University: P. J. Ša	fárik Univers	ity in Košice			
Faculty: Faculty of	Science				
<b>Course ID:</b> ÚMV/ rALGa/12	Course na	me: Algebra I			
Course type, scope Course type: Lect Recommended co Per week: Per stu Course method: p	ure urse-load (h 1dy period: 3	ours):			
Number of credits:	: 11				
Recommended sen	nester/trimes	ter of the course	<b>e:</b> 1.		
Course level: N					
Prerequisities:					
Conditions for cou	rse completi	on:			
Learning outcome	s:				
Brief outline of the	course:				
<b>Recommended lite</b>	rature:				
Course language:					
Notes:					
<b>Course assessment</b> Total number of ass		ts: 30			
А	В	С	D	Е	FX
6.67	6.67	16.67	20.0	30.0	20.0
Provides: prof. RN	Dr. Danica St	udenovská, CSc.		1	
Date of last modifi	cation: 03.05	.2015			
Approved: prof. RI	NDr. Jozef Do	oboš, CSc.			

University: P. J. Ša	fárik Universi	ty in Košice			
Faculty: Faculty of	Science			-	
<b>Course ID:</b> ÚMV/ rALGb/12	Course na	me: Algebra II			
Course type, scope Course type: Lect Recommended co Per week: Per st Course method: p	ture ourse-load (ho udy period: 24	ours):			
Number of credits	: 8				
Recommended sen	nester/trimest	ter of the cours	e: 2.		
Course level: N					
Prerequisities: ÚM	IV/rALGa/12				
Conditions for cou	rse completio	on:			
Learning outcome	s:				
Brief outline of the	e course:				
Recommended lite	erature:				
Course language:					
Notes:				-	
<b>Course assessment</b> Total number of as	-	s: 21			
A	В	С	D	E	FX
23.81	14.29	38.1	0.0	19.05	4.76
Provides: doc. RNI	Dr. Miroslav P	loščica, CSc.			
Date of last modifi	cation: 03.05.	2015			
Approved: prof. R	NDr. Jozef Do	boš, CSc.			

University: P. J. Šafa	árik University in Košice
Faculty: Faculty of S	Science
<b>Course ID:</b> ÚMV/ rAIM/12	<b>Course name:</b> Application of ICT into mathematics teaching
Course type, scope a Course type: Practa Recommended cou Per week: Per stud Course method: pr	ice irse-load (hours): dy period: 24s
Number of credits:	7
Recommended sem	ester/trimester of the course: 5.
Course level: N	
Prerequisities:	
Conditions for cour two tests elaborated	se completion: on the computer, solving problems from worksheets final project
and to provide examp teaching. To develop digital environment	ndard work procedures with the basic types of mathematical softvare systems ples and ideas on the possibility of using these software systems in mathematics of the knowledge and skills of students to use investigation and modelling in the for mathematical problems solving. Develop creative and evaluation abilities prepare mathematics lessons with effective and meaningful use of modern
Use of dynamic geo	course: numerical and graphical tools of spreadsheet to solve mathematical problems. metry systems in solving geometry problems, examples of their use in the constructivist approaches to mathematics teaching. Mathematical modelling

#### **Recommended literature:**

knowledge in mathematics teaching.

M. Černochová a kol.: Využití počítače při vyučování, Portál, 1998.

S. Lukáč: Multimédiá a počítačom podporované učenie sa v matematike, PF UPJŠ Košice 2001. J. Vaníček: Počítačové kognitivní technologie ve výuce geometrie. Univerzita Karlova v Praze, 2009.

and solving of problems in a CAS environment. The use of modern IT for active acquisition of

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

#### **Course language:**

Slovak

Notes:

Course assessm Total number of	nent f assessed studen	ts: 10				
А	В	С	D	Е	FX	
20.0	40.0	10.0	20.0	10.0	0.0	
Provides: doc. 1	RNDr. Stanislav	Lukáč, PhD.				
Date of last modification: 03.05.2015						
Approved: prof	f. RNDr. Jozef De	oboš, CSc.				

