

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dALG/10	<b>Course name:</b> Algebra
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> passing the exam	
<b>Learning outcomes:</b> The students will gain a deeper knowledge about the most important algebraic structures (group, ring, field, Boolean algebra) and their applications in various disciplines of mathematics as well as outside mathematics.	
<b>Brief outline of the course:</b> Groups, rings, fields of algebraic numbers, Galois groups, Boolean algebras and lattices.	
<b>Recommended literature:</b> 1. G. Birkhoff, S. MacLane : Prehľad modernej algebry, Alfa, Bratislava 1979. 2. J. J. Rotman: Advanced Modern Algebra, Amer. Math. Soc., 2010.	
<b>Course language:</b> Slovak or English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 15	
N	P
0.0	100.0
<b>Provides:</b> doc. RNDr. Miroslav Ploščica, CSc., prof. RNDr. Danica Studenovská, CSc.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dCMG/12	<b>Course name:</b> Citation in a monograph
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dCZC/12	<b>Course name:</b> Citation in an international scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dCDC/12	<b>Course name:</b> Citation in a Slovak scientific journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPOV/12	<b>Course name:</b> Conference organising committee membership
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 3	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dSVP/14	<b>Course name:</b> Co-researcher of an APVV or VEGA project
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 8	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 11.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dSVG/12	<b>Course name:</b> Co-researcher of an internal grant
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 42	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dSMP/14	<b>Course name:</b> Co-researcher of an international project
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 3	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 27.03.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dDSM/10	<b>Course name:</b> Discrete mathematics
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 1 <b>Per study period:</b> 42 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Oral exam	
<b>Learning outcomes:</b> Mastered basic methods and principles of discrete mathematics.	
<b>Brief outline of the course:</b> Combinatorial counting. Basic combinatorial principles and methods. Proofs in discrete mathematics. Discrete probability. An introduction to the theory of graphs. Basic cryptography	
<b>Recommended literature:</b> 1. J. Matoušek, J. Nešetřil: Invitation to Discrete Mathematics, Univerzita Karlova - Nakladatelství Karolinum, Praha 2000. 2. E. Scheinerman: Mathematics - a Discrete Introduction. Brooks/Cole, Pacific Grove, USA, 2002.	
<b>Course language:</b> Slovak or English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 10	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Stanislav Jendrol', DrSc.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> CJP/AJD1/07		<b>Course name:</b> English Language for PhD Students 1			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> III.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 374					
N	Ne	P	Pr	abs	neabs
0.0	0.0	75.4	0.0	24.6	0.0
<b>Provides:</b> PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.					
<b>Date of last modification:</b> 06.02.2014					
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> CJP/AJD2/07		<b>Course name:</b> English Language for PhD Students 2			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> III.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 375					
N	Ne	P	Pr	abs	neabs
0.0	0.0	88.8	2.13	9.07	0.0
<b>Provides:</b> PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.					
<b>Date of last modification:</b> 06.02.2014					
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dISLa/14	<b>Course name:</b> Individual study of scientific literature I
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 12	
<b>Recommended semester/trimester of the course:</b> 1., 2..	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> Slovak and English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 3	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dISLb/14	<b>Course name:</b> Individual study of scientific literature II
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 12	
<b>Recommended semester/trimester of the course:</b> 3., 4..	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> Slovak and English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dMAN/10	<b>Course name:</b> Mathematical analysis
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> exam	
<b>Learning outcomes:</b> Understanding of the basic rigorous ideas of Mathematical Analysis.	
<b>Brief outline of the course:</b> Rings sigma-rings. Measure. Outer measure. Lebesgue measure. Measurable sets. Measurable functions. Lebesgue integral. Lebesgue integral versus Riemann integral. Calculations of Lebesgue integrals. Applications.	
<b>Recommended literature:</b> A. M. Bruckner, J. B. Bruckner, B. S. Thomson: Real Analysis, Prentice Hall, 1997. T. Neubrunn, B. Riečan: Miera a integrál, Veda, Bratislava, 1981. B. Riečan, T. Neubrunn: Teória miery, Veda, Bratislava, 1992. Т. А. Леонтьева, В. С. Панферов, В. С. Серов: Задачи по теории функций действительного переменного, Издательство Московского университета, Москва, 1997.	
<b>Course language:</b> Slovak or English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 2	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Jozef Doboš, CSc.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dMRU/10	<b>Course name:</b> Methods for solving mathematical problems
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> Obtain knowledge about the structure of elementary mathematics with respect to advanced mathematics; the development of mathematical skills of prospective teachers.	
