steiner systems.							
Recommended literature: I. Anderson, I. Honkala: A short course in combinatorial designs, http://www.utu.fi/~honkala/ cover.html D.R. Stinson: Combinatorial Designs: Constructions and Analysis, Springer 2004 W.D. Wallis: Combinatorial designs, Marcel Dekker 1988							
Course language: Slovak or English							
Notes:							
Course assessment Total number of assessed students: 60							
A B C D E FX							
21.67 21.67 28.33 21.67 6.67 0.0							
Provides: doc. RNDr. Tomáš Madaras, PhD.							
Date of last modification: 14.02.2014							
Approved: prof. RNDr. Stanislav Jendrol', DrSc.							

× -						
University: P. J. Safárik University in Košice						
Faculty: Faculty of So	Faculty: Faculty of Science					
Course ID: ÚMV/ KOO/10	Course name: Combinatorial optimization					
Course type, scope an Course type: Lecture Recommended cour Per week: 3 / 1 Per s Course method: pre	nd the method: e / Practice se-load (hours): study period: 42 / 14 sent					
Number of credits: 6						
Recommended semes	ster/trimester of the course: 2.					
Course level: II.						
Prerequisities:						
Conditions for cours Evaluation is based or	e completion: n working out the seminar work and on passing the oral examination.					
Learning outcomes: Mastered basic knowl on typical problems u	ledge of methods of modelling and controlling, and an ability to apply them sing methods of discrete mathematics.					
Brief outline of the co Introduction to graphs Introduction to algo algorithms. NP-comp Trees and rooted trees Distance in graphs. S capacity path. The pat Location centres and in Networks: An introdu Matchings: Maximum Transportation and as Eulerian graphs and C Hamiltonian graphs. T	 burse: c. rithms and complexity. Sorting algorithms. Search algorithms. Greedy leteness. a. Generating all spanning trees of a graph. Minimum spanning tree problem. hortest path problem and its analogues. The most reliable path. The largest th with the largest expected capacity. medians. ction to networks, the max-flow min-cut theorem. Related problems. n matchings in bipartite graphs. Maximum matchings in general graphs. signment problems. Chinese postman's problem. 					
Recommended litera 1. G. Chartrand, O.R. New York 1993. 2. N. Christofides: Gr (Russian translation ff 3. D. Jungnickel: Gray 4. J. Plesník: Grafové 5. M. N. S. Swamy, K New York 1981. Course language: Slovak	ture: Vellermann: Applied and Algorithmic Graph Theory, McGraw-Hill, Inc. aph Theory - An Algorithmic Approach, Academic Press, New York 1975 rom 1978). phs, Networks, and Algorithms, Springer-Verlag Berlin 2005. algoritmy, Veda Bratislava 1983. Thulasiraman: Graphs, networks, and algorithms. John Wiley and Sons,					

Notes:							
Course assessment Total number of assessed students: 21							
A B C D E FX							
61.9	28.57	4.76	4.76	0.0	0.0		
Provides: prof. RNDr. Stanislav Jendrol', DrSc.							
Date of last modification: 14.02.2014							
Approved: prof. RNDr. Stanislav Jendrol', DrSc.							

University: P. J. Šafá	rik Universi	ty in Košice			
Faculty: Faculty of S	cience				
Course ID: XPPaPZ/KK/07 Course name: Communication and Cooperation					
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the met ce rse-load (ho dy period: esent	hod: ours): 28			
Number of credits: 2					
Recommended seme	ster/trimes	ter of the course: 3.			
Course level: II.					
Prerequisities:					
Conditions for cours	e completio	on:			
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	iture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed student	s: 281			
abs n z					
98.22 1.78 0.0					
Provides: Mgr. Ondre	ej Kalina, Pl	hD.			
Date of last modifica	tion: 04.02	.2014			
Approved: prof. RNI	Dr. Stanislav	/ Jendrol', DrSc.			

University: P. J. Safár	rik Universit	y in Košice						
Faculty: Faculty of Science								
Course ID: ÚINF/ VYZ1/04	Course ID: ÚINF/ Course name: Computational complexity VYZ1/04							
Course type, scope an Course type: Lectur Recommended cour Per week: 2 Per stur Course method: pre	nd the meth e rse-load (hou dy period: 2 esent	od: urs): 8						
Number of credits: 4	ļ							
Recommended seme	ster/trimest	er of the cours	se: 3.					
Course level: II.								
Prerequisities:								
Conditions for cours Oral examination.	e completio	n:						
Learning outcomes: To give the students the theoretical background in computational complexity and theory of NP-completeness.								
Deterministic and a Deterministic simulat Another NP-complete satisfiability, 3-colora balancing, Space simulation - Savitch complexity of problem	nondetermin tion of a nonce te problems: ability of a bounded co h theorem. ms.	istic algorithm leterministic Tr satisfiability graph, 3-colo omputations, o Closure unde	ns with polyn uring machine. S of a formula in orability of a p classes LOG-sp r complement	nomial time, Natisfiability of Bo a conjunctive n lanar graph, kna ace and P-space Classification of	P-completeness. polean formulae. normal form, 3- upsack problem, e. Deterministic f computational			
Recommended litera A.V.Aho and J.D.Ullr 1974. P.van Emde Boas. Ma theoretical computer s Ch.K.Yap. Introductio Press. (Electronic ver bk).	nture: man. The des achine model science. Nor on to the theo rsion availabl	sign and analys s and simulation th-Holland, 19 pry of complex e via anonymo	sis of computer a ons. In J.van Lee 90. 	llgorithms. Addis euwen (ed.): Hand e published by O: du/pub/local/yap/	on-Wesley, dbook of xford Univ. /complexity-			
Course language:								
Notes:								
Course assessment								
Total number of asses	ssed students	: 296	.					
A	В	С	D	E	FX			
52.36	14.86	14.53	9.8	8.45	0.0			

Provides: prof. RNDr. Viliam Geffert, DrSc.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Stanislav Jendrol', DrSc.

University: P. J. Š	afárik Univers	ity in Košice				
Faculty: Faculty of	of Science					
Course ID: ÚMV TSS/10	Course na	me: Control theo	ory			
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 credit	t s: 6					
Recommended se	emester/trimes	ter of the course	e: 1., 3.			
Course level: II.						
Prerequisities:						
Conditions for co Based on two wri	ourse completi tten tests durin	on: g the semester an	d on the oral ex	amination.		
Learning outcom To learn the basic	es: notions of con	trollable systems				
Brief outline of th Controllable syste controls Discret applications of the	he course: ems. Pontrjagin e systems, dyn eoretical results	maximum princi namic programm 5.	ple. Linear syste ing, Bellmann'	ems, bang-bang co s optimality princ	ntrols, singular ciple. Practical	
Recommended litt 1. K. Macki, A. S 2. G. Feichtinger,	terature: trauss: Introduc R.F. Hartl: Op	ction to Optimal timale Kontrolle	Control Theory, okonomischer F	Springer, 1980. Prozesse, Berlin, 1	986.	
Course language Slovak	:					
Notes:	Notes:					
Course assessment Total number of assessed students: 109						
A	В	С	D	E	FX	
26.61 25.69 22.02 15.6 10.09 0.0						
Provides: prof. RNDr. Katarína Cechlárová, DrSc.						
Date of last modification: 14.02.2014						
Approved: prof. H	RNDr. Stanisla	v Jendrol', DrSc.				

University: P. J.	Šafá	rik Univers	ity in Košice			
Faculty: Faculty	y of S	cience				
Course ID: ÚIN DBS/10	JF/	Course na	me: Database sy	stems for Mathe	maticians	
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present						
Number of crea	lits: 6)				
Recommended	seme	ster/trimes	ster of the course	e: 1., 3.		
Course level: II	•					
Prerequisities:						
Conditions for	cours	e completi	on:			
Learning outco Acquired basic	mes: conce	epts and tec	hniques of relation	onal database the	ory and correspon	nding software.
Data models. I and integrity c Nested queries modelling. Fund Recommended	and so ctiona	ages for de aints. Quer everal table il dependen iture:	efining and man ies: select, when es: join, union, pr cy and normaliza	ipulating data (fre, group by, ag imary, foreign k tion.	DDL, DML). Ta ggregate and sys ey. Relational alg	bles, attributes stem functions. gebra. Database
 S. Krajčí: Databázové systémy, UPJŠ, 2005 2. J. Date C.J., Database Design and Relational Theory, O'Reilly, 2012 Atkinson, P., Vierra, R., BEGINNING MICROSOFT SQL SERVER 2012 PROGRAMMING, John Wiley - Wrox, 2012 Itzik Ben-Gan, Microsoft SQL Server, 2012 T-SQL Fundamentals, O'Reilly, 2012 L. Davidson, J.M. Moss, Pro SQL Server 2012 Relational database Design and Implementation, APRESS 2012 						
Course languag	ge:					
Notes:						
Course assessment Total number of assessed students: 717						
А		В	С	D	Е	FX
12.41 9.34 13.25 20.36 34.45 10.18						
Provides: doc. I	RNDr	. Csaba Tör	ök, CSc.			
Date of last mo	difica	tion: 03.02	2.2014			
Approved: prof	. RNI	Dr. Stanisla	v Jendrol', DrSc.			