University DI Šafá	rik University in Košice
<b>Faculty:</b> Faculty of Se	
<b>Course ID:</b> ÚMV/ rDDMa/12	Course name: Didactics of mathematics I
Course type, scope as Course type: Lectur Recommended cour Per week: Per stud Course method: pre	e ·se-load (hours): y period: 24s
Number of credits: 6	
Recommended semes	ster/trimester of the course: 3.
Course level: N	
Prerequisities:	
<b>Conditions for cours</b> Seminar paper - 20% Continuous assessment Exam - 80%	of assessment
<b>Learning outcomes:</b> Master the basic princ	iples and methods of teaching mathematics in secondary and primary schools.
The objectives and tag Planning in mathemat Logical and didactic of Determining the learn Didactic principles, m Assessment of learnin Math problems, creat Assessment in mathem The content and scope Statements, statement Definitions, requirem Induction and deduct Mathematical sentence Proofs of mathematic	hathematics, the development of mathematics and mathematics education sks of teaching mathematics tics curriculum analysis hing objectives nethods and forms of teaching mathematics ng outcomes, creation of didactic tests ing systems tasks matics, educational tests e of the concept, sorting and classification of terms ts of operations ents definition ton, analogy ces al theorems
[2] L.Frantíková,K.H [3] R.Fischer,G.Malle	<b>ture:</b> eorie vyučovania matematiky, SPN Blava 1989, ončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 e: Človek a matematika, SPN Bratislava 1992 o solve it, Princeton University Press, 1957.
Course language:	
Notes:	

Course assessm Total number of	nent f assessed studen	ts: 19			
А	В	С	D	Е	FX
0.0	26.32	52.63	21.05	0.0	0.0
Provides: doc. 1	RNDr. Dušan Šve	eda, CSc.			
Date of last modification: 03.05.2015					
Approved: prof	f. RNDr. Jozef De	oboš, CSc.			

University: P. J.	Šafárik Univers	sity in Košice			
Faculty: Faculty	of Science				
<b>Course ID:</b> ÚM rDDMb/12	V/ Course na	ame: Didactics o	f mathematics II		
Course type, sco Course type: L Recommended Per week: Per Course methoo	ecture course-load (h study period: 2	ours):			
Number of cred	its: 8				
Recommended s	semester/trimes	ster of the cours	se: 4.		
Course level: N					
Prerequisities: <b>U</b>	ÚMV/rDDMa/12	2			
<b>Conditions for c</b> Seminar paper - Continuous asse Exam - 80%	20% of assessm				
Learning outcon Acquire knowle		ent ways of teach	ning particular su	bjects of mathem	atics education
Session, views a Geometry in the	concept of numb and functions in school mathem	ber in school mat school mathemar atics statistics in schoo	tics		
<ul><li>[2] L.Frantíková</li><li>[3] R.Fischer,G.</li><li>[4] Polya, G.: H</li></ul>	ol.: Teorie vyuč ,K.Hončarivová Malle: Človek a ow to solve it, P Luřina, F.: Dítě, s	á,O.Kopanev: Die n matematika, SP Princeton Univers	•	iky, UPJŠ 1982	vyučování.
<b>Course languag</b>	e:				
Notes:	,				
Course assessm Total number of		nts: 19			
А	В	С	D	Е	FX
5.26	15.79	36.84	21.05	21.05	0.0
Provides: doc. R	NDr. Dušan Šv	eda, CSc.		·	

Approved: prof. RNDr. Jozef Doboš, CSc.

