CONTENT

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dALG/10	**Course name:** Algebra

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
passing the exam

Learning outcomes:
The students will gain a deeper knowledge about the most important algebraic stuctures (group,ring, field, Boolean algebra) and their applications in various disciplines of mathematics as well as outside mathematics.

Brief outline of the course:
Groups, rings, fields of algebraic numbers, Galois groups, Boolean algebras and lattices.

Recommended literature:
1. G. Birkhoff, S. MacLane : Prehľad modernej algebry, Alfa, Bratislava 1979.
2. J. J. Rotman: Advanced Modern Algebra, Amer. Math. Soc., 2010.
3. S. Roman: Lattices and Ordered Sets, Springer 2008.

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 16

N	P
0.0	100.0

Provides: doc. RNDr. Miroslav Ploščica, CSc., prof. RNDr. Danica Studenovská, CSc.

Date of last modification: 24.03.2023

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dCDC/12	**Course name:** Citation in a Slovak scientific journal
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	

abs	n
0.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dCMG/12	**Course name:** Citation in a monograph
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	

abs	n
0.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dCZC/12	**Course name:** Citation in an international scientific journal
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	

abs	n
0.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dSVP/14	**Course name:** Co-researcher of an APVV or VEGA project
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 83	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dSVG/12	**Course name:** Co-researcher of an internal grant
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 87	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dSMP/14	**Course name:** Co-researcher of an international project
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 3	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 13	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPOV/12	**Course name:** Conference organising commiittee membership
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 5

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dDTM/15	**Course name:** Digital technologies in mathematics education

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 5

Recommended semester/trimester of the course: 1., 3.

Course level: III.

Prerequisities:

Conditions for course completion:
Orientation in basic concepts related to computer-assisted education. Demonstrating an overview of the possibilities of using different types of modern digital technologies to support active learning of mathematics. Ability to effectively use different types of digital technologies depending on the types of solved mathematical problems. Ability to assess the resources for mathematics education available on the Internet in terms of the extent and way of their use in teaching mathematics.
Evaluation:
Elaboration of a seminar work on a topic agreed with the teacher. Final exam.

Learning outcomes:
The student is able to characterize the basic possibilities and procedures of work in various types of modern digital technologies usable to support mathematical education. The student is able to give suitable examples from school mathematics, in solving which it is possible to effectively use specific digital technologies. The student is able to design a procedure for the use of digital technologies to support the various stages of the learning process and the application of inquiry approaches in the teaching of specific mathematical topics. The student is able to use critical thinking in planning the teaching of mathematics and creating a stimulating learning environment with a high degree of dynamism and interactivity, and in assessing the possibility of using educational resources available on the Internet.

Brief outline of the course:
Characteristics of possibilities of use, benefits and negative aspects of digital technologies in mathematics education.
Support of digital technologies in the application of innovative approaches to the teaching mathematics: constructivist approaches to learning, guided research, research approaches to teaching, peer instruction method, project method.
Development of selected digital competencies in the teaching of mathematics.
Data representation and mathematical modeling in a digital environment. Modeling activities in teaching mathematics.
Investigation of properties of shapes, geometric relations and functional dependencies using dynamic geometric systems.

Didactic aspects of e-learning. Strategies to support active learning in e-learning. Implementing feedback and providing contingent tutoring in digital learning materials.
Interactive mathematical documents created using CAS.

Recommended literature:

Antoch, J., Čihák, M., Prachař, J.: Použití programu MUPAD ve středoškolské výuce, Pravděpodobnost a statistika na střední škole, Univerzita Karlova v Praze, Matfyzpress, 2005.
Balacheff, N., Kaput, J., J.: Computer-based learning environments in Mathematics. In: International Handbook of Mathematics Education (editor: Bishop, A., J. et al.), Kluwer Academic Publishers, London, 1996, s. 469-501.
Dubinsky, E., Tall, D.: Advanced mathematical thinking and the computer. In: Advanced mathematical thinking (editor Tall, D.), Kluwer Academic Publishers, 2002, s. 231-243.
Fulier, J., Ďuriš, V., Frantová, P.: CAS (systémy počítačovej algebry) vo vyučovaní matematiky, Univerzita Konštantína Filozofa v Nitre, 2007.
Oldknow, A., Taylor, R., Tetlow, L.: Teaching Mathematics Using ICT, Bloomsbury Publishing, 2010.
Vaníček, J.: Počítačové kognitivní technologie ve výuce geometrie, Univerzita Karlova v Praze, 2009.