<b>Brief outline of the course:</b> Language of Mathematics; syntax and semantics; sets, relations, rational and irrational numbers, equations and inequations in reals; elementary functions	
<b>Recommended literature:</b> A. H. Schoenfeld: Cognitive science and mathematics education, Routledge, 1987 Thomas P. Carpenter, John A. Dossey, Julie L. Koehler: Classics in mathematics education research, NCTM, 2004 W.W. Esty: The Language of Mathematics, 2008 F. Klein: Elementary Mathematics from an Advanced Standpoint, 1945	
<b>Course language:</b> Slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
N	P
0.0	100.0
<b>Provides:</b> prof. RNDr. Jozef Doboš, CSc.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dZMG/14	<b>Course name:</b> Obtaining of a mobility grant
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 10	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 27.03.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ ODP/14	<b>Course name:</b> PhD thesis defence
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 30	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
N	P
0.0	100.0
<b>Provides:</b>	
<b>Date of last modification:</b> 14.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPDK/12	<b>Course name:</b> Presentation of results at a local conference
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 12	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPDZ/12	<b>Course name:</b> Presentation of results at a local conference with international participation
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 50	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dVMK/14	<b>Course name:</b> Presentation of results at an international conference
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 11	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 11.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPSM/12	<b>Course name:</b> Presentation of results in a seminar
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 57	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dVOP/12	<b>Course name:</b> Reviewer report
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPNC/12	<b>Course name:</b> Scientific publication in non-current content journal
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 8	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPNZ/12	<b>Course name:</b> Scientific publication in non-reviewed proceedings
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 16	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPRZ/12	<b>Course name:</b> Scientific publication in peer-reviewed proceedings
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 9	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPCR/12	<b>Course name:</b> Scientific publication registered in the database Math. Reviews or Zentralblatt MATH
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 7	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPCW/12	<b>Course name:</b> Scientific publication registered in the database Web of Science or Scopus
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 26	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dCSC/12	<b>Course name:</b> SCI or SCOPUS citation
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 20	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 2	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dVDM/10	<b>Course name:</b> Selected topics in didactics of mathematics
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Examination	
<b>Learning outcomes:</b> To acquire the methods and forms of mathematical education based on active self-cognitive activities with the support of modern digital technologies.	
<b>Brief outline of the course:</b> Investigation in school mathematics. Constructivism and constructionism in teaching of mathematics. Outcomes, teaching and principles IBSE (Inquiry based science education) teaching methods for different levels of independent work of the student. Introduction to the theory of didactic situations. The use of digital tools in active mathematical cognition in the learning process.	
<b>Recommended literature:</b> Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001 Kopka, J.: Výzkumný přístup při výuce matematiky. Ústí nad Labem, Acta universitatis purkynianae, 2004 John A. Van de Walle, Karen S. Karp and Jennifer M. Bay-Williams: Elementary and Middle School Mathematics: Teaching Developmentally (7th Edition), Allyn & Bacon; 7 edition 2009 Douglas a. Grouws: Handbook of Research on Mathematics, Information Age Publishing, 2006 Průcha J.: Moderní pedagogika, Portál Praha, 2009	
<b>Course language:</b> Slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 17	
N	P
0.0	100.0
<b>Provides:</b> doc. RNDr. Dušan Šveda, CSc.	

<b>Date of last modification:</b> 26.02.2014
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPPC/12	<b>Course name:</b> Semestral pedagogical activity
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 68	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> Dek. PF UPJŠ/JSD/14	<b>Course name:</b> Spring School for PhD Students
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> 4d <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 52	
abs	n
100.0	0.0
<b>Provides:</b> doc. RNDr. Vladimír Zeleňák, PhD.	
<b>Date of last modification:</b> 06.03.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dSMD/10	<b>Course name:</b> Statistical methods for data analysis
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Individual project work. Exam.	
<b>Learning outcomes:</b> The student should know and be able to apply basic concepts and principles of statistical methods using a PC and software RExcel in the design of didactical experiment, in obtaining and processing the results with the subsequent statistical interpretation.	