		•					
Faculty: Faculty	of Science						
<b>Course ID:</b> ÚM rDSM/12	V/ Course r	/ Course name: Discrete mathematics					
Course type, sco Course type: L Recommended Per week: Per Course method	lecture   course-load ( <sup>.</sup> study period:	hours):					
Number of cred	lits: 8						
Recommended	semester/trim	ester of the cours	se: 1.				
Course level: N							
Prerequisities:							
Conditions for a Based on written	-	tion:					
<b>Learning outco</b> To provide a kno		ics of discrete mat	hematics and its a	applications in co	omputer science.		
Brief outline of			· 1 . 0 . 1	1 ( 1 )	, 1		
Mathematical in permutations, or Recurrence equ	nduction and combinations. aations. The in	pigeonhole prind Selections with atroduction to gra- ns. Planar graphs.	repetitions. The aph theory. Grap	inclusion/exclu bh searching alg	usion principle.		
Mathematical in permutations, or Recurrence equ Eulerian and han <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000.	nduction and combinations. ations. The in miltonian graph literature: Thók: Diskrétna atoušek: Kapito an: Mathemati	Selections with troduction to gra	repetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks	inclusion/exclu oh searching alg s. 2 s/Cole Publ. Com	usion principle. gorithms. Trees.		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: I	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intr	repetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks	inclusion/exclu oh searching alg s. 2 s/Cole Publ. Com	usion principle. gorithms. Trees.		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intr	repetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks	inclusion/exclu oh searching alg s. 2 s/Cole Publ. Com	usion principle. gorithms. Trees.		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994 <b>Course languag</b>	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intro- omputational Math	repetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks	inclusion/exclu oh searching alg s. 2 s/Cole Publ. Com	usion principle. gorithms. Trees.		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994 <b>Course languag</b> <b>Notes:</b> <b>Course assessm</b>	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intro- omputational Math	repetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks	inclusion/exclu oh searching alg s. 2 s/Cole Publ. Com	usion principle. gorithms. Trees.		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994 <b>Course languag</b> <b>Notes:</b> <b>Course assessm</b> Total number of	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co ge: ent `assessed stude	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intro- omputational Math	repetitions. The aph theory. Grap Graph colouring: JPJŠ Košice 1992 tematiky roduction, Brooks nematics, Addison	<ul> <li>inclusion/excluph searching alg</li> <li>s.</li> <li>c.</li> <li>c.<!--</td--><td>usion principle. gorithms. Trees. np. Pacific CoRending</td></li></ul>	usion principle. gorithms. Trees. np. Pacific CoRending		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994 <b>Course languag</b> <b>Notes:</b> <b>Course assessm</b> Total number of A	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co ge: ent `assessed stude B 0.0	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intro- omputational Math ents: 28 C 7.14	Piepetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks nematics, Addison	E inclusion/exclu bh searching alg s. c/Cole Publ. Com n-Wesley Publ. C	usion principle. gorithms. Trees. np. Pacific CoRending		
Mathematical in permutations, or Recurrence equi Eulerian and har <b>Recommended</b> S. Jendrol', P. M J. Nešetřil, J. Ma E. R. Scheinerm Grove 2000. R.P. Grimaldi: E 1994 <b>Course languag</b> <b>Notes:</b> <b>Course assessm</b> Total number of A 0.0	nduction and combinations. ations. The in miltonian graph literature: ihók: Diskrétna atoušek: Kapito an: Mathemati Discrete and Co ge: ent Sassessed stude B 0.0 RNDr. Jaroslav	Selections with atroduction to gra- ns. Planar graphs. a matematika I., U oly z diskrétni ma cs - a discrete intro- omputational Math ents: 28 C 7.14 Ivančo, CSc.	Piepetitions. The aph theory. Grap Graph colourings JPJŠ Košice 1992 tematiky roduction, Brooks nematics, Addison	E inclusion/exclu bh searching alg s. c/Cole Publ. Com n-Wesley Publ. C	usion principle. gorithms. Trees. np. Pacific CoRending		

University: P. J. Ša	fárik Universi	ity in Košice			
Faculty: Faculty of	Science				
<b>Course ID:</b> ÚMV/ rGEOa/12	Course na	me: Geometry I			
Course type, scope Course type: Lect Recommended co Per week: Per str Course method: p	ture ourse-load (ho udy period: 2	ours):			
Number of credits	: 8				
Recommended sen	nester/trimes	ter of the cours	<b>e:</b> 2.		
Course level: N					
Prerequisities:					
Conditions for cou	rse completio	on:			
Learning outcome	s:				
Brief outline of the	e course:				
Recommended lite	erature:				
Course language:					
Notes:					
<b>Course assessment</b> Total number of as		ts: 20			
A	В	С	D	Е	FX
0.0	0.0	35.0	20.0	45.0	0.0
Provides: doc. RNI	Dr. Jaroslav Iv	vančo, CSc.	1		
Date of last modifi	cation: 03.05	.2015			
Approved: prof. R	NDr. Jozef Do	boš, CSc.			

University: P. J. Šaf	árik Universi	ity in Košice			
Faculty: Faculty of	Science				
<b>Course ID:</b> ÚMV/ rGEOb/12	Course na	me: Geometry I	I		
Course type, scope Course type: Lect Recommended co Per week: Per stu Course method: p	ure urse-load (he idy period: 2	ours):			
Number of credits:	8				
Recommended sem	ester/trimes	ter of the cours	<b>e:</b> 3.		
Course level: N					
Prerequisities: ÚM	V/rGEOa/12				
Conditions for cou	rse completi	on:			
Learning outcomes	:				
Brief outline of the	course:				
Recommended lite	rature:				
Course language:					
Notes:					
Course assessment Total number of ass	essed student	ts: 20			
A	В	С	D	Е	FX
5.0	0.0	10.0	35.0	45.0	5.0
Provides: RNDr. Ig	or Fabrici, Di	r. rer. nat.		·	
Date of last modifie	cation: 03.05	.2015			
Approved: prof. RN	NDr. Jozef Do	boš, CSc.			

University: P. J. Ša	ıfárik Universi	ty in Košice			
Faculty: Faculty of	f Science			-	
<b>Course ID:</b> ÚMV/ rLTM/12	Course na	me: Logic and s	et theory		
Course type, scope Course type: Lec Recommended co Per week: Per st Course method: 1	ture ourse-load (ho udy period: 2	ours):			
Number of credits	: 8				
Recommended ser	nester/trimes	ter of the cours	<b>e:</b> 3.		
<b>Course level:</b> N					
Prerequisities:					
Conditions for cou	irse completio	on:			
Learning outcome	s:				
Brief outline of the	e course:			_	
Recommended lite	erature:				
Course language:					
Notes:					
<b>Course assessmen</b> Total number of as		s: 20			
A	В	С	D	Е	FX
0.0	20.0	15.0	15.0	50.0	0.0
Provides: doc. RN	Dr. Jaroslav Iv	vančo, CSc.			
Date of last modifi	ication: 03.05	.2015			
Approved: prof. R	NDr. Jozef Do	boš, CSc.			