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 11

N	P
0.0	100.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 12.01.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dDSM/10	**Course name:** Discrete mathematics

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 3 / 1 **Per study period:** 42 / 14
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
In the covered areas of discrete mathematics the ability to formulate definitions and statements, to present proofs of statements, to explain individual steps in proofs, to know the relationships between the individual results and to solve selected problems related to given topics is required.
The evaluation is based on the results of the oral exam.

Learning outcomes:
Mastered basic methods and principles of discrete mathematics.

Brief outline of the course:
Combinatorial counting. Basic combinatorial principles and methods. Proofs in discrete mathematics. Discrete probability. An introduction to the theory of graphs. Basic cryptography

Recommended literature:
1. J. Matoušek, J. Nešetřil: Invitation to Discrete Mathematics, Univerzita Karlova - Nakladatelství Karolinum, Praha 2000.
2. E. Scheinerman: Mathematics - a Discrete Introduction. Brooks/Cale, Pacific Grove, USA, 2002.

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 10

N	P
0.0	100.0

Provides: RNDr. Igor Fabrici, Dr. rer. nat.

Date of last modification: 02.02.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dDZS/14	**Course name:** Dissertation examination
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Acquiring the required number of credits in the structure defined by the study plan.	
Learning outcomes: Evaluation of student‘s competences with respect to the profile of the graduate.	
Brief outline of the course: 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).	
Recommended literature:	
Course language: slovak	
Notes:	
Course assessment Total number of assessed students: 29	

N	P
0.0	100.0

Provides:
Date of last modification: 03.05.2015
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ AJD1/07	**Course name:** English Language for PhD Students 1

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: III.

Prerequisities:

Conditions for course completion:
Completion of e-course English for PhD Students (lms.upjs.sk), consultations (1-3).
Written assignments - Professional/Academic CV, Short Academic Biography.

Learning outcomes:
The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2.

Brief outline of the course:
Specific aspects of academic and professional English with focus on correct pronunciation, vocabulary development (noun and verb collocations, phrasal verbs, prepositional phrases, word-formation, formal/informal language, etc.), selected aspects of English grammar (prepositions, grammar tenses, passive voice, etc.), academic writing (professional/academic CV, Short Academic Biography).

Recommended literature:
Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017.
Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí – cvičebnica. Košice, Vydavateľstvo ŠafárikPress, 2021.
Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021.
McCarthy, M., O´Dell, F.: Academic Vocabulary in Use. CUP, 2008.
Štepánek, L., J. De Haff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011.
Armer, T.: Cambridge English for Scientists. CUP, 2011.
lms.upjs.sk

Course language:
English, level B2 according to CEFR

Notes:

Course assessment
Total number of assessed students: 738

N	Ne	P	Pr	abs	neabs
0.0	0.0	48.1	0.0	51.9	0.0

Provides: PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.

Date of last modification: 16.09.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ AJD2/07	**Course name:** English Language for PhD Students 2
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 3	
Recommended semester/trimester of the course: 2.	
Course level: III.	
Prerequisities:	
Conditions for course completion: Test, oral exam in accordance with the exam requirements (https://www.upjs.sk/filozoficka-fakulta/cjp/doktorandi-upjs/)	
Learning outcomes: The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2.	
Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development (formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference.	
Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O´Dell, F.: Academic Vocabulary in Use. CUP, 2008. Štepánek, L., J. De Haff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011. Armer, T.: Cambridge English for Scientists. CUP, 2011.	
Course language: B2 level according to CEFR	
Notes:	

Course assessment
Total number of assessed students: 729

N	Ne	P	Pr	abs	neabs
0.27	0.0	93.83	1.1	4.8	0.0

Provides: PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.

Date of last modification: 10.03.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dISLa/14	**Course name:** Individual study of scientific literature I
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 12	
Recommended semester/trimester of the course: 1., 2..	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language: Slovak and English	
Notes:	
Course assessment Total number of assessed students: 33	

abs	n
100.0	0.0

Provides:
Date of last modification: 03.05.2015
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dISLb/14	**Course name:** Individual study of scientific literature II
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 12	
Recommended semester/trimester of the course: 3., 4..	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language: Slovak and English	
Notes:	
Course assessment Total number of assessed students: 31	

abs	n
100.0	0.0

Provides:
Date of last modification: 03.05.2015
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dJMT/15	**Course name:** Language of mathematics

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 ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
exam

Learning outcomes:
The goal of the Language of Mathematics is for students to assimilate the basic concepts, reasoning patterns, and language skills that are fundamental to Mathematics.