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚMV/ DPP1a/14	Course ID: ÚMV/ Course name: Diploma Project I DPP1a/14				
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 1					
Recommended seme	ster/trimester of the course	:: 2.			
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 assessed students: 79					
abs n					
98.73 1.27					
Provides:					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

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University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚMV/ DPP1b/14	Course ID: ÚMV/ Course name: Diploma Project II DPP1b/14				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: sent				
Number of credits: 1					
Recommended seme	ster/trimester of the cour	se: 3.			
Course level: II.					
Prerequisities: ÚMV	/DPP1a/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 asses	ssed students: 68				
abs n					
98.53 1.47					
Provides:					
Date of last modification: 14.02.2014					
Approved: prof. RNI	Approved: prof. RNDr. Stanislav Jendrol', DrSc.				

University: P. J	. Šafárik Univers	sity in Košice				
Faculty: Facult	y of Science					
Course ID: ÚM DPO/14	Course ID: ÚMV/ Course name: Diploma thesis and its defence					
Course type, so Course type: Recommende Per week: Pe Course metho	cope and the me d course-load (h r study period: od: present	thod: nours):				
Number of cree	dits: 20					
Recommended	semester/trime	ster of the cours	e:			
Course level: I	[
Prerequisities:						
Conditions for	course complet	ion:				
Learning outco	omes:					
Brief outline of	f the course:					
Recommended	literature:					
Course langua Slovak	ge:					
Notes:						
Course assessn Total number o	nent f assessed studer	nts: 9				
А	В	C	D	Е	FX	
44.44	44.44 33.33 11.11 0.0 0.0 11.11					
Provides:					•	
Date of last mo	dification: 14.0	2.2014				
Approved: prot	f. RNDr. Stanisla	v Jendrol', DrSc.				

University: P J	Šafárik Univers	ity in Košice				
Faculty: Faculty	of Science					
Course ID: ÚM FAN/10	V/ Course na	ame: Functional a	analysis			
Course type, sco Course type: L Recommended Per week: 3 / 1 Course method	ppe and the met ecture / Practice course-load (h Per study peri l: present	thod: ours): od: 42 / 14				
Number of cred	its: 6					
Recommended s	semester/trimes	ster of the cours	e: 2.			
Course level: II.						
Prerequisities:						
Conditions for c exam	course completi	on:				
Learning outcom Understanding o	nes: If the basic rigor	ous ideas of App	lied Functional	Analysis.		
Brief outline of E Linear spaces. A spaces. Linear to of L(p) spaces. Closed graph the	the course: Algebraic base a ppological space Hilbert space. A corem. Hahn-Ba	and dimension. L e. Locally convex Applications of B nach theorem. Sp	Linear operators space. Normed Baire category th pectrum of linear	and functionals space. L(p) spa eorem. Open m r compact operat	. Algebraic dual ces. Dual spaces apping theorem. tor.	
Recommended I A. M. Bruckner,	iterature: J. B. Bruckner,	B. S. Thomson:	Real Analysis, P	Prentice Hall, 19	97.	
Course languag Slovak or Englis	e: sh					
Notes:						
Course assessment Total number of assessed students: 45						
A	В	С	D	E	FX	
8.89	8.89 6.67 15.56 13.33 44.44 11.11					
Provides: prof. RNDr. Jozef Doboš, CSc.						
Date of last modification: 14.02.2014						
Approved: prof.	RNDr. Stanisla	v Jendrol', DrSc.				
L						

University: P. J	University: P. J. Šafárik University in Košice					
Faculty: Facult	y of Science					
Course ID: ÚM THR/10	V/ Course na	ame: Game theor	ry			
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 crea	lits: 6					
Recommended	semester/trimes	ster of the cours	e: 1., 3.			
Course level: II	•					
Prerequisities:						
Conditions for Two written exa examination.	course completi ams dring the ser	on: nester. The final	assessment is b	ased on the writte	en tests and oral	
Learning outco To learn the ba situations from	mes: sic methods of g everyday life as	game theory. We simple games.	also require that	at students will be	e able to model	
Brief outline of Examples of ga theory of utility games: core, Sh The students sh duality theory a	the course: mes. Extensive Matrix games an apley value. Eco ould have basic k nd simplex meth	form of a game, nd their solution. nomic application nowledge in probody.	value of the ga Bimatrix games ons of game theo pability theory an	ame. Von Neumar Theory of negotia ory. nd linear programi	nn Morgenstern ations. n-person ming (including	
 Recommended literature: 1. K. Binmore, Fun and games, D.C. Heath, 1992 2. M. Chobot, F. Turnovec, V. Ulašin, Teória hier a rozhodovania, Alfa, Bratislava, 1991. 3. G. Owen, Game Theory, Academic Press (existuje ruský preklad). 4. L.C. Thomas, Games, Theory and Applications, Wiley, New York. 5. H.S. Bierman, L.Fernandez, Game Theory with Economic Applications, Addison-Wesley, 1998 						
Course language: Slovak						
Notes:						
Course assessment Total number of assessed students: 112						
А	В	С	D	Е	FX	
17.86	22.32	17.86	24.11	16.96	0.89	
Provides: prof.	RNDr. Katarína	Cechlárová, DrS	c.			

Date of last modification: 14.02.2014

Approved: prof. RNDr. Stanislav Jendrol', DrSc.

University: P. J. Š	Šafárik Univers	ity in Košice				
Faculty: Faculty	of Science			-		
Course ID: ÚMV GZB/10	Course na	me: Geometric 1	transformations			
Course type, scop Course type: Le Recommended Per week: 2 / 1 Course method:	pe and the met ecture / Practice course-load (h Per study perio present	thod: ours): od: 28 / 14				
Number of credit	ts: 5					
Recommended se	emester/trimes	ster of the cours	e: 3.			
Course level: II.						
Prerequisities:						
Conditions for co Exam realized by	ourse completi a test.	on:				
Learning outcom To obtain a deepe	nes: er knowledge of	n projective spac	es and transform	nation groups.		
Brief outline of the Projective spaces clasification of co	he course: b, Projective tra bllineations.	insformations, co	ollineations. Fixe	ed elements of a	collineation. A	
Recommended li S. V. Duzhin, B. I	terature: D. Chebotarevs	ky: Transformati	on Groups for B	Beginers, AMS 20)04	
Course language Slovak	:					
Notes:						
Course assessment Total number of assessed students: 24						
Α	В	С	D	E	FX	
33.33	33.33 29.17 25.0 8.33 4.17 0.0					
Provides: doc. RNDr. Jaroslav Ivančo, CSc.						
Date of last modi	Date of last modification: 14.02.2014					
Approved: prof. 1	RNDr. Stanisla	v Jendrol', DrSc.				

