CONTENT

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/AFV/15	**Course name:** Activating forms of biology teaching

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: 3.

Course level: II.

Prerequisities: ÚBEV/DIB1/03

Conditions for course completion:
Colloquium - presentation of seminar work.

Learning outcomes:
Extension of pedagogical skills with new teaching methods resulting from educational and scientific projects solved at the Department of Biology Didactics. Involvement in projects and practical training of innovative activities.

Brief outline of the course:
Teacher and student - partners in learning. The development of science skills through IBSE (Inquiry based science education). New approaches to formative and summative assessment in IBSE. New educational technologies supporting IBSE. Different ways of working with text when learning biology. Project management and cooperative methods for biology lessons. Presentation of seminar work.

Recommended literature:
Kimáková, K.: Úvod do štúdia didaktiky biológie, elektronický študijný text, 2008
Kireš, M. [et al.] .Bádateľské aktivity v prírodovednom vzdelávaní [Inquiry activities in science education] časť A . - 1. vyd. - Bratislava : Štátny pedagogický ústav, 2016. - 128 s. - Projekt: Establish 244749 ; Sails 2890085. - ISBN 9788081181559
Standards and biology textbooks for Slovak lower and upper secondary schools (ISCED 2, ISCED 3)
Study materials of the internal course published in Moodle https://lms.upjs.sk/login/index.php

Course language:

Notes:

Course assessment
Total number of assessed students: 47

A	B	C	D	E	FX
70.21	17.02	12.77	0.0	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 16.12.2021
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/AVV/26	**Course name:** Aplikácia vedeckého výskumu do výučby biológie

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚBEV/DIB1/03 and ÚBEV/MPPb/15

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD., Mgr. Zuzana Boberová, PhD., RNDr. Anna Mišianiková, PhD.

Date of last modification: 03.12.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ AIM/22	**Course name:** Application of ICT into mathematics teaching

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: 3.

Course level: II.

Prerequisities: ÚMV/DDMb/22

Conditions for course completion:
To master specific means of information and communication technologies usable for the support of mathematical education and for solving various types of mathematical problems. To be able to assess and evaluate the suitability and ways of using selected types of modern technologies to support active learning of mathematics. To be able to apply the basic principles of constructivism and research approaches to the teaching of mathematics in the planning and preparation of the teaching of mathematics. To be able to find and prepare ideas and examples for meaningful and effective use of information and communication technologies in the teaching process, to point out several possibilities of solving mathematical problems.
Rating:
Entry questionnaire - 2 b.
Design and solution of motivational word problems for the use of systems of linear equations - 5 b.
Test for the application of a spreadsheet in solving mathematical problems - 4 b.
Project for the application of the EUR model or research-oriented teaching in teaching a selected topic - 10 b.
Didactic processing of a selected construction task - 5 b.
Test for solving construction tasks - 4 b.
Participating in a discussion forum - 2 b.
Use of CAS in solving tasks - 5 b.
Design of examples for the use of CAS in teaching mathematics - 8 b.
Classification scale:
A: 91 % - 100 %, B: 81 % - 90 %, C: 71 % - 80 %, D: 61 % - 70 %, E: 51 % - 60 %, FX: 0 % - 50 %.

Learning outcomes:
Students will learn standard work procedures for the use of modern information and communication technologies in solving mathematical problems. Students will be provided with examples and suggestions for the use of modern information technologies in creating a stimulating learning environment supporting active learning mathematics. Students will gain skills in the use of modern information technologies in modeling real situations and exploring mathematical patterns. Development of creative and evaluation skills of students to plan and prepare the teaching of

specific topics in school mathematics with effective and meaningful use of modern information technologies.

Brief outline of the course:
1. Integration of modern information technologies into mathematical education.
2. - 3. Possibilities of using mathematical tools of a spreadsheet in modeling and solving algorithmic problems in teaching mathematics.
4. - 5. Constructivist conception of teaching mathematics, research of properties of mathematical objects and their mutual relations.
6. - 7. Solving construction tasks, examining the properties of identical and similar transformations and their use in solving problems.
8. Possibilities of using dynamic geometric systems in solving selected types of stereometry tasks.
9. - 10. Mathematical modeling and problem solving in the CAS environment. The position of CAS in the teaching of mathematics.

Recommended literature:
Oldknow, A., Taylor, R., Tetlow, L.: Teaching Mathematics Using ICT, Bloomsbury Publishing, 2010.
Lukáč, S.: Multimédiá a počítačom podporované učenie sa v matematike, PF UPJŠ Košice 2001.
Johnston-Wilder, S., Pimm, D.: Teaching secondary mathematics with ICT, Open University Press, 2005.
Vaníček, J.: Počítačové kognitivní technologie ve výuce geometrie. Pedagogická fakulta Univerzity Karlovy, 2009.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 244

A	B	C	D	E	FX
44.67	29.1	15.57	6.56	4.1	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 19.04.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ APM/19	**Course name:** Applications of mathematics

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Presentation on the chosen topic during the seminar.