Brief outline of the course:
The role and use of variables in the structure of mathematical expressions. Order of operations. Reading of mathematical text. Reading and writing arithmetic procedures in algebraic expressions. The key concept of set and its substance. The concept of functional dependency. The theory of solving equations and inequalities. Language of mathematical logic. Generalisation in mathematics.

Recommended literature:
B. Barton: The Language of Mathematics. Telling Mathematical Tales, Springer, 2008.
J. Barwise, J. Etchemendy: Language, Proof and Logic, Seven Bridges Press, 1999.
W. W. Esty: The Language of Mathematics, Montana State University, USA, 2008.
C. Lee: Language for Learning Mathematics. Assessment for Learnig in Practice, Open University Press, 2006.
T. Sundstrom: Mathematical Reasoning, Pearson Education, 2007.

Course language:

Notes:

Course assessment
Total number of assessed students: 1

N	P
0.0	100.0

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 14.09.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dMAN/10	**Course name:** Mathematical analysis

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
exam

Learning outcomes:
Understanding of the basic rigorous ideas of Mathematical Analysis.

Brief outline of the course:
Rings sigma-rings. Measure. Outer measure. Lebesgue measure. Measurable sets. Measurable functions. Legesgue integral. Lebesgue integral versus Riemann integral. Calculations of Lebesgue integrals. Applications.

Recommended literature:
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.

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 3

N	P
0.0	100.0

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 14.09.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dMRU/10	**Course name:** Methods for solving mathematical problems

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 ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
It is based on the results of written and oral exam.

Learning outcomes:
Obtain knowledge about the structure of elementary mathematics with respect to advanced mathematics; the development of mathematical skills of prospective teachers.

Brief outline of the course:
Language of Mathematics; syntax and semantics; sets, relations, rational and irrational numbers, equations and inequations in reals; elementary functions

Recommended literature:
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

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 8

N	P
0.0	100.0

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 14.04.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dZMG/14	**Course name:** Obtaining of a mobility grant
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 2	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PgVU/17	**Course name:** Pedagogy for University Teachers

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: Per study period: 28s
Course method: present

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
1. Development of a teaching diary—100%
2. Compulsory active participation and attendance in accordance with the Study Regulations.

Learning outcomes:
Students will be able to:
Apply didactic principles, methods, forms, and tools in the teaching of a specialised subject. Specify the educational procedures of a university teacher in subject teaching, pedagogical diagnostics, evaluation of learning outcomes, and self-reflection. Present rationalisation and streamlining possibilities in the teaching of specialised subjects. Apply educational competencies of university teachers taking into account the peculiarities of educating university students.

Brief outline of the course:
The personality of a university teacher. Teaching styles. Student in university education. Student learning styles. Possibilities of adapting teaching styles and student learning styles. University teacher–student interaction and communication in the teaching process. Pedagogical competencies of a university teacher. Didactic analysis of the curriculum; teaching materials and textbooks. Forms of university teaching. Methods of university teaching. Verification methods and student assessment. Creation of a didactic test. Designing university teaching process. University teacher self-reflection.

Recommended literature:
Čapek, R. (2015). Moderní didaktika. Lexikon výukových a hodnoticích metod. Praha, Grada Publishing, a.s.
Danek, J. (2014). Pedagogická komunikácia na vysokej škole. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Dargová, J. (2001). Tvorivé kompetencie učiteľa. Prešov, Privat Press.
Dvořáček, J. (2014). Základy pedagogiky. Praha, Oeconomica.
Hupková, M., Petlák, E. (2004). Sebareflexia a kompetencie v práci učiteľa. Bratislava, IRIS.
Kyriacou, CH. (1996). Klíčové dovednosti učitele. Praha, Portál.
Mertin, V. a kol. (2012). Metody a postupy poznávaní žáka: pedagogická diagnostika. Praha, Wolters Kluwer.
Petty,G. (2013). Moderní vyučování. Praha, Portál.