University: P. J. Šafărik University in Košice Faculty: Faculty of Science Course ID: ÚMV/ Course name: Graph theory TGF/10 Course type, scope and the method: 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 credits: 4 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Coral exam. Coral exam. Learning outcomes: Oral exam. Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendro's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jg21695. 2. J. A. Bondy, U.S. R. Murty: Graph Theory, Springer 2008. J. Czap, S. Jendrol', F. Kardos, R. Sotak: Facial parity edge colouring of plane pseudographs, Discrete Math.		
Faculty: Faculty of Science Course ID: ÚMV/ TGF/10 Course name: Graph theory 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 credits: 4 Recommended semester/trimester of the course: 1. Course level: 11. Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on sclected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem). Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabriei and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jg21695. 2. J. A. Bondy, U. S. R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardos, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. 4. J. Czap, S. Jendrol', W. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', H. J. Voss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete	University: P. J. Šafá	rik University in Košice
Course ID: ÚMV/ Course name: Graph theory TGF/10 Course type: Lecture Recommended course-load (hours): Per weck: 2 Per study period: 28 Course method: present Number of credits: 4 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Oral exam. Course level: II. Pasic Knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/igt21695. 2. A. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', K. Woigt: Parity vertex coloring of plane graphs, Discrete Math. 311(2011), 2735-2740. 4. J. Czap, S. Jendrol', R. Soták, F. Škrabuľáková, Facial non-repe	Faculty: Faculty of S	cience
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per weck: 2 Per study period: 28 Course method: present Number of credits: 4 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedcan solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/git21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Staki: Facial parity edge colouring of plane pseudographs, Discrete Math. 3112(2012), 2735-2740.	Course ID: ÚMV/ TGF/10	Course name: Graph theory
Number of credits: 4 Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. 4. J. Czap, S. Jendrol', R. Soták, E. Škrabuľáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S. Jendrol', R. Soták, E. Škrabuľáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S.	Course type, scope a Course type: Lectur Recommended cour Per week: 2 Per stu Course method: pre	nd the method: e rse-load (hours): dy period: 28 rsent
Recommended semester/trimester of the course: 1. Course level: II. Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. 4. J. Czap, S. Jendrol', R. Soták, E. Skrabul'áková, Facial non-repetitive edge-coloring of plane graphs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', R. Soták, E. Skrabul'áková, Facial non-repetitive edge-coloring of plane	Number of credits: 4	
Course level: II. Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', R. Soták, E. Skrabuľáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S. Jendrol, M. Voss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete Math. 313(2013), 406-421.	Recommended seme	ster/trimester of the course: 1.
Prerequisities: Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 311(2012), 2735-2740. 4. J. Czap, S. Jendrol', M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', R. Soták, E. Skrabuľáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S. Jendrol', HJ. V	Course level: II.	
 Conditions for course completion: Oral exam. Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol''s theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 311(2012), 2735-2740. J. Czap, S. Jendrol', M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. F. Havet, S. Jendrol', R. Soták, E. Skrabułáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. S. Lendrol', HJ. Voss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete Math. 313(2013), 406-421. Course language: Slovak	Prerequisities:	
 Learning outcomes: Basic knowledge concerning methods how new discoveries in matematics. Deeper knowledge on selected topics in graph theory. Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. J. Czap, S. Jendrol', M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. F. Havet, S. Jendrol', R. Soták, E. Škrabul'áková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. S. J. Course language: 	Conditions for cours Oral exam.	e completion:
 Brief outline of the course: Embeddings graphs into surfaces. Global properties of embedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and Archimedean solids. Introduction into the theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and Jendrol's theorem, light paths. Introduction into colourings of embedded graphs: The four colour theorem, rainbow colourings, parity colourings, and non-repetitive colourings. Words and colourings. Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. 4. J. Czap, S. Jendrol', M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', R. Soták, E. Škrabuľáková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S. Jendrol', HJ. Voss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete Math. 313(2013), 406-421. Course language: Slovak 	Learning outcomes: Basic knowledge com selected topics in gray	cerning methods how new discoveries in matematics. Deeper knowledge on ph theory.
 Recommended literature: 1. J. Barat, J. Czap: Facial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, DOI:10.1002/jgt21695. 2. J. A. Bondy, U.S R. Murty: Graph Theory, Springer 2008. 3. J. Czap, S. Jendrol', F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, Discrete Math. 312(2012), 2735-2740. 4. J. Czap, S. Jendrol', M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. 311(2011), 512-520. 5. G. Chartrand, L. Lesniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. 6. F. Havet, S. Jendrol', R. Soták, E. Škrabul'áková, Facial non-repetitive edge-coloring of plane graphs, J. Graph Theory 66(2011), 38-48. 7. S. Jendrol', HJ. Voss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete Math. 313(2013), 406-421. 	Brief outline of the c Embeddings graphs i Global properties of e Archimedean solids. Introduction into the Jendrol''s theorem, lig Introduction into colo parity colourings, and Words and colourings	ourse: nto surfaces. mbedded graphs: Oblique graphs (Voigt and Walther's theorem), Platonic and theory of light graphs: Kotzig's theorem, Borodin's theorem, Fabrici and ght paths. purings of embedded graphs: The four colour theorem, rainbow colourings, I non-repetitive colourings.
Course language: Slovak	Recommended litera 1. J. Barat, J. Czap: F DOI:10.1002/jgt2169 2. J. A. Bondy, U.S R 3. J. Czap, S. Jendrol Discrete Math. 312(2 4. J. Czap, S. Jendrol 311(2011), 512-520. 5. G. Chartrand, L. L 6. F. Havet, S. Jendrol graphs, J. Graph Theo 7. S. Jendrol', HJ. W Math. 313(2013), 400	 ture: acial nonrepetitive verxex coloring of plane graphs, J. Graph Theory, 5. Murty: Graph Theory, Springer 2008. F. Kardoš, R. Soták: Facial parity edge colouring of plane pseudographs, 012), 2735-2740. M. Voigt: Parity vertex colouring of plane graphs, Discrete Math. esniak, P. Zhang: Graphs and digraphs, CRC Press, Boca Raton 2011. I', R. Soták, E. Škrabuľáková, Facial non-repetitive edge-coloring of plane ory 66(2011), 38-48. oss: Light subgraphs of graphs embedded in the plane - A Survey, Discrete 5-421.
	Course language: Slovak	

Notes:						
Course assessment Total number of assessed students: 45						
А	В	С	D	Е	FX	
46.67	17.78	13.33	13.33	8.89	0.0	
Provides: prof.	RNDr. Stanislav	Jendrol', DrSc.		•	·	
Date of last modification: 14.02.2014						
Approved: prof. RNDr. Stanislav Jendrol', DrSc.						

University: P. J.	University: P. J. Šafárik University in Košice					
Faculty: Faculty	of Science					
Course ID: ÚM TGP/10	V/ Course na	ame: Group theor	у			
Course type, sco Course type: L Recommended Per week: 2 / 1 Course method	ope and the me ecture / Practice course-load (h Per study peri l: present	thod: cours): od: 28 / 14				
Number of cred	its: 5					
Recommended	semester/trime	ster of the course	e: 2., 4.			
Course level: II.						
Prerequisities:						
Conditions for a Awarded accord	course completing to written an	i on: nd oral examination	on.			
Learning outcome The students lear parts of mathem	mes: arn basic concep atics.	ots and methods of	of group theory	and their applicat	tions in various	
Brief outline of Groups of symi subgroups, facto groups. Groups	the course: metries, abstract prization. Classi in linear algebra	t groups. Subgrou fication of finitely	ups, orders of or generated abe	elements, cyclic g lian groups. Sylov	groups. Normal v subgroups, p-	
Recommended S. MacLane, G. L. Beran: Grupy D.A.R. Wallace: J. J. Rotman: Ac	literature: Birkhoff: Algeb a svazy, SNTL Groups, Rings lvanced Moderr	ora, Alfa Bratislav Praha, 1974 and Fields, Sprin Algebra, Amer.	ra, 1973 ger 1998 Math. Soc., Pro	vidence 2010		
Course languag Slovak or Englis	e: sh					
Notes:						
Course assessm Total number of	ent assessed studer	its: 35				
Α	В	С	D	E	FX	
42.86	42.86 25.71 17.14 5.71 8.57 0.0					
Provides: doc. R	Provides: doc. RNDr. Miroslav Ploščica, CSc.					
Date of last modification: 14.02.2014						
Approved: prof.	RNDr. Stanisla	v Jendrol', DrSc.				

University: P. J	. Šafárik Univers	sity in Košice			
Faculty: Facult	y of Science				
Course ID: KFa DF2p/03	aDF/ Course na	DF/ Course name: History of Philosophy 2 (General Introduction)			
Course type, sc Course type: I Recommended Per week: 2 / 2 Course metho	ope and the met Lecture / Practice d course-load (h l Per study peri d: present	thod: ; ours): od: 28 / 14			
Number of crea	lits: 4				
Recommended	semester/trimes	ster of the cours	e: 2.		
Course level: I.	, 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	ient f assessed studen	nts: 729			
A	В	С	D	Е	FX
60.49	13.85	12.76	8.78	3.43	0.69
Provides: doc. 1 Mayerová, PhD	PhDr. Pavol Thol ., Mgr. Róbert St	lt, PhD., mim.pro ojka, PhD.	of., Doc. PhDr. Pe	eter Nezník, CSc	., PhDr. Katarína
Date of last mo	dification: 26.01	1.2014			
Approved: prof		v Jendrol', DrSc.			

University: P. J.	Šafárik Univers	ity in Košice				
Faculty: Faculty	Faculty: Faculty of Science					
Course ID: KFa KDF/05	DF/ Course name: Chapters from History of Philosophy of 19th and 20th Centuries (General Introduction)					
Course type, sco Course type: P 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 cred	lits: 2					
Recommended	semester/trimes	ster of the cours	e: 2.			
Course level: I.,	II					
Prerequisities:						
Conditions for o	course completi	on:				
Learning outco	mes:					
Brief outline of	the course:					
Recommended	literature:					
Course languag	je:					
Notes:						
Course assessment Total number of assessed students: 10						
A	A B C D E FX					
50.0	50.0 20.0 10.0 0.0 10.0 10.0					
Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof.						
Date of last mo	Date of last modification: 26.01.2014					
Approved: prof.	. RNDr. Stanisla	v Jendrol', DrSc.				