Course type, scope and the method: Course type; Lecture Recommended course-load (hours): Per week: Per study period: 36s Course method: present Number of credits: 11 Recommended semester/trimester of the course: 1. Course level: N Prerequisities: Conditions for course completion: Written exam. Learning outcomes: The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field. Brief outline of the course: 1. Basics of mathematical logic and notations. 2. Sets of real numbers - axioms of real numbers, properties of subsets of reals. 3. Real functions - basic properties (monotone, bounded, even/odd, inverse. 4. Infinite sequences - operations, boundedness, monotonicity, convergence. 5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions. Recommended literature: 1. Branan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006. 2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008. 3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002. Course language:	University: P. J. Ša	afárik Universi	ity in Košice				
MANa/12         Course type, scope and the method:         Course type: Lecture         Recommended course-load (hours):         Per week: Per study period: 36s         Course method: present         Number of credits: 11         Recommended semester/trimester of the course: 1.         Course level: N         Prerequisities:         Conditions for course completion:         Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions or real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis, com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.	Faculty: Faculty o	f Science					
Course type: Lecture         Recommended course-load (hours):         Per week: Per study period: 36s         Course method: present         Number of credits: 11         Recommended semester/trimester of the course: 1.         Course level: N         Prerequisities:         Controm course completion:         Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course assessment         Total number of assessed students: 26	<b>Course ID:</b> ÚMV/ rMANa/12	Course na	me: Mathemati	cal analysis I			
Recommended semester/trimester of the course: 1.         Course level: N         Prerequisities:         Conditions for course completion:         Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Branan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         Returned analysis. Com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26 <td colspan<="" td=""><th>Course type: Lec Recommended co Per week: Per st</th><td>ture ourse-load (ho ady period: 3</td><td>ours):</td><td></td><td></td><td></td></td>	<th>Course type: Lec Recommended co Per week: Per st</th> <td>ture ourse-load (ho ady period: 3</td> <td>ours):</td> <td></td> <td></td> <td></td>	Course type: Lec Recommended co Per week: Per st	ture ourse-load (ho ady period: 3	ours):			
Course level: N         Prerequisities:         Conditions for course completion:         Written exam.	Number of credits	<b>:</b> 11					
Prerequisities:         Conditions for course completion:         Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26         A       B       C       D       <	Recommended set	mester/trimes	ter of the cours	se: 1.	-		
Conditions for course completion:         Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26         A       B       C       D       E       FX         0.0       7.69       19.23       23.08       30.77       19.23	Course level: N						
Written exam.         Learning outcomes:         The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions.         Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26         A       B       C       D       E       FX         0.0       7.69       19.23       23.08       30.77       19.23	Prerequisities:						
The course provides an introductory knowledge about real numbers, sequences and functions of real variable, and a development of certain calculation skills in the field.         Brief outline of the course:         1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions. <b>Recommended literature:</b> 1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26         A       B       C         D       E       FX         0.0       7.69       19.23       23.08       30.77       19.23	<b>Conditions for con</b> Written exam.	urse completio	on:				
1. Basics of mathematical logic and notations.         2. Sets of real numbers - axioms of real numbers, properties of subsets of reals.         3. Real functions - basic properties (monotone, bounded, even/odd, inverse.         4. Infinite sequences - operations, boundedness, monotonicity, convergence.         5. Limit and continuity of real functions, properties of continuous functions on the interva elementary functions. <b>Recommended literature:</b> 1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002. <b>Course language: Notes: A</b> B C D E FX         0.0       7.69       19.23       23.08       30.77       19.23	The course provid	es an introduc			· •	and functions of	
Recommended literature:         1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.         2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.         3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.         Course language:         Notes:         Course assessment         Total number of assessed students: 26         A       B       C       D       E       FX         0.0       7.69       19.23       23.08       30.77       19.23	<ol> <li>2. Sets of real num</li> <li>3. Real functions -</li> <li>4. Infinite sequence</li> <li>5. Limit and control</li> </ol>	bers - axioms basic properti es - operations tinuity of real	of real numbers es (monotone, b s, boundedness,	oounded, even/od monotonicity, co	d, inverse. nvergence.	on the interval	
Notes:         Course assessment           Total number of assessed students: 26         D         E         FX           0.0         7.69         19.23         23.08         30.77         19.23	Recommended lite 1. Brannan, D.: A Cambridge 2006. 2. Bruckner, A. M ClassicalRealAnal	e <b>rature:</b> First Course ir ., Bruckner J. 1 ysis.com, 2008	B., Thomson, B 8.	. S.: Real Analys	is, Second Editio		
Course assessmentTotal number of assessed students: 26ABCDEFX0.07.6919.2323.0830.7719.23	Course language:						
Total number of assessed students: 26         A       B       C       D       E       FX         0.0       7.69       19.23       23.08       30.77       19.23	Notes:						
0.0 7.69 19.23 23.08 30.77 19.23			ts: 26				
	A	В	С	D	E	FX	
Provides: doc. RNDr. Dušan Šveda, CSc.	0.0	7.69	19.23	23.08	30.77	19.23	
·	Provides: doc. RN	Dr. Dušan Šve	eda CSc				