Prucha, J. (2013). Moderní pedagogika. Praha, Portál.
Sirotová, M. (2014). Vysokoškolský učiteľ v edukačnom procese. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Slávik, M. a kol. (2012). Vysokoškolská pedagogika. Praha, Grada.
Šebeň Zaťková, T. (2014). Úvod do vysokoškolskej pedagogiky. Trnava, Univerzita sv.Cyrila a Metoda v Trnave.
Turek, I. (2014). Didaktika. Bratislava, Wolters Kluwer, s.r.o.
Zormanová, L. (2014). Obecná didaktika. Praha, Grada.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 78

abs	n	neabs
98.72	0.0	1.28

Provides: doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 07.09.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ ODP/14	**Course name:** PhD thesis defence
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 30	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 27	

N	P
0.0	100.0

Provides:
Date of last modification: 07.12.2021
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPDK/12	**Course name:** Presentation of results at a local conference
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 21	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPDZ/12	**Course name:** Presentation of results at a local conference with international participation
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 99

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dVMK/14	**Course name:** Presentation of results at an international conference
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 104	

abs	n
100.0	0.0

Provides:	
Date of last modification:	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPSM/12	**Course name:** Presentation of results in a seminar

Course type, scope and the method:
Course type:
Recommended course-load (hours):
Per week: Per study period:
Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 200

abs	n
100.0	0.0

Provides:

Date of last modification:

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/PsVU/17	**Course name:** Psychology for University Lecturers

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: Per study period: 28s
Course method: present

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Case study, micro-output, its analysis
Current modifications of the course are listed in the electronic bulletin board of the course.

Learning outcomes:
After completing the course, students can:
and Understand, summarize and explain selected psychological knowledge from cognitive psychology, emotion and motivation psychology, personality psychology, developmental, social, educational psychology and health psychology.
b) apply the above psychological knowledge necessary for the professional, competent performance of university teaching practice of doctoral students
c) to create and implement the teaching of a professional topic with applied psychological knowledge
d) evaluate their performance and the performance of their classmates, provide feedback

Brief outline of the course:
The content of the course is based on selected psychological knowledge of cognitive psychology, psychology of emotions and motivation, personality psychology, developmental, social, educational psychology and health psychology. Teaching is realized by a combination of lectures with interactive, experiential methods, discussion, open communication with mutual respect, support of independence, activity and motivation of students. Syllabus: University teacher and his work in the teaching process with a focus on: teachers in relation to themselves (cognitive, personal, social and competencies in the use of methods), in relation to students and as part of the teacher-student relationship on the basis of selected areas of cognitive psychology, psychology of emotions and motivation, developmental psychology, social psychology, educational psychology and health psychology with application to the university environment

Recommended literature:
Alexitch, L. R. (2005). Applying social psychology to education. Social Psychology.–Ed.: Schneider F., Gruman J., Coutts L.–Sage Publications, Inc, 205-228.
Fry, H., Ketteridge, S., & Marshall, S. (2008). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge.
Mareš, J.: Pedagogická psychologie. Portál, 2013.

Kniha psychologie. Universum, 2014
Čáp, J., Mareš, J.: Psychologie pro učitele. Praha: Portál 2007.
Vágnerová, M.: Školní poradenská psychológie pro pedagogy. Praha: Karolínum 2005.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 70

abs	n	neabs
100.0	0.0	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 24.06.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dVPM/15	**Course name:** Research approach to mathematics education

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 ECTS credits: 6

Recommended semester/trimester of the course: 1., 3.

Course level: III.

Prerequisities:

Conditions for course completion:
Characterization of research approach to mathematics teaching. Gain an overview of ways to implement a research approach to the teaching of mathematics and methods of developing students' skills for scientific work. Ability to plan the application of a research approach to the teaching of specific mathematical topics and to describe the preparation of appropriate teaching aids for teaching.
Assessment method: exam.

Learning outcomes:
Acquisition of basic principles and procedures in applying the research approach to mathematics education. Gain practical experience with the creation of methodological and teaching materials for teaching mathematics at primary and secondary schools.

Brief outline of the course:
The concept of the IBSE method and the possibilities of its implementation in mathematics education.
Case studies of the use of research methods in teaching specific mathematical topics.
Structure of competencies for scientific work from the perspective of the student / pupil.
Possibilities of using digital technologies in the application of research approaches to the teaching of mathematics.

Recommended literature:
Kopka. J.: Zkoumání ve školské matematice, Ružomberok, 2006.
Hejný, M., Novotná, J., Stehlíková, N.: Dvacet pět kapitol z didaktiky matematiky, Univerzita Karlova v Praze, 2004.
De Villiers, M., D.: Rethinking proof with The Geometer's Sketchpad. Key Curriculum Press, 2003.
Held, Ľ. a kol.: Výskumne ladená koncepcia prírodovedného vzdelávania. Pedagogická fakulta Trnavskej univerzity v Trnave, 2011.