Learning outcomes:
Students get an overview of applications of mathematics and its tools in various areas of human activity.

Brief outline of the course:
1. Applications of graphs in analysis of complex networks, their central actors and their community structure.
2. Statistical methods used in shape recognition (geometric morphometrics, principal component analysis, linear regression) with application in the analysis of dinosaur skulls and other examples of the use of shape recognition in practice.

Recommended literature:
1. E. A. Robinson, D. H. Ullmann: A mathematical look at politics, CRC Press, 2010.
2. U. Brandes, T. Erlebach: Network Analysis: Methodological Foundations (Lecture Notes in Computer Science, 3418), 2005.
3. Karchynskaya, V., Kopčáková, J., Klein, D., Gába, A., Madarasová-Gecková, A., van Dijk, J. P., de Winter, A. F. a Reijneveld, S. A. (2020). Is BMI a Valid Indicator of Overweight and Obesity for Adolescents? Int. J. Environ. Res. Public Health, 17, 4815.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 51

A	B	C	D	E	FX
90.2	9.8	0.0	0.0	0.0	0.0

Provides: prof. RNDr. Tomáš Madaras, PhD., RNDr. Andrej Gajdoš, PhD., RNDr. Lenka Halčinová, PhD., RNDr. Jaroslav Šupina, PhD., Mgr. Martin Vodička, Dr. rer. nat.

Date of last modification: 25.08.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/BDB/22	**Course name:** Biology and Didactics of Biology

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: II.

Prerequisities: ÚBEV/VEK1/03 and (ÚBEV/VMK/22 or ÚBEV/MKVU/15) and ÚBEV/DIB1/03

Conditions for course completion:
State exams in the subject of biology and didactics of biology are held in the form of an oral exam. The student has to demonstrate professional knowledge of the drawn topic and present it in a broader context. Each topic is assigned a didactic problem, which is to explain and apply to the teaching of the content at the secondary (secondary) or primary (primary) school level (marked).

Learning outcomes:
Graduates will gain the ability to teach biology at lower and upper secondary education.

Brief outline of the course:
Wider context of general ecology and biology of multicellular organisms and microorganisms.
Didactic elements of teaching biology and their application to specific didactic problems and given content at the level of primary and secondary school.
Strategies and trends in teaching biology and examples of their application in school practice.

Recommended literature:
Current school documents in the Slovak Republic.
Other sources are listed in the recommended literature of profile subjects, which are followed by a state exam.

Course language:
SK

Notes:

Course assessment
Total number of assessed students: 101

A	B	C	D	E	FX
38.61	26.73	20.79	10.89	1.98	0.99

Provides:

Date of last modification: 13.05.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/SNP/09	**Course name:** Bullying, Violence and Their Prevention

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., 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Active participation in seminars. Detailed information will be given.
Active participation - 20%
Seminar work - 40%
Seminar work 2 - 40%

Learning outcomes:
Knowledge: the graduate of the course can summarize the latest knowledge about bullying in schools and its consequences.
Skills. The student is able to analyse problem situations related to bullying and solve them. The student will develop professional skills through the implementation of prevention activities in seminars.
Competences. The graduate of the course is sensitive to the issue of bullying, knows how to identify bullying in the early stages and prevent it from developing into serious forms.

Brief outline of the course:
Aggressive behavior. Characteristics of actors of bullying (personality, characteristics of family environment). Manifestations and possible causes of bullying. Bullying as a group process. The role of teacher, school and parent in solving bullying. Possibilities of prevention of bullying at the level of school, class, individuals. Primary, secondary and tertiary prevention. Socio-psychological activities used in the prevention of bullying.

Recommended literature:
Kolář, M.: Bolest šikanování. Cesta k zastavení epidemie šikanování ve školách. Portál, Praha, 2001
Jánošová a kol. Psychologie školní šikany. Grada, Praha, 2016
Říčan, P.: Agresivita a šikana mezi dětmi. Portál, Praha, 1995
Janošová, P., Kollerová, L., Cakirpaloglu, P., & Vorlíček, R. (2023). Empatie žáků vůči šikanovaným spolužákům. Československá psychologie, 67(1), 1-14.

Course language:

Notes:

Course assessment
Total number of assessed students: 271

A	B	C	D	E	FX
87.82	11.07	0.74	0.37	0.0	0.0

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 03.09.2024

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPO/ SDaM/15	**Course name:** Child and Adolescent Sociology

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: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Summary of assessment: A: 40-38; B: 37,5-35,5; C: 35-33; D: 32,5-30,5; E: 30-28; FX: less than 28

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1068

A	B	C	D	E	FX
50.94	28.28	14.42	3.84	1.87	0.66

Provides: doc. Mgr. Alexander Onufrák, PhD.