Approved: prof. RNDr. Jozef Doboš, CSc.

University: P. J. Šafa	árik Universi	ty in Košice			
Faculty: Faculty of S	Science				
<b>Course ID:</b> ÚMV/ rMANb/12	Course na	me: Mathemati	cal analysis II		
Course type, scope a Course type: Lectu Recommended cou Per week: Per stud Course method: pr	re Irse-load (ho dy period: 3	ours):			
Number of credits:	11				
Recommended sem	ester/trimes	ter of the cours	se: 2.		
Course level: N					
Prerequisities: ÚMV	//rMANa/12				
<b>Conditions for cour</b> Written exam.	se completio	)n:			
<b>Learning outcomes</b> To obtain basic know		ferential and int	egral calculus of	functions of one	real variable.
<ol> <li>Derivative, differed</li> <li>Calculus of derivative</li> <li>L'Hospital's rules,</li> <li>Primitive function</li> <li>Basic methods of</li> <li>Rieman's definite</li> </ol>	tives and its Taylor's pol , indefinite i computing in	usage for funct ynomial. ntegral. ndefinite integra	ions behavior. Ils.		
Recommended liter 1. Brannan, D.: A Fi Cambridge 2006. 2. Bruckner, A. M., ClassicalRealAnalys 3. Zorich, V. A.: Ma	rst Course in Bruckner J. I sis.com, 2008	B., Thomson, B	S.: Real Analys	is, Second Edition	
Course language:					
Notes:					
<b>Course assessment</b> Total number of asse	essed student	s: 20			
А	В	С	D	Е	FX
5.0	15.0	10.0	15.0	55.0	0.0
Provides: RNDr. Ing	rid Semaniš	inová, PhD.			
Date of last modific	ation: 03.05	.2015			
Approved: prof. RN		1 × 22			

University: P. J.	Šafárik Univers	sity in Košice			
Faculty: Faculty	of Science				
<b>Course ID:</b> ÚM rMRUa/12	V/ Course n	ame: Mathematio	cal problem solvi	ing strategies I	
	Practice I course-load (h • study period:	nours):			
Number of cred	lits: 3				
Recommended	semester/trime	ster of the cours	e: 2.		
Course level: N					
Prerequisities:					
Conditions for of continuous asse	-				
mathematics tea Brief outline of Basic knowledg	the course: the course: e of school mat ompetitions for t	y and secondary s hematics, various he topics Equation	school.	blem solving, the specifies and their syste	problems from
[2] Kopka, J., H Labem 1999.	kol., Teória vyu rozny problémů	čovania matemat i ve školské mate natematiky ZŠ a S	matice, Univerzi	islava 1989. ta J. E. Purkyně, <sup>*</sup>	Ústí nad
<b>Course languag</b> Slovak	je:				
Notes:					
Course assessm Total number of		nts: 21			
А	В	C	D	E	FX
19.05	19.05	28.57	9.52	23.81	0.0
Provides: doc. F	RNDr. Stanislav	Lukáč, PhD.			
Date of last mo	dification: 03.0	5.2015			

University: P. J. Ša	fárik Univers	ity in Košice			
Faculty: Faculty of	Science				
<b>Course ID:</b> ÚMV/ rMRUb/12	Course na	me: Mathematic	cal problem solvi	ng strategies II	
Course type, scope Course type: Prace Recommended co Per week: Per st Course method: p	ctice ourse-load (he udy period: 1	ours):			
Number of credits	: 3				
Recommended ser	nester/trimes	ter of the cours	<b>e:</b> 4.		
Course level: N					
Prerequisities:					
Conditions for cou	irse completi	on:			
Learning outcome	s:				
Brief outline of the	e course:				
Recommended lite	erature:				
Course language:					
Notes:	,				
<b>Course assessmen</b> Total number of as	-	ts: 19			
A	В	С	D	Е	FX
47.37	10.53	15.79	15.79	10.53	0.0
Provides: RNDr. In	ngrid Semaniš	inová, PhD.		· ·	
Date of last modifi	cation: 03.05	.2015			
Approved: prof. R	NDr. Jozef Do	oboš, CSc.			