University: P. J. Šafá	rik University in	Košice		
Faculty: Faculty of S	cience			
Course ID: R UPJŠ/ IB10/14	Course ID: R UPJŠ/ Course name: IB10 - Medzinárodný certifikát ECo-C 310/14			
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 credits: 1	6			
Recommended seme	ster/trimester o	f the course:		
Course level: I., I.II.,	II.			
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
Course assessment Total number of asses	ssed students: 0			
abs n neabs				
0.0 0.0 0.0				
Provides:				
Date of last modifica	tion: 11.08.2014	ļ		
Approved: prof. RNI	Dr. Stanislav Jene	drol', DrSc.		

University: P. J. Šafá	rik University i	n Košice		
Faculty: Faculty of S	cience			
Course ID: R UPJŠ/ IB11/14	Course ID: R UPJŠ/ Course name: IB11 - Medzinárodný certifikát ECDL B11/14			
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method rse-load (hours y period: esent	l: s):		
Number of credits: 1	4			
Recommended seme	ster/trimester	of the course:		
Course level: I., I.II.,	II.			
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
Course assessment Total number of asses	ssed students: 0)		
abs n neabs				
0.0 0.0 0.0				
Provides:				
Date of last modifica	tion: 11.08.201	14		
Approved: prof. RNI	Dr. Stanislav Jer	ndrol', DrSc.		

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB12/14	Course ID: R UPJŠ/ Course name: IB12 - Používanie, administrácia a vývoj v systéme SAP B12/14				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: sent				
Number of credits: 5	4				
Recommended seme	ster/trimester of the course:				
Course level: 1., 1.11.,	11.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:	ľ	ł			
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Dr. Stanislav Jendrol', DrSc.				

University: P. J. Šafán	rik University in Košio	ce		
Faculty: Faculty of Seculty	cience			
Course ID: R UPJŠ/ IB1/14	Durse ID: R UPJŠ/ Course name: IB1 - Etika v biomedicínskych vedách pre zdravotnícku prav 1/14			
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: sent			
Number of credits: 1	6			
Recommended seme	ster/trimester of the	course:		
Course level: I., I.II.,	II.			
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
Course assessment Total number of asses	sed students: 0			
abs n neabs				
0.0 0.0 0.0				
Provides:	1		1	
Date of last modifica	tion: 11.08.2014			
Approved: prof. RNI	Dr. Stanislav Jendrol', 1	DrSc.		

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: R UPJŠ/ IB2/14	Course ID: R UPJŠ/ Course name: IB2 - Právne minimum – súkromnoprávne aspekty B2/14				
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 credits: 1					
Recommended seme	ster/trimester of the course:				
Course level: 1., 1.11.,	11				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:					
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Approved: prof. RNDr. Stanislav Jendrol', DrSc.				

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB3/14	Course ID: R UPJŠ/ Course name: IB3 - Právne minimum – verejnoprávne aspekty 33/14				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: sent				
Number of credits: 1	6				
Recommended seme	ster/trimester of the course:				
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:					
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Dr. Stanislav Jendrol', DrSc.				

University: P. J. Šafá	rik University in Košic	e			
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB4/14	Course ID: R UPJŠ/ Course name: IB4 - Projektový manažment B4/14				
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 credits: 2	20				
Recommended seme	ster/trimester of the c	ourse:			
Course level: I., I.II.,	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	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:	I		I		
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Dr. Stanislav Jendrol', D	PrSc.			

University: P. J. Šafá	rik University in	Košice			
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB5/14	Course ID: R UPJŠ/ Course name: IB5 - Manažérska ekonomika 35/14				
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 credits: 1	6				
Recommended seme	ster/trimester o	f the course:			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:					
Date of last modifica	tion: 11.08.2014	ļ			
Approved: prof. RNI	Dr. Stanislav Jene	drol', DrSc.			

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB6/14	ourse ID: R UPJŠ/ Course name: IB6 - Riešenie konfliktných a krízových situácií v školskej praxi				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	nd the method: rse-load (hours): y period: rsent				
Number of credits: 1	6				
Recommended seme	ster/trimester of the cour	se:			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs	abs n neabs				
0.0 0.0 0.0					
Provides:	1		1		
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Dr. Stanislav Jendrol', DrSc				
University: P. J. Šafá	rik University in	Košice			
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Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB7/14	Course ID: R UPJŠ/ Course name: IB7 - Štatistika pre prax IB7/14				
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 credits: 1	6				
Recommended seme	ster/trimester o	f the course:			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs		n	neabs		
0.0		0.0	0.0		
Provides:	I		1		
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNI	Dr. Stanislav Jend	lrol', DrSc.			

University: P. J. Šafár	ik University in Košice				
Faculty: Faculty of So	vience				
Course ID: R UPJŠ/ IB8/14	Course ID: R UPJŠ/ Course name: IB8 - Environmentálne aspekty záťaže životného prostredia IB8/14				
Course type, scope an Course type: Recommended cour Per week: Per study Course method: pre	nd the method: se-load (hours): y period: sent				
Number of credits: 1	6				
Recommended semes	ster/trimester of the course:				
Course level: I., I.II.,	II				
Prerequisities:					
Conditions for course	e completion:				
Learning outcomes:					
Brief outline of the co	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	sed students: 0				
abs	n	neabs			
0.0	0.0 0.0 0.0				
Provides:	1				
Date of last modifica	tion: 11.08.2014				
Approved: prof. RNE	Dr. Stanislav Jendrol', DrSc.				

University: P. J. Šafá	rik University in	Košice			
Faculty: Faculty of S	cience				
Course ID: R UPJŠ/ IB9/14	Course ID: R UPJŠ/ Course name: IB9 - Medzinárodný certifikát TOEFL IB9/14				
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 credits: 1	7				
Recommended seme	ster/trimester o	of the course:			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 0				
abs		n	neabs		
0.0	0.0 0.0 0.0				
Provides:					
Date of last modification: 11.08.2014					
Approved: prof. RNI	Dr. Stanislav Jen	droľ, DrSc.			

University: P. J. Š	afárik Univers	ity in Košice			
Faculty: Faculty of	of Science				
Course ID: KFaD IH2/03	Course ID: KFaDF/ Course name: Idea Humanitas 2 (General Introduction) IH2/03				
Course type, scop Course type: Pra Recommended c Per week: 2 Per Course method:	e and the met actice course-load (he study period: present	hod: ours): 28			
Number of credit	s: 2				
Recommended se	mester/trimes	ter of the cours	e: 3.		
Course level: II.					
Prerequisities:					
Conditions for co	urse completi	on:			
Learning outcom	es:				
Brief outline of th	e course:				
Recommended lit	erature:				
Course language:	;				
Notes:					
Course assessmer Total number of a	nt ssessed studen	ts: 4			
A	В	С	D	Е	FX
75.0	25.0	0.0	0.0	0.0	0.0
Provides: Doc. Ph	Dr. Peter Nezr	ník, CSc.	<u>I</u>	<u>I</u>	<u>I</u>
Date of last modif	fication: 26.01	.2014			
Approved: prof. F	RNDr. Stanislav	v Jendrol', DrSc.			