Course language:
Slovak or English

Notes:

Course assessment Total number of assessed students: 3	
N	P
0.0	100.0
Provides: doc. RNDr. Dušan Šveda, CSc., doc. RNDr. Stanislav Lukáč, PhD.	
Date of last modification: 12.01.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dVOP/12	**Course name:** Reviewer report
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 1

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dCSC/12	**Course name:** SCI or SCOPUS citation
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 14	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPRZ/12	**Course name:** Scientific publication in peer-reviewed proceedings
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 31	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPCR/12	**Course name:** Scientific publication registered in the database Math. Reviews or Zentralblatt MATH
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 9

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPCM/17	**Course name:** Scientific publication registered in the database MathEduc
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 5	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPCW/12	**Course name:** Scientific publication registered in the database Web of Science or Scopus
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment

Total number of assessed students: 69

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dVDM/10	**Course name:** Selected topics in didactics of mathematics

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 ECTS credits: 6

Recommended semester/trimester of the course: 4.

Course level: III.

Prerequisities:

Conditions for course completion:
Seminar work and its presentation at the seminar – development of a proposal for the methodology of self research and literature review with the aim to place the research in the national and global context.

Learning outcomes:
The graduate of the course will compile literature review, which is related to the topic of the dissertation. This research will help him/her to orient himself/herself
- in the current research in didactics of mathematics on national and international level in order to be able to include self research to these contexts.
- in the different research methods used in the didactics of mathematics, so that he/she will be able to choose methods for his/her own research appropriately.

Brief outline of the course:
The course deals with various research methods used in didactic of mathematics, important topics in mathematics teacher education, as teaching and learning big ideas in mathematics, models of mathematics teacher knowledge (MKT – Mathematics Teacher Knowledge, MTSK – Mathematics Teacher Specialized Knowledge) and recognized theories of mathematics teaching and learning such as Realistic mathematics education, Theory of didactical situations in mathematics, Van Hiele's theory of geometric thinking, etc. The aim of the course is to deepen knowledge and acquire research skills in the didactics of mathematics.

Recommended literature:
Ball, D. L., Thames, M. H., & Phelps, G. Content knowledge for teaching: what makes it special? Journal of Teacher Education, 59, 389-407, 2008
Bishop, A.J. et al. (eds.), International Handbook of Mathematics Education 1/2, Kluwer Academic Publishers,1996
Bishop, A.J. (ed.). Second International Handbook of Mathematics Education 1/2, Kluwer Academic Publishers, 2003
Brousseau, Guy, Novotná, Jarmila a Sarrazy, Bernard. Didactic contract. In: Lerman, Stephen (ed.), Encyclopedia of Mathematics Education, 153-159, Springer, 2014.

Carrillo, J., Climent, N., Montes, M., Contreras, L., Flores-Medrano, E., Escudero-Ávila, D. . . . Muñoz-Catalán, M. C. et al. The mathematics teacher's specialised knowledge (MTSK) model. Research in Mathematics Education, 20, 236–253, 2018
Hejný, M. a kol. Teórie vyučovania matematiky 2. Bratislava: SPN, 1991
Hejný, M. a Kuřina, F. Dítě škola matematika. Praha: Portál, 2009
Hejný, M.; Novotná, J.; Stehlíková, N. Dvacet pět kapitol z didaktiky matematiky. Praha: PedF UK, 2004
Kaiser, G., Presmeg, N.: Compendium for Early Career Researchers in Mathematics Education, Springer, 2019
Miles, M. B., Huberman, A. M., Saldana, J.: Qualitative Data Analysis. SAGE Publications, Inc., 2014
Polya, G. How to solve it. Princeton University Press, 1945
Sriraman, B. English, L.: Theories of Mathematics Education, Springer, 2010
Strauss, A., Corbinová, J. Základy kvalitativního výzkumu. Postupy a techniky zakotvené teorie, Brno: 1999
Vondrová N., Rendl, M. a kol. Kritická místa matematiky základní školy v řešení žáků. Praha: Karolinum, 2016

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 15

N	P
0.0	100.0

Provides: doc. RNDr. Dušan Šveda, CSc.

Date of last modification: 09.02.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dPPC/12	**Course name:** Semestral pedagogical activity
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 233

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Dek. PF UPJŠ/JSD/14	**Course name:** Spring School for PhD Students

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: Per study period: 4d
Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Active participation in the Spring School of PhD students of UPJŠ.