University: P. J. Ša	afárik Univers	ity in Košice			
Faculty: Faculty of	f Science				
<b>Course ID:</b> ÚMV/ rMRUc/12	Course na	me: Mathematic	al problem solvi	ng strategies III	
Course type, scop Course type: Pra- Recommended co Per week: Per st Course method:	ctice ourse-load (h audy period: 1	ours):			
Number of credits	: 3				
Recommended ser	mester/trimes	ter of the cours	e: 5.		
<b>Course level:</b> N					
Prerequisities:					
Conditions for cou	urse completi	on:			
Learning outcome	es:				
Brief outline of th	e course:				
Recommended lite	erature:				
Course language:					
Notes:					
<b>Course assessmen</b> Total number of as		ts: 10			
А	В	С	D	Е	FX
10.0	30.0	10.0	50.0	0.0	0.0
Provides: doc. RN	Dr. Matúš Ha	rminc, CSc.			3
Date of last modif	ication:				
Approved: prof. R	NDr. Jozef Do	oboš, CSc.			

University: P. J. Š	afárik Universi	ity in Košice			
Faculty: Faculty of	of Science				
<b>Course ID:</b> ÚMV/ rMDM/12	Course na	me: Mathematic	es and didactics	of mathematics	
Course type, scop Course type: Recommended c Per week: Per s Course method:	ourse-load (ho tudy period:				
Number of credit	s: 0				
Recommended se	mester/trimes	ter of the cours	e:		
Course level: N					
<b>Prerequisities:</b> ÚN rDDMb/12	MV/rMANb/12	2 and ÚMV/rGE	Ob/12 and ÚMV	//rALGb/12 and U	ÚMV/
Conditions for co	urse completio	on:			
Learning outcom	es:				
Brief outline of th	e course:				
Recommended lit	erature:				
Course language:					
Notes:					
<b>Course assessmen</b> Total number of a		ts: 50			
A	В	С	D	E	FX
10.0	16.0	34.0	32.0	8.0	0.0
Provides:	I			,	
Date of last modif	fication: 03.05	.2015			
Approved: prof. F	RNDr. Jozef Do	boš, CSc.			

University: P. J. Ša	fárik Universit	y in Košice			
Faculty: Faculty of	f Science				
<b>Course ID:</b> ÚMV/ rTCS/12	Course nar	ne: Number the	eory		
Course type, scope Course type: Lec Recommended co Per week: Per st Course method: p	ture ourse-load (ho udy period: 24	urs):			
Number of credits	: 8				
Recommended ser	nester/trimest	er of the cours	<b>e:</b> 3.		
<b>Course level:</b> N					
Prerequisities:					
Conditions for cou	irse completio	n:			
Learning outcome	s:				
Brief outline of the	e course:				
Recommended lite	erature:				
Course language:					
Notes:					
<b>Course assessmen</b> Total number of as	-	:: 0			
A	В	С	D	Е	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RN	Dr. Matúš Harr	ninc, CSc.	1	3	
Date of last modifi	ication: 03.05.2	2015			
Approved: prof. R	NDr. Jozef Dol	ooš, CSc.			

University: P. J. Ša	afárik Univers	ity in Košice			
Faculty: Faculty o	f Science				
<b>Course ID:</b> ÚMV/ rPST/12	Course na	me: Probability	and statistics		
Course type, scop Course type: Lec Recommended co Per week: Per st Course method:	eture ourse-load (he cudy period: 3	ours):			
Number of credits	s: 11				
Recommended ser	mester/trimes	ter of the cours	<b>e:</b> 4.		
<b>Course level:</b> N					
Prerequisities: ÚN	/IV/rMANb/12	2			
Conditions for co	urse completi	on:			
Learning outcome	es:				
Brief outline of th	e course:				
Recommended lit	erature:				
Course language:					
Notes:					
<b>Course assessmen</b> Total number of as		ts: 19			
А	В	С	D	Е	FX
10.53	10.53	31.58	26.32	21.05	0.0
Provides: RNDr. I	Daniel Klein, P	hD.	1	·	
Date of last modif	ication: 03.05	.2015			
Approved: prof. R	NDr. Jozef Do	boš, CSc.			