University: P. J.	Šafárik Unive	ersity in Košice				
Faculty: Faculty	of Science			c		
Course ID: ÚM TIN/10	V/ Course	name: Information	n theory			
Course type, sc Course type: I Recommended Per week: 2 Pe Course metho	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 cred	lits: 4					
Recommended	semester/trin	ester of the cours	se: 1., 3.			
Course level: II						
Prerequisities:						
Conditions for A student is eva chosen by him/l at maximum). H 50-59 p., FX	course comple luated accordin ner at random, Evaluation scal 0-49 p.	etion: ng to an oral exami one from the grou e: A 90-100 p.,	nation during wh p A and one fror B 80-89 p., C	tich he/she answe n the group B (bo C 70-79 p., D .	rs two questions oth for 50 points 60-69 p., E	
Learning outco A student gets a	mes: cquainted with	a mathematical att	empt to solve sor	ne problems of co	omputer science.	
Brief outline of A quantitative c Inequalities invo Data compression	the course: haracteristic o olving mutual on.	f an information. E information and er	Entropy of a rand ntropy, respective	om variable. Mut ely. Typical seque	ual information. ence, typical set.	
Recommended T. M. Cover, J T. K. Moon, Inf http://digitalcon	Recommended literature: T. M. Cover, J. A. Thomas, Elements of Information Theory, Wiley, 1991 (2nd ed. 2006) T. K. Moon, Information Theory (free online course materials), available at the address http://digitalcommons.usu.edu/ocw.ece/3/					
Course languag Slovak	ge:					
Notes:						
Course assessment Total number of assessed students: 84						
А	В	С	D	E	FX	
38.1	38.1 19.05 19.05 13.1 5.95 4.76					
Provides: prof.	RNDr. Mirko	Horňák, CSc.				
Date of last mo	dification: 14	02.2014				
Approved: prof	Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J.	Šafárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: ÚM TZV/10	MV/ Course name: Lattice theory				
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of cred	its: 5				
Recommended	semester/trimes	ster of the cours	e: 2., 4.		
Course level: II.					
Prerequisities:					
Conditions for a Awarded accord	course completi	on: nd oral examination	on.		
Learning outcome The students lead in various parts	mes: rn basic concep of mathematics.	ts and methods of	f lattice theory ar	nd gain the ability	y to apply them
Brief outline of Ordered sets and Completeness and	the course: d lattices. Distri nd completions.	butivity and mod Formal concept a	lularity. Ideals an analysis.	id set-theoretical	representation.
Recommended G. Grätzer: Gen B. A. Davey, H. M. Kolibiar: Alg	Recommended literature: G. Grätzer: General Lattice Theory (2nd edition), Birkhäuser, 1998 B. A. Davey, H. A. Priestley: Introduction to lattices and order, Cambridge University Press 1990 M. Kolibiar: Algebra a príbuzné disciplíny, Alfa Bratislava, 1991				
Course languag Slovak	e:				
Notes:					
Course assessment Total number of assessed students: 17					
A	В	С	D	Е	FX
47.06	11.76	23.53	17.65	0.0	0.0
Provides: doc. R	Provides: doc. RNDr. Miroslav Ploščica, CSc.				
Date of last mod	Date of last modification: 14.02.2014				
Approved: prof.	Approved: prof. RNDr. Stanislav Jendrol', DrSc.				

Faculty of Science Course ID: ÚMV/ MTE/10 Course name: Mathematical economics Course type, scope and the method: Course type, scope and the method: Course type i Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present Mumber of credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Per requisities: Conditions for course completion: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economics. Existence of core. Walrasian equilibrium. Optimality and decentralization. Productine economics. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microceonomics is also invited. Recommended literature: Storak Course language: Slovak Storak Course language: Slovak Optimality in 2.3.01 Course assessment: 113 Course language: Slovak	University: P. J.	Šafárik Univers	ity in Košice				
Course ID: ÚMV/ MTE/10 Course type, scope and the method: Course type, scope and the method: Course type, scope and the method: Course type Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present Scope and the method: Course method: present Number of credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Conditions for course completion: The continue of the course: 2. To learn basic notions and methods of the modern mathematical economics. The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economics. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economics. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C. D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 Noth Holland, 3. A. Takayama: Matematical conomics, Cambridge University Press, 1985 Course language: Slovak B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarina Cechlárová, DrSc. D E FX 23.89 23.01 23.01 15.93 9.73 4	Faculty: Faculty	of Science					
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present Number of credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Convoitions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. 1. C.D. Alignantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course assessed students: 113 A B C D E FX 2.3.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarina Cechlárová, DrSc. Dante of last modification: 14.02.2014	Course ID: ÚM MTE/10	V/ Course na	ame: Mathematic	al economics			
Number of credits: 5 Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Conditions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Cause assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93	Course type, sco Course type: L Recommended Per week: 3 Pe Course methoo	Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Recommended semester/trimester of the course: 2. Course level: II. Prerequisities: Conditions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2 Course language: Slovak Solvak Notes: Course assessment Total number of assessed students: 113 A B C D E FX Total number of assessed students: 113 A B C D E FX	Number of cred	its: 5					
Course level: 11. Prerequisities: Conditions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarina Cechlárová, DrSc.	Recommended	semester/trimes	ster of the cours	e: 2.			
Prerequisities: Conditions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. <td colspa<="" td=""><td>Course level: II.</td><td></td><td></td><td></td><td></td><td></td></td>	<td>Course level: II.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Course level: II.					
Conditions for course completion: Two written exams in solving problems. Final evaluation is based on written exams and theoretical oral exam. Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014 Ameravad: arcf. RNDr. Stanislay Landrof. DrSc.	Prerequisities:						
Learning outcomes: To learn basic notions and methods of the modern mathematical economics. Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarina Cechlárová, DrSc. Date of last modification: 14.02.2014	Conditions for c Two written exa oral exam.	course completi ms in solving pr	on: oblems. Final eva	aluation is based	on written exams	s and theoretical	
Brief outline of the course: The notion of exchange economy. Edgeworth box. Preferences and utility functions. Optimality in exchange economies. Existence of core. Walrasian equilibrium. Optimality and decentralization. Production economies. Basic knowledge of convex analysis and topology is recommended. Basic knowledge in microeconomics is also invited. Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014	Learning outco To learn basic no	mes: otions and metho	ods of the moder	n mathematical e	conomics.		
Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014	Brief outline of The notion of ex exchange econo Production econ Basic knowledg microeconomics	the course: achange econom mies. Existence omies. ge of convex a s is also invited.	y. Edgeworth box of core. Walrasi analysis and top	x. Preferences and an equilibrium. (pology is recom	d utility function Optimality and commended. Basic	s. Optimality in lecentralization. knowledge in	
Course language: Slovak Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014	 Recommended literature: 1. C.D. Aliprantis, D.J. Brown, O. Burkinshaw: Existence and optimality of competitive equilibria, Springer 1989 2. W. Hildenbrand, A.P. Kirman: Equilibrium analysis, North Holland, 3. A. Takayama: Mathematical economics, Cambridge University Press, 1985 						
Notes: Course assessment Total number of assessed students: 113 A B C D E FX 23.89 23.01 23.01 15.93 9.73 4.42 Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014	Course languag Slovak	e:					
Course assessment Total number of assessed students: 113ABCDEFX23.8923.0123.0115.939.734.42Provides: prof. RNDr. Katarína Cechlárová, DrSc.Date of last modification: 14.02.2014Annroved: prof. RNDr. Stanislay Jendrol ^o DrSc	Notes:						
ABCDEFX23.8923.0123.0115.939.734.42Provides: prof. RNDr. Katarína Cechlárová, DrSc.Date of last modification: 14.02.2014Annroved: prof. RNDr. Stanislay Jendrof. DrSc	Course assessment Total number of assessed students: 113						
23.8923.0123.0115.939.734.42Provides: prof. RNDr. Katarína Cechlárová, DrSc.Date of last modification: 14.02.2014Annroved: prof. RNDr. Stanislav Jendrol'. DrSc.	A	В	С	D	Е	FX	
Provides: prof. RNDr. Katarína Cechlárová, DrSc. Date of last modification: 14.02.2014 Annroved: prof. RNDr. Stanislay Jendrol', DrSc.	23.89	23.01	23.01	15.93	9.73	4.42	
Date of last modification: 14.02.2014 Approved: prof RNDr Stanislay Jendrol' DrSc	Provides: prof. I	Provides: prof. RNDr. Katarína Cechlárová, DrSc.					
Annroved: prof RNDr Stanislav Jendrol' DrSc	Date of last mod	lification: 14.02	2.2014				
	Approved: prof.	RNDr. Stanisla	v Jendrol', DrSc.				

University: P. J.	Šafárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: ÚM MSM/14	V/ Course na	me: Mathematic	cal modelling		
Course type, sco Course type: Recommended Per week: Per Course methoo	ope and the met l course-load (h • study period: d: present	thod: ours):			
Number of cred	lits: 4				
Recommended	semester/trimes	ster of the cours	e:		
Course level: II.					
Prerequisities:					
Conditions for Acquiring the re	course completi equired number o	on: of credits in the s	tructure defined	by the study plan	1.
Learning outco Evaluation of st	mes: udent's compete	nces with respec	t to the profile c	f the graduate.	
Brief outline of	the course:				
Recommended	literature:				
Course languag Slovak	ge:				
Notes:					
Course assessment Total number of assessed students: 2					
A	В	С	D	E	FX
0.0	100.0	0.0	0.0	0.0	0.0
Provides:	Provides:				
Date of last mod	Date of last modification: 14.02.2014				
Approved: prof.	. RNDr. Stanisla	v Jendrol', DrSc.			