<b>Brief outline of the course:</b> <ol style="list-style-type: none"> <li>1. Basic concepts and principles of statistical methods for didactical experiment design and data collection.</li> <li>2. Data visualization, data reduction in an MS Excel spreadsheet and statistical software R.</li> <li>3. Basic principles of statistical inference. Estimation Theory.</li> <li>4. Regression and correlation analysis. Relationships between quantitative variables.</li> <li>5. Goodness-of-Fit tests and contingency tables. Relationships between qualitative variables.</li> <li>6. Testing hypotheses. Parametric testing methods.</li> <li>7. Analysis of variance (principle, testing, graphical representation).</li> <li>8. Nonparametric methods of testing.</li> <li>9. Simulation methods. Bootstrap methods.</li> <li>10. Introduction to multivariate statistical analysis.</li> </ol>	
<b>Recommended literature:</b> ANDĚL, J. (2005), Základy matematické statistiky, Praha: MatFyzPress, (in Czech) BOX G.E.P., HUNTER J.S., HUNTER W.G. (2005), Statistics for Experimenters: Design, Innovation, and Discovery, 2nd ed., Wiley-Interscience CASELLA, G., BERGER, R.(2002), Statistical Inference, 2nd ed., Duxbury Press CRAWLEY, M.J. (2005), Statistics: An Introduction using R, New York: Wiley HEIBERGER, R. M., NEUWIRTH, E. (2009), R Through Excel: A Spreadsheet Interface for Statistics, Data Analysis, and Graphics, Springer MOORE, D.S.(2000), The Active Practice of Statistics, New York: W. H. Freeman MOORE, D.S., McCABE, G.P.(2005). Introduction to the Practice of Statistics, 5th ed., W. H. Freeman, UTTS, J.M., HECKARD, R.F.(2007) Mind od Statistics, Third ed., Thomson Brooks/Cole	

<b>Course language:</b> Slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 13	
N	P
0.0	100.0
<b>Provides:</b> RNDr. Martina Hančová, PhD.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dZSP/12	<b>Course name:</b> Study stay abroad
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 6	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dDZS/14	<b>Course name:</b> Summary doctoral exam
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Acquiring the required number of credits in the structure defined by the study plan.	
<b>Learning outcomes:</b> Evaluation of student's competences with respect to the profile of the graduate.	
<b>Brief outline of the course:</b> The summary doctoral exam is organised as a discourse focusing on 3 courses serving as credit sources for a PhD student (the course is chosen by the supervisor of the student after consulting with the guarantee of the study programme).	
<b>Recommended literature:</b>	
<b>Course language:</b> slovak	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
N	P
0.0	100.0
<b>Provides:</b>	
<b>Date of last modification:</b> 14.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dVBP/12	<b>Course name:</b> Supervising a bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dVPS/12	<b>Course name:</b> Supervising a student's scientific work
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 1	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dTVM/10	<b>Course name:</b> Theory of mathematics education
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present	
<b>Number of credits:</b> 6	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Examination	
<b>Learning outcomes:</b> Obtain knowledge about the structure of the process of knowledge in mathematics, the development of mathematical skills, acquire the methodology of quantitative and qualitative research in Mathematics Education.	
<b>Brief outline of the course:</b> Creating definitions in mathematics and teaching mathematics. Structure, diagnostics and development of key mathematical competences. Phylogeny and ontogeny of teaching topics according to the State Education Programme - equations and inequalities, infinitesimal calculus, combinatorics, probability and statistics. Planimetry, stereometry, analytical geometry. Assessment in mathematics, standards development and didactic tests. Educational Research in Mathematics Education, comparison of quantitative and qualitative research.	
<b>Recommended literature:</b> M.Hejný a kol.: Teória vyučovania matematiky (Teaching mathematics theory), SPN Blava 1989, J.Kopka: Hrozny problému ve školské matematice (Clusters of problems in school mathematics. Ústí nad Labem, 1999 R.Fischer,G.Malle: Človek a matematika (Human and mathematics), SPN Bratislava 1992 A. Plocki: Pravdepodobnosť okolo nás (Probability about us), KU Ružomberok, 2004 A. H. Schoenfeld: Cognitive science and mathematics education, Routledge, 1987 R. Švaříček, K. Šed'ová: Kvalitativní výzkum v Pedagogických vědách (Quantitative research in pedagogical sciences), Portál Praha, 2007 Thomas P. Carpenter, John A. Dossey, Julie L. Koehler: Classics in mathematics education research, NCTM, 2004	
<b>Course language:</b> Slovak	
<b>Notes:</b>	

<b>Course assessment</b>	
Total number of assessed students: 20	
N	P
0.0	100.0
<b>Provides:</b> doc. RNDr. Dušan Šveda, CSc.	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚMV/ dPDS/14	<b>Course name:</b> Thesis to the summary doctoral exam
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present	
<b>Number of credits:</b> 15	
<b>Recommended semester/trimester of the course:</b> 3., 4..	
<b>Course level:</b> III.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Obtaining required number of credits as given by the study plan.	
<b>Learning outcomes:</b> Evaluation of student's competences with respect to the profile of the graduate.	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b> Slovak or English	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 4	
abs	n
100.0	0.0
<b>Provides:</b>	
<b>Date of last modification:</b> 26.02.2014	
<b>Approved:</b> prof. RNDr. Jozef Doboš, CSc.	