University: P. J. Ša	fárik Univers	ity in Košice			
Faculty: Faculty of	Science				
<b>Course ID:</b> ÚMV/ rVKG/12	Course na	me: Selected top	oics on geometry	7	
Course type, scope Course type: Lect Recommended co Per week: Per stu Course method: p	ure urse-load (h ıdy period: 2	ours):			
Number of credits:	8				
Recommended sem	nester/trimes	ster of the cours	e: 4.		
Course level: N					
Prerequisities:					
Conditions for cou	rse completi	on:			
Learning outcomes	5:				
Brief outline of the	course:				
Recommended lite	rature:				
Course language:					
Notes:					
<b>Course assessment</b> Total number of ass		ts: 19			
A	В	С	D	Е	FX
10.53	26.32	36.84	5.26	21.05	0.0
Provides: RNDr. Ig	or Fabrici, D	r. rer. nat.		·1	
Date of last modified	cation: 03.05	5.2015			
Approved: prof. RN	NDr. Jozef Do	oboš, CSc.			

	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
<b>Course ID:</b> ÚMV/ rVMA/12	Course name: Selected topics on mathematical analysis
Course type, scope a Course type: Lectur Recommended cour Per week: Per stud Course method: pre	re rse-load (hours): ly period: 24s
Number of credits: 8	; 
Recommended seme	ster/trimester of the course: 4.
Course level: N	
Prerequisities:	
<b>Conditions for cours</b> The final test from w	e completion: hich it is necessary to obtain at least 40% of the total score.
-	the knowledge gained in the basic course of mathematical analysis of as of series and the theory of ordinary differential equations.
2. Ordinary different homogeneous, linear	ourse: for convergence, absolute and relative convergence, operation with series. ntial equations - basic concepts, the first order equations (separable, , Bernoulli), linear homogeneneous and nonhomogeneous equations of the ith constant coefficients).
<ol> <li>Z. Došlá, R. Plch, Masarykova univerzi</li> <li>J. Eliaš, J. Horváth Slovak).</li> <li>D. Brannan: A Firs Cambridge, 2006.</li> <li>J. C. Robinson: Ar Press, Cambridge, 20</li> <li>A. Banner: The call</li> </ol>	<ul> <li>šík, M. Švec: Matematika I, II, SVTL, Bratislava, 1959 (in Slovak).</li> <li>P. Sojka: Nekonečné rady s programem Maple, vysokoškolský učebný text, ta v Brne, Brno, 2002. (in Czech).</li> <li>J. Kajan: Zbierka úloh z vyššej matematiky 3, 4, Alfa, Bratislava, 1971 (in st Course in Mathematical Analysis, Cambridge University Press, in introduction to ordinary differential equations, Cambridge University 04.</li> <li>Iculus lifesaver, Princeton university press, Princeton, 2007.</li> <li>A. Alfa and their applications, Dover</li> </ul>
<b>Course language:</b> slovak	
Notes:	

Course assessm Total number of	nent f assessed studen	ts: 0			
А	В	С	D	Е	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides: RND	r. Ivan Mojsej, P	hD.			
Date of last mo	dification: 03.05	5.2015			
Approved: prof	f. RNDr. Jozef Do	oboš, CSc.			

University: P. J. Ša	afárik Univers	ity in Košice			
Faculty: Faculty of	f Science				
<b>Course ID:</b> ÚMV/ rSDM/12	Course na	me: Seminar on	didactics of mat	hematics	
Course type, scope Course type: Prace Recommended co Per week: Per st Course method: p	ctice ourse-load (h audy period: 1	ours):			
Number of credits	: 4				
Recommended ser	mester/trimes	ter of the cours	<b>e:</b> 5.		
Course level: N					
Prerequisities:					
Conditions for cou	urse completi	on:			
Learning outcome	es:				
Brief outline of the	e course:				
Recommended lite	erature:				
Course language:					
Notes:				-	
<b>Course assessmen</b> Total number of as	-	ts: 10			
A	В	С	D	Е	FX
20.0	20.0	0.0	50.0	10.0	0.0
Provides: RNDr. In	ngrid Semaniš	inová, PhD.	1		
Date of last modif	ication:				
Approved: prof. R	NDr. Jozef Do	oboš, CSc.			