University: P. J. Š	Safárik Univers	ity in Košice				
Faculty: Faculty of	of Science					
Course ID: ÚMV TMT/10	ourse ID: ÚMV/ Course name: Matroid theory MT/10					
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present						
Number of credit	ts: 5					
Recommended se	emester/trimes	ter of the course	e: 1., 3.			
Course level: II.						
Prerequisities:						
A student is evalu chosen by him/he group B (35 poin D 60-69 p., E	ated according er at random, c ts at maximum 50-59 p., FX	to an oral examinone from the group. (). Evaluation sca (0-49 p.	ation during wh up A (65 points le: A 90-100	ich he/she answei at maximum) an p., B 80-89 p.	rs two questions ad one from the , C 70-79 p.,	
Learning outcom A student gets acc in various discipli	es: quainted with b ines of discrete	basic notions of m mathematics.	natroid theory an	nd possibilities of	using matroids	
Brief outline of the Independent sets matroids. Hyperp	he course: and bases. Pro lanes.	operties of rank	function. Closu	re operator. Circ	uits. Duality in	
Recommended lin D. J. A. Welsh: M J. Oxley, Matroid	terature: Iatroid Theory, Theory, Oxfor	Academic Press, d University Pres	1976 ss, 2010			
Course language: Slovak	:					
Notes:						
Course assessment Total number of assessed students: 22						
A	В	С	D	E	FX	
22.73	22.73	18.18	4.55	22.73	9.09	
Provides: prof. R	NDr. Mirko Ho	orňák, CSc.		·		
Date of last modi	fication: 14.02	.2014				
Approved: prof. I	RNDr. Stanisla	v Jendrol', DrSc.				

						
University: P. J.	Šafárik Univers	sity in Košice				
Faculty: Faculty	of Science					
Course ID: ÚBI MOB2/10	ID: ÚBEV/ Course name: Molecular Biology					
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present						
Number of cred	lits: 3					
Recommended	semester/trime	ster of the cours	e: 2.			
Course level: I.,	, II.					
Prerequisities:						
Conditions for	course complet	ion:				
Learning outco Familiarize stud and their work, gene expression	mes: lents with the st focusing primar and cell cycle.	ructure, propertie ly on the molecul	es and function ar mechanisms	s of information 1 of regulation of D	nacromolecules NA replication,	
Structure and p mitotic and mei extrachromoson The human gene and editing. Tra protein interacti the cell cycle.	roperties of info otic chromosom nal DNA. Repa ome. Mobile gen inslation and po ons. Regulation	ormation macrom les. Dynamics of ir of DNA damag netic elements. Tr sttranslational mo of the expression	olecules. Mole chromosomes. ge. Genome of anscription and odifications. Sp of prokaryotic	ecular structure of Replication of ch prokaryotic and e posttranscriptiona ecific protein deg and eukaryotic ge	E chromatin and aromosomal and eukaryotic cells. al modifications radation. DNA- enes. Control of	
Recommended literature: E. Mišúrová:Molekulárna biológia. Učebné texty, PF UPJŠ Košice, 1999 E. Mišúrová, P. Solár: Molekulová biológia. Učebné texty, PF UPJŠ, 2007 S.Rosypal:Úvod do molekulární biologie. Grafex Blansko, Brno,1999 Alberts, D.Bray, J. Lewis a kol.: Molecular Biology of the Cell, Academic Press, London, 1994 D.P. Clark: Molecular Biology, Elsevier Academic Press, London, 2005						
Course languag	ge:					
Notes:						
Course assessm Total number of	ent assessed studer	nts: 0				
А	В	C	D	E	FX	
0.0	0.0	0.0	0.0	0.0	0.0	
Provides: doc. F	RNDr. Peter Sola	ir, PhD.		·		
Date of last mo	dification: 13.0	2.2014				

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚTVŠ/ NJ//13	Course ID: ÚTVŠ/ Course name: Naval Yachting NJ//13			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present				
Number of credits: 2				
Recommended seme	ster/trimester of the cours	e:		
Course level: I., 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: 2				
	abs n			
100.0 0.0				
Provides: doc. Mgr. Rastislav Feč, PhD.				
Date of last modification: 15.01.2014				
Approved: prof. RNDr. Stanislav Jendrol', DrSc.				

University: P. J	. Šafárik Univer	sity in Košice			
Faculty: Facult	y of Science				
Course ID: Del UPJŠ/PPZ/13	ID: Dek. PF Course name: Personality Development and Key Competences for Success on a Labour Market				
Course type, sc Course type: I Recommended Per week: Per Course metho	ope and the me Practice d course-load (f r study period: d: present	thod: nours): 14s			
Number of crea	lits: 2				
Recommended	semester/trime	ster of the cours	e: 1., 3.		
Course level: II	•				
Prerequisities:					
Conditions for	course complet	ion:			
Learning outco	mes:				
Brief outline of	the course:				
Recommended	literature:				
Course languag	ge:				
Notes:					
Course assessment Total number of assessed students: 39					
А	В	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: RNDr. Peter Stefányi, PhD.					
Date of last mo	dification: 17.0	2.2014			
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J. Šafá	University: P. J. Šafárik University in Košice						
Faculty: Faculty of S	Faculty: Faculty of Science						
Course ID: ÚMV/ POT/10	JMV/ Course name: Polyhedral theory						
Course type, scope a Course type: Lectur Recommended cour Per week: 2 Per stu Course method: pre	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 credits: 4	۱ 						
Recommended seme	ster/trimester of the course: 2.						
Course level: II.							
Prerequisities:							
Conditions for cours Oral exam.	e completion:						
Learning outcomes: Mastered basic know	ledge from theory of convex polyhedra and polyhedral maps.						
Brief outline of the c Classification of surf Combinatorial and ge Graphs of polyhedra. Polyhedral maps. Eu Steinitz' theorem. Light subgraphs. Face- and vertex- vec Groups of symmetrie Applications in optim	ourse: aces. cometric properties of three-dimensional convex polyhedra. ler's theorem, etors. Eberhard's theorem. es of polyhedra. nization and chemistry.						
Recommended litera 1. B. Grunbaum: Cor 2. S. Jendrol': Light s 313(2013), 406-421. 3. E. Jucovič: Konve 4. G. Ringel, Map co 2. G.M. Ziegler: Lect	nture: nvex polytopes (2nd edition), Springer New York, 2003. nubgraphs of graphs embedded in the plane - a survey, Discrete Math. xné mnohosteny, Veda Bratislava 1981. lor theorem, Springer-Verlag 1974. tures on Polytopes, Springer-Verlag, New York, 1996						
Course language: Slovak							

Notes:

Course assessment Total number of assessed students: 12					
A B C D E FX					
83.33	0.0	0.0	16.67	0.0	0.0
Provides: prof. RNDr. Stanislav Jendrol', DrSc.					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J. Šafárik University in Košice							
Faculty: Faculty	of Science						
Course ID: ÚM PSTb/10	V/ Course	name: Probability	and statistics II				
Course type, sco Course type: L Recommended Per week: 2 / 2 Course methoo	ope and the m ecture / Practic course-load (Per study pe l: present	ethod: ce hours): riod: 28 / 28					
Number of cred	its: 5						
Recommended s	semester/trim	ester of the cours	e: 1.				
Course level: I.,	II.						
Prerequisities:							
Conditions for c To obtain in two tests and oral ex	owritten tests am.	tion: luring the semeste	r at least 50%. To	otal evaluation b	ased on written		
Learning outco To provide a gro	mes: ounding in stat	stical methods and	l their application	s for real life pro	oblems.		
Brief outline of Random vector Correlation and distributions and and their prop- construction.Tes searching optime	Brief outline of the course: Random vectors, their distributions and characteristics. Joint and marginal distributions. Correlation and regression, properties of correlation coefficient. Random sample, sampling distributions and characteristics. Some important statistics and their distributions. Point estimators and their properties. Maximum likelihood method. Interval estimates, confidence interval construction.Testing of statistical hypothesis, critical region, level of significance. Methods for searching optimal critical regions. Some important parametric and nonparametric tests						
 Recommended literature: 1. Skřivánková V.: Probability and statistics, UPJŠ, Košice, 2009. 2. Dekking at al.: A modern Introduction to Probability and Statistics. Springer, 2005. 3. Sincich T.: Statistics by example, Dellen Publishing Company, New Jersey, 1990. 							
Course language: Slovak							
Notes:							
Course assessment Total number of assessed students: 149							
А	В	C	D	Е	FX		
17.45	19.46	20.13	24.83	12.75	5.37		
Provides: doc. R	NDr. Valéria S	skřivánková, CSc.,	RNDr. Martina l	Hančová, PhD.			
Date of last mod	lification: 14.	02.2014					
Approved: prof.	RNDr. Stanis	av Jendrol', DrSc.					