Learning outcomes:
By actively participating in the Spring School of PhD Students of UPJŠ, the PhD student demonstrates a high level of ability to process the issues of his dissertation for a multidisciplinary audience with an emphasis on clarifying the motivation, scientific problem, processing methodology and own contribution to the solution of the selected topic. The PhD student demonstrates the ability to professionally discuss various research topics, present his own positions and accept a plurality of opinions. Demonstrates the ability to communicate research results to a wider professional audience with adequate means and through the Slovak language.

Brief outline of the course:
1. Interdisciplinary lectures from the fields of medicine, natural sciences, law, public affairs, humanities. Lecturers - top foreign or national experts from the mentioned fields.
2. Scientific lectures in sections created within related disciplines. Lecturers - top experts from UPJŠ from the mentioned fields.
3. Scientific contributions of PhD students in sections of related fields.
4. Panel discussions on the issue of PhD studies and current trends in the development of scientific disciplines at UPJŠ.

Recommended literature:
Proceedings of the Spring School of Doctoral Students.

Course language:

Notes:

Course assessment
Total number of assessed students: 187

abs	n
100.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 08.11.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dSMD/10	**Course name:** Statistical methods for data analysis

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 ECTS credits: 6

Recommended semester/trimester of the course: 2., 4.

Course level: III.

Prerequisities:

Conditions for course completion:
Individual project work. Exam.

Learning outcomes:
The student should know and be able to apply basic concepts and principles of statistical methods using a PC and software R in the design of didactical experiment, in obtaining and processing the results with the subsequent statistical interpretation.

Brief outline of the course:
1. Basic concepts and principles of statistical methods for didactical experiment design and data collection.
2. Data visualization, data reduction in an MS Excel spreadsheet and statistical software R.
3. Basic principles of statistical inference. Estimation Theory. (2 weeks)
4. Regression and correlation analysis. Relationships between quantitative variables.
5. Goodness-of-Fit tests and contingency tables. Relationships between qualitative variables.
6. Testing hypotheses. Parametric testing methods. (2 weeks)
7. Analysis of variance.
8. Nonparametric methods of testing.
9. Quantitative oriented research, research methods - observation, scaling, questionnaire, interview.
10. Validity and reliability of research instruments.

Recommended literature:
1. Utts, J.M., Heckard, R.F. (2021), Mind od Statistics, 6th ed., Thomson Brooks/Cole
2. Peck, R., Short, T. (2019), Statistics: Learning from Data, 2nd ed., Cengage Learning
3. Box, G.E.P., Hunter J.S., Hunter W.G. (2005), Statistics for Experimenters: Design, Innovation, and Discovery, 2nd ed., Wiley-Interscience
4. Fox, J., (2017), Using the R Commander, Taylor&Francis
5. Gavora, P. (2001) Úvod do pedagogického výskumu, UK Bratislava (in Slovak)
6. Burke Johnson, R., Christensen, L.B. (2019), Educational Research: Quantitative, Qualitative, and Mixed Approaches, 7th ed., Sage Publications, Inc

Course language:
Slovak

Notes:	
Course assessment Total number of assessed students: 32	
N	P
0.0	100.0
Provides: doc. RNDr. Martina Hančová, PhD.	
Date of last modification: 13.09.2021	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dZSP/12	**Course name:** Study stay abroad
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 14

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dVBP/12	**Course name:** Supervising a bachelor thesis
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 7	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ dVPS/12	**Course name:** Supervising a student's scientific work
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 3

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ dTVM/10	**Course name:** Theory of mathematics education

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 ECTS credits: 6

Recommended semester/trimester of the course: 1.

Course level: III.

Prerequisities:

Conditions for course completion:
Examination

Learning outcomes:
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.

Brief outline of the course:
Creating definitions in mathematics and teaching mathematics - 2 w. Structure, diagnostics and development of key mathematical competences -2. Phylogeny and ontogeny of teaching topics according to the State Education Programme - equations and inequalities, infinitesimal calculus, combinatorics, probability and statistics - 2. Planimetry, stereometry, analytical geometry. Assessment in mathematics, standards development and didactic tests - 2. Educational Research in Mathematics Education, comparison of quantitative and qualitative research - 3.

Recommended literature:
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. Švařiček, K. Šeďová: Kvalitatívni 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

Course language:
Slovak

Notes:

Course assessment Total number of assessed students: 14	
N	P
0.0	100.0
Provides: doc. RNDr. Dušan Šveda, CSc.	
Date of last modification: 14.09.2021	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ PDS/18	**Course name:** Writing dissertation work
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 0	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 2

N	P
0.0	100.0

Provides:
Date of last modification:
Approved: prof. RNDr. Jozef Doboš, CSc.