Faculty: Faculty		sity in Košice			
racuny. raculty	of Science				
Course ID: ÚMV rSMO/13	V/ Course n	ame: Seminar to	mathematical ol	ympiad	
Course type, sco Course type: Pr Recommended Per week: Per Course method	ractice course-load (h study period:	nours):			
Number of credi	its: 8				
Recommended s	emester/trime	ster of the cours	<b>e:</b> 3.		
Course level: N					
Prerequisities:					
<b>Conditions for c</b> On the basis of c	-				
-	solving proble	ms from mathem	• •	and mathematic	al competitions
Brief outline of t	the course: matical compe	group of talented etitions for high games.		ora, combinatorio	cs, inequalities
Brief outline of t Tasks of mathe geometry, numbe Recommended la Brožúry z edície Séria brožúr: XY	the course: matical compe er theory. Math iterature: Škola mladých Z ročník matem	etitions for high	school - alget	ora, combinatorio	cs, inequalities
Brief outline of t Tasks of mathe geometry, numbe Recommended la Brožúry z edície	the course: matical compe er theory. Math iterature: Škola mladých Z ročník matem	etitions for high games.	school - alget	ora, combinatorio	cs, inequalities
Brief outline of t Tasks of mathe geometry, numbe Recommended la Brožúry z edície Séria brožúr: XY Course language	the course: matical competent er theory. Math iterature: Škola mladých Z ročník matem e:	etitions for high games. n matematikov. (in natickej olympiád	school - alget	ora, combinatorio	cs, inequalities
Brief outline of t Tasks of mathe geometry, numbe Recommended li Brožúry z edície Séria brožúr: XY Course language Notes: Course assessme	the course: matical competent er theory. Math iterature: Škola mladých Z ročník matem e:	etitions for high games. n matematikov. (in natickej olympiád	school - alget	E	rs, inequalities
Brief outline of t Tasks of mathe geometry, numbe Recommended li Brožúry z edície Séria brožúr: XY Course language Notes: Course assessme Total number of	the course: matical competent er theory. Math iterature: Škola mladých Z ročník matem e: ent assessed studer	etitions for high games. n matematikov. (in natickej olympiád	school - alget n slovak) y.(in slovak)		
Brief outline of t Tasks of mathe geometry, numbe Recommended li Brožúry z edície Séria brožúr: XY Course language Notes: Course assessme Total number of A 72.53	the course: matical competent er theory. Math iterature: Škola mladých Z ročník matem e: ent assessed studer B 8.79	etitions for high games. n matematikov. (in natickej olympiád nts: 91 C 10.99	school - alget n slovak) y.(in slovak) D	E	FX
Brief outline of t Tasks of mathe geometry, numbe Recommended li Brožúry z edície Séria brožúr: XY Course language Notes: Course assessme Total number of A	the course: matical competent er theory. Math iterature: Škola mladých Z ročník matem e: ent assessed studer B 8.79 Ingrid Semani	etitions for high games. n matematikov. (in natickej olympiád nts: 91 C 10.99 šinová, PhD.	school - alget n slovak) y.(in slovak) D	E	FX

University: P. J. Šafa	árik University in Košice					
Faculty: Faculty of S	Science					
<b>Course ID:</b> ÚMV/ rPDP/12	Course name: Teaching practice					
Course type, scope a Course type: Pract Recommended cou Per week: Per stue Course method: pr	ice irse-load (hours): dy period: 20s					
Number of credits:	6					
Recommended sem	ester/trimester of the cours	e: 5.				
Course level: N						
Prerequisities:						
Conditions for cour	se completion:					
Learning outcomes	:					
Brief outline of the	course:					
Recommended liter	ature:					
Course language:						
Notes:						
<b>Course assessment</b> Total number of asse	essed students: 10					
	abs	n				
	100.0 0.0					
Provides: doc. RND	r. Dušan Šveda, CSc., RNDr	Ingrid Semanišinová, PhD.				
Date of last modific	ation:					
Approved: prof. RN	Dr. Jozef Doboš, CSc.					

University: P. J. Šafa	árik University in Košice					
Faculty: Faculty of S	Science					
<b>Course ID:</b> ÚMV/ rZPM/12	Course name: Thesis					
Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr	urse-load (hours): dy period: resent					
Number of credits:						
	ester/trimester of the co	urse: 5.				
Course level: N						
Prerequisities:	_					
Conditions for cour	se completion:					
Learning outcomes	:					
Brief outline of the	course:					
<b>Recommended liter</b>	ature:					
Course language:						
Notes:						
<b>Course assessment</b> Total number of asse	essed students: 9					
	abs	n				
	100.0 0.0					
Provides:	_	1				
Date of last modific	ation:					
Approved: prof. RN	Dr. Jozef Doboš, CSc.					

University: P. J. Š	afárik Univers	ity in Košice							
Faculty: Faculty of	of Science								
<b>Course ID:</b> ÚMV/ rOZP/12	/ Course na	Course name: Thesis defence							
Course type, scop Course type: Recommended c Per week: Per s Course method:	course-load (he tudy period:								
Number of credit	s: 0								
Recommended se	mester/trimes	ter of the cours	e:						
Course level: N									
Prerequisities:									
Conditions for co	urse completi	o <b>n:</b>							
Learning outcom	es:								
Brief outline of th	e course:								
Recommended lit	terature:								
<b>Course language:</b>									
Notes:									
<b>Course assessmen</b> Total number of a	-	ts: 9							
A	В	С	D	Е	FX				
0.0	33.33	44.44	11.11	11.11	0.0				
Provides:				·					
Date of last modif	fication:								
Approved: prof. R	RNDr. Jozef Do	boš, CSc.							