University: P. J. Šafárik University in Košice						
Faculty: Faculty	y of Science					
Course ID: KPPaPZ/PPZMg	g/12 Course na	2 Course name: Psychology and Health Psychology (Mgr. study)				
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method: present						
Number of cred	lits: 4					
Recommended	semester/trimes	ster of the cours	e: 2.			
Course level: I.,	, II.					
Prerequisities:						
Conditions for	course completi	on:				
Learning outco	mes:					
Brief outline of	the course:					
Recommended	literature:					
Course languag	ge:					
Notes:						
Course assessment Total number of assessed students: 221						
А	В	С	D	Е	FX	
19.91	19.91 25.79 25.34 12.67 15.84 0.45					
Provides: PhDr. Anna Janovská, PhD., PhDr. Karolína Barinková, PhD., Mgr. Lucia Hricová						
Date of last mo	Date of last modification: 04.02.2014					
Approved: prof	Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚMV/ THO/10Course name: Queueing theory							
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present							
Number of credits: 6							
Recommended semester/trimester of the course: 1., 3.							
Course level: II.							
Prerequisities:							
Conditions for course completion: A student is evaluated according to an oral examination during which he/she answers two questions chosen by him/her at random, one from the group A (60 points at maximum) and one from the group B (40 points at maximum). Evaluation scale: A 90-100 p., B 80-89 p., C 70-79 p., D 60-69 p., E 50-59 p., FX 0-49 p.							
Learning outcomes: A student gets acquainted with analysis of input requests streams and with functioning of simple queuing systems.							
Brief outline of the course: Queuing system. Stationary, ordinary and Markov (memoryless) input requests stream. Basic types of input requests streams. Auxiliary lemmas. Properties of a memoryless input requests stream. Service analysis in a simple queuing system. Markoy's theorem							
Recommended literature: B.V. Gnedenko and I.N. Kovalenko, Introduction to Queueing Theory, Second Edition, Birkhauser Boston, Cambridge MA, 1989							
Course language: Slovak							
Notes:							
Course assessment Total number of assessed students: 41							
A B C D E FX							
19.51 21.95 7.32 17.07 21.95 12.2							
Provides: prof. RNDr. Mirko Horňák, CSc.							
Date of last modification: 14.02.2014							
Approved: prof. RNDr. Stanislav Jendrol', DrSc.							

University: P. J. Šafárik University in Košice									
Faculty: Faculty of Science									
Course ID: ÚGE/ EUG1/10	Course na	Course name: Regional geography of Europe							
Course type, scop Course type: Pra Recommended c Per week: 3 Per Course method:	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present								
Number of credit	s: 3								
Recommended se	mester/trimes	ter of the cours	e: 2.						
Course level: I., I	[
Prerequisities:									
Conditions for co test plus oral exam	urse completi nination	on:							
Learning outcom	es:								
Brief outline of the course: Pre-history of Europe, development of population, creation of the first state organisations. Development of political map of Europe from the Middle Ages and to present. National, linguistic and religious development of European population and its present distribution. Economy of different regions of Europe – Northern Europe, Southern Europe, Western Europe, postcommunist countries of Central Europe, and Russia.									
 BLOUET, B. W. 2008: The EU & Neighbours. A Geography of Europe in the Modern World. Wiley & Sons. De BLIJ, H.J., MULLER, P. O. 2008: The World Today. Concepts and Regions in Geography. 3rd edition. Wiley. ISBN 0-470-04681-3 GAJDOŠ, A., MAZÚREK, J. 2004: Geografia štátov Európskej únie. 1. časť, Banská Bystrica: Fakulta prírodných vied, 186 s. ISBN 80-8055-997-X GAJDOŠ, A., MAZÚREK, J. 2006: Geografia štátov Európskej únie a ostatných štátov Európy. 2. časť, Banská Bystrica: Fakulta prírodných vied, 159 s. ISBN 80-8083-284-6 SKOKAN, L. 2005: Rusko. Geografický přehled. Ústí nad Labem, 215 s ISBN 80-7044-647-1 VITURKA, M., ŘEHÁK, S., VANČURA, M. 2004: Regionální geografie Evropy a ČR, Brno: Masarykova univerzita v Brne. 126 s., ISBN 80-210-3504-8 									
Course language:									
Notes:									
Course assessmer Total number of a	nt ssessed studen	ts: 153							
Α	В	С	D	E	FX				
21.57	18.3	22.88	16.99	19.61	0.65				

Provides: RNDr. Stela Csachová, PhD.

Date of last modification: 11.02.2014

University: P. J. Šafá	University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚTVŠ/ ÚTVŠ/CM/13	: ÚTVŠ/ Course name: Seaside Aerobic Exercise				
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present				
Number of credits: 2					
Recommended seme	ster/trimester of the cours	e:			
Course level: I., 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: 7					
abs n					
57.14 42.86					
Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.					
Date of last modification: 15.01.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

COUDSE INFORMATION I ETTED

	COURSE INFORMATION LETTER					
University: P. J. Šafárik University in Košice						
Faculty: Faculty of S	Faculty: Faculty of Science					
Course ID: ÚMV/ SHM/10	Course name: Seminar on history of mathematics					
Course type, scope a Course type: Practic Recommended cou Per week: 2 Per stu Course method: pre	nd the method: ce rse-load (hours): idy period: 28 esent					
Number of credits: 2	2					
Recommended seme	ster/trimester of the course: 1.					
Course level: I., II.						
Prerequisities:						
Conditions for cours 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 -	e completion: tion on the chosen topic during the seminar. - evaluation of A. tion of B. C. tion of D. tion of E. FX evaluation.					
Learning outcomes: Students get an overv selected terms and ab	view of the history of the development of certain mathematical disciplines and pout parallel between phylogenesis and ontogenesis of mathematical thinking.					
Brief outline of the c Mathematics in Early (Arabia, China, India Beginning of Modern	ourse: y Civilizations. Greek Mathematics. Mathematics in the Near and Far East a). Medieval European Mathematics. The Renaissance of Mathematics. The n Mathematics.					
Recommended litera Burton, D. M.: The H Devlin, K.: Jazyk ma Kolman, A.: Dejiny I Juškevič, A. P.: Dejin	Iture: Iistory of Mathematics: An Introduction. McGraw–Hill, 2007. Itematiky. Dokořán, 2002 (in czech) natematiky ve starověku. Academia, Praha, 1968 (in slovak) ny 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: 111					
A B C D E FX					
80.18	5.41	9.01	2.7	2.7	0.0
Provides: RNDr. Ingrid Semanišinová, PhD.					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: KPPaPZ/SPVKE/07	Course name: Social-Psychological Training of Coping with Critical Life Situations				
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 credits: 2					
Recommended seme	ster/trimester of the course: 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 asse	ssed students: 101				
abs	n	Z			
97.03 2.97 0.0					
Provides:	1	· · · · · · · · · · · · · · · · · · ·			
Date of last modifica	tion: 04.02.2014				
Approved: prof. RNI	Dr. Stanislav Jendrol', DrSc.				

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science						
Course ID: ÚTVŠ/ TVa/11	Course na	Course name: Sports Activities I.				
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	nd the met ce rse-load (h dy period: esent	thod: ours): 28				
Number of credits: 2	2					
Recommended seme	ster/trimes	ster of the course: 1.				
Course level: I., I.II.,	II.					
Prerequisities:						
Conditions for cours	se completi	on:				
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	ature:					
Course language:						
Notes:						
Course assessment Total number of asse	ssed studen	ts: 7160				
abs		n	neabs			
88.42 7.82 3.76						
Provides: PaedDr. Im Ivan Matúš, PhD., Mg PhD., PaedDr. Milena Dávid Kaško	nrich Staško gr. Zuzana I 1 Švedová, 1	o, doc. PhDr. Ivan Šulc, CSc., doc Küchelová, Mgr. Peter Bakalár, Pl PhD., Mgr. Agata Horbacz, PhD.,	. Mgr. Rastislav Feč, PhD., Mgr. nD., doc. PaedDr. Ivan Uher, Mgr. Marek Valanský, Mgr.			
Date of last modifica	tion: 15.01	.2014				

University: P. J. Šafá	University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: ÚTVŠ/ TVb/11	Course na	Course name: Sports Activities II.			
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 credits: 2	2				
Recommended seme	ster/trimes	ster of the course: 2.			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	se completi	on:			
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ature:				
Course language:					
Notes:					
Course assessment Total number of asse	ssed studen	ts: 6364			
abs		n	neabs		
84.95 11.06 3.99					
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., Mgr. Peter Bakalár, PhD., PaedDr. Milena Švedová, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško					
Date of last modification: 15.01.2014					

University: P. J. Šafá	rik Univers	ity in Košice			
Faculty: Faculty of S	cience				
Course ID: ÚTVŠ/ TVc/11	Course ID: ÚTVŠ/ Course name: Sports Activities III. rVc/11				
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 credits: 2	2				
Recommended seme	ster/trimes	ster of the course: 3.			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completi	on:			
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	iture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed studen	ts: 4191			
abs		n	neabs		
89.91	89.91 4.72 5.37				
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško					
Date of last modification: 15.01.2014					

University: P. J. Šafá	rik Univers	ity in Košice			
Faculty: Faculty of S	cience				
Course ID: ÚTVŠ/ TVd/11	Course ID: ÚTVŠ/ Course name: Sports Activities IV.				
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 credits: 2	2				
Recommended seme	ster/trimes	ster of the course: 4.			
Course level: I., I.II.,	II.				
Prerequisities:					
Conditions for cours	e completi	on:			
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	iture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed studen	ts: 3363			
abs		n	neabs		
86.14	86.14 6.78 7.08				
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško					
Date of last modification: 15.01.2014					

University: P. J.	Šafárik Univers	ity in Košice				
Faculty: Faculty	Faculty: Faculty of Science					
Course ID: ÚFV SEV/10	rse ID: ÚFV/ Course name: Structure and Evolution of the Universe /10					
Course type, sco Course type: L Recommended Per week: 2 Pe Course 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 cred	its: 3					
Recommended s	semester/trimes	ster of the course	e: 2.			
Course level: I.,	II.					
Prerequisities:						
Conditions for c Test; seminar pa Oral exam with	course completi per. preparation; 3 q	on: uestions within th	e curriculum pr	esented during th	e course.	
Learning outcon Become acquain	nes: ted with basic k	nowledge about t	he structure and	evolution of the	universe.	
Brief outline of The stars, their b universe. Cosmo	the course: basic properties, blogical theories	structure and evo , formation, evolu	lution. Structure	e and distribution of the universe.	of matter in the	
 Recommended literature: 1. Carroll, B. W., Ostlie, D. A., An Introduction to Modern Astrophysics, Addison-Wesley Publishing Company, Reading, Massachusetts, 1996. 2. Contopoulos, D. Kotsakis, Cosmology, the structure and evolution of the Universe, Springer, 1984 3. Narlikar, J.V., An Introduction to Cosmology, Cambridge University Press, Cambridge, 2002 						
Course languag Slovak, English	e:					
Notes:						
Course assessment Total number of assessed students: 100						
А	В	С	D	Е	FX	
24.0	33.0	16.0	16.0	11.0	0.0	
Provides: doc. RNDr. Rudolf Gális, PhD.						
Date of last modification: 31.01.2014						
Approved: prof. RNDr. Stanislav Jendrol', DrSc.						

University: P	J. Šafár	rik Univers	ity in Košice			
Faculty: Facul	ty of So	cience				
Course ID: ÚN SVK/10	/IV/	Course na	me: Students sci	entific conferen	nce	
Course type, s Course type: Recommende Per week: Pe Course methe	cope and ed cour er stud od: pre	nd the met rse-load (h y period: sent	hod: ours):			
Number of cre	dits: 4					
Recommended	l semes	ster/trimes	ter of the cours	e:		
Course level: I	., II.					
Prerequisities:						
Conditions for	cours	e completi	on:			
Learning outco Individual scie public presenta	omes: ntific v tion.	vork of stu	dents. Publishing	of obtained res	sults in a written f	form and as a
Brief outline o	f the co	ourse:				
Recommended With respect to	l litera	ture: search prot	plematics (article	in journals, bo	oks).	
Course langua Slovak or Engl	ge: ish					
Notes:						
Course assess Total number of	Course assessment Total number of assessed students: 47					
А		В	С	D	E	FX
97.87		2.13	0.0	0.0	0.0	0.0
Provides:	•					•
Date of last me	odifica	tion: 14.02	2.2014			
Approved: pro	f. RNE	Dr. Stanisla	v Jendrol', DrSc.			

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of Science				
Course ID: ÚTVŠ/ LKSp//13	Course ID: ÚTVŠ/ Course name: Summer Course-Rafting of TISA River			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present				
Number of credits: 2				
Recommended seme	ster/trimester of the cours	e:		
Course level: I., 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: 63				
abs n				
41.27 58.73				
Provides: Mgr. Peter Bakalár, PhD.				
Date of last modification: 15.01.2014				
Approved: prof. RNI	Approved: prof. RNDr. Stanislav Jendrol', DrSc.			

University: P. J. Šafá	University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: ÚTVŠ/ KP/12	Course ID: ÚTVŠ/ Course name: Survival Course XP/12				
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present					
Number of credits: 2					
Recommended seme	ster/trimester of the cours	2:			
Course level: I., 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: 185					
	abs n				
41.62 58.38					
Provides: Mgr. Marek Valanský					
Date of last modification: 15.01.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J.	. Šafárik Univers	ity in Košice					
Faculty: Faculty	y of Science						
Course ID: KPPaPZ/UPR/0	ourse ID: Course name: The Art of Aiding by Verbal Exchange PPaPZ/UPR/03 PPaPZ/UPR/03						
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 crea	lits: 2						
Recommended	semester/trimes	ster of the cours	e: 4.				
Course level: II	-						
Prerequisities:							
Conditions for	course completi	on:					
Learning outco	mes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Notes:							
Course assessment Total number of assessed students: 47							
А	В	С	D	Е	FX		
87.23	87.23 4.26 2.13 2.13 0.0 4.26						
Provides: Mgr. Ondrej Kalina, PhD.							
Date of last modification: 04.02.2014							
Approved: prof. RNDr. Stanislav Jendrol', DrSc.							

	¥					
University: P. J.	University: P. J. Šafárik University in Košice					
Faculty: Faculty	Faculty: Faculty of Science					
Course ID: ÚM TKO/10	Course ID: ÚMV/ Course name: Theory of codes ГКО/10					
Course type, sc Course type: I Recommended Per week: 4 Po Course metho	Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present					
Number of crea	lits: 6					
Recommended	semester/trime	ster of the cours	e: 1., 3.			
Course level: II						
Prerequisities:						
Conditions for A student is eva chosen by him/l at maximum). H 50-59 p., FX	course complet luated according her at random, o Evaluation scale: 0-49 p.	ion: to an oral examine from the grou A 90-100 p.,	nation during wh p A and one from B 80-89 p., C	nich he/she answe n the group B (bo C 70-79 p., D .	rs two questions oth for 50 points 60-69 p., E	
Learning outco A student gets a of their applicat	mes: cquainted with b ion.	asic principles ar	nd theoretical bas	ses of text coding	and possibilities	
Brief outline of Monoids. Basic codes. Submon words. Test for sets in monoids	Brief outline of the course: Monoids. Basic notions of theory of codes. Examples of codes. Important classes of codes. Maximal codes. Submonoids generated by codes. Stable submonoids. Group codes. Free hull of a set of words. Test for recognising codes. Measure of a code. Bernoulli distribution. Dyck code. Complete sets in monoids. Thin codes. Composition of codes. Indecomposable codes.					
Recommended J. Berstel and D	literature: 9. Perrin, Theory	of Codes, Acade	emic Press, 1985			
Course languag Slovak	ge:					
Notes:	Notes:					
Course assessment Total number of assessed students: 41						
А	В	C	D	Е	FX	
21.95	12.2	12.2	19.51	21.95	12.2	
Provides: prof. RNDr. Mirko Horňák, CSc.						
Date of last modification: 14.02.2014						
Approved: prof	Approved: prof. RNDr. Stanislav Jendrol', DrSc.					
h						

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ UAL/10Course name: Universal algebra					
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 1., 3.					
Course level: II.					
Prerequisities:					
Conditions for course completion: According to results of the exam (written+oral).					
Learning outcomes: To obtain basic knowledge from universal algebra and to be able to apply it in concrete situations.					
Brief outline of the course: Algebraic structures. Homomorphisms and congruences. Direct and subdirect products. Terms. Free algebras. Birkhoff theorems about varieties.					
Recommended literature: S.Burris, H.P.Sankappanavar: A Course in Universal Algebra. Springer-Verlag, 1981. B. Jónsson: Topics in universal algebra, Springer-Verlag 1972. G. Grätzer: Universal Algebra, 2nd edition, Springer Verlag, 1979.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 30					
A B C D E FX					
30.0 26.67 23.33 6.67 6.67 6.67					
Provides: prof. RNDr. Danica Studenovská, CSc.					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚTVŠ/ ZKLS//13	Course name: Winter S	Ski Training Course			
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	nd the method: ce rse-load (hours): udy period: 504 esent				
Number of credits: 2					
Recommended seme	ster/trimester of the co	urse:			
Course level: I., 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	ssed students: 59				
	abs n				
25.42 74.58					
Provides: PaedDr. Im	rich Staško, doc. PhDr.	Ivan Šulc, CSc.			
Date of last modification: 15.01.2014					
Approved: prof. RNDr. Stanislav Jendrol', DrSc.					
COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: D PrávF/ZP2/11	Course name: Základy práva pre prirodovedcov II		
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present			
Number of credits: 4			
Recommended semester/trimester of the course:			
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: 95			
	abs	n	
	97.89	2.11	
Provides:			
Date of last modification: 14.01.2014			
Approved: prof. RNDr. Stanislav Jendrol', DrSc.			