Date of last modification: 27.08.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ MT/09	**Course name:** Class Management

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 647

A	B	C	D	E	FX
52.7	35.09	9.58	1.39	0.46	0.77

Provides: doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMAT/KTH/26	**Course name:** Combinatorial game theory

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

Number of ECTS credits: 2

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

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

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

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: ÚBEV/OPR/12	**Course name:** Conservation Biology

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 2 / 0 **Per study period:** 28 / 0
Course method: present

Number of ECTS credits: 3

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Mandatory participation in lectures, completion of two semestral written examinations, oral examination.

Learning outcomes:
The main goal of the subject is to introduce term biodiversity, principal threats and conservation of species, populations, communities and ecosystems.

Brief outline of the course:
Fundamental and origin of conservation biology. Different levels of biodiversity, biodiversity hotspots on Earth. Economic value of biodiversity as the principal argument of nature conservation. Factors leading to biodiversity threats. Extinctions and problems of small populations. Conservation of populations and species, conservation programs and strategies. Classification and management of protected areas, conservation outside the protected areas. Sustainable development, education to conservation of nature.

Recommended literature:
Primack R.B., 2010: Essentials of conservation biology. Sinauer Associates, 1-603

Course language:

Notes:

Course assessment
Total number of assessed students: 832

A	B	C	D	E	FX
73.2	16.11	6.49	3.0	0.6	0.6

Provides: prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 14.12.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/MPPc/15	**Course name:** Continuous practice teaching I
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 4t **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities: ÚBEV/MPPb/15	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 350

abs	n
100.0	0.0

Provides:
Date of last modification: 16.12.2021
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ VSPc/15	**Course name:** Continuous practice teaching I
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 4t **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities: ÚMV/VPPb/15	
Conditions for course completion: Teaching of a specified number of hours and visitations of specified number of classes (18 teaching and 6 visitation of classes). Submission of written assignments (reflection on teaching practice, statement of teaching hours and classes visitations, selected lesson plans).	
Learning outcomes: Application of the knowledge acquired in didactic courses focused on teaching mathematics in pedagogical practice. Development of the student's self-reflection within the framework of the analysis of the lessons taught by the student. Identification of the student's weaknesses in order to shift his/her knowledge. Acquaint students with the atmosphere and the organization of school.	
Brief outline of the course: Visitations of classes in selected lessons Analysis of lessons Lesson plans preparation Classes managed according to prepared lesson plan Reflection on realized classes	
Recommended literature: Mathematics curricula and textbooks for middle and secondary schools Hejný, M.: Teória vyučovania matematiky 2. Bratislava : SPN 1989 M. Hejný, J. Novotná, N. Stehlíková: Dvacet pět kapitol z didaktiky matematiky 2, Univerzita Karlova v Praze - Pedagogická fakulta, Praha, 2004	
Course language: Slovak	
Notes:	

Course assessment
Total number of assessed students: 151

abs	n
100.0	0.0

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 24.08.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/MPPd/15	**Course name:** Continuous practice teaching II
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 6t **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 4.	
Course level: II.	
Prerequisities: ÚBEV/MPPc/15	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment

Total number of assessed students: 325

abs	n
100.0	0.0

Provides:
Date of last modification: 16.12.2021
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ VSPd/15	**Course name:** Continuous practice teaching II
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 6t **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 4.	
Course level: II.	
Prerequisities: ÚMV/VSPc/15	
Conditions for course completion: Teaching of a specified number of hours and visitations of specified number of classes (30 teaching and 8 visitation of classes). Submission of written assignments (reflection on teaching practice, statement of teaching hours and classes visitations, selected lesson plans).	
Learning outcomes: Application of the knowledge acquired in didactic courses focused on teaching mathematics in pedagogical practice. Development of the student's self-reflection within the framework of the analysis of the lessons taught by the student. Identification of the student's weaknesses in order to shift his/her knowledge. Acquaint students with the atmosphere and the organization of school.	
Brief outline of the course: Visitations of classes in selected lessons Analysis of lessons Lesson plans preparation Classes managed according to prepared lesson plan Reflection on realized classes	
Recommended literature: Mathematics curricula and textbooks for middle and secondary schools Hejný, M.: Teória vyučovania matematiky 2. Bratislava : SPN 1989 M. Hejný, J. Novotná, N. Stehlíková: Dvacet pět kapitol z didaktiky matematiky 2, Univerzita Karlova v Praze - Pedagogická fakulta, Praha, 2004	
Course language: Slovak	
Notes:	

Course assessment Total number of assessed students: 141	
abs	n
100.0	0.0
Provides: doc. RNDr. Ingrid Semanišinová, PhD.	
Date of last modification: 24.08.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ TTUP/15	**Course name:** Creating Text Teaching Aids

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 307

A	B	C	D	E	FX
58.96	30.94	7.17	2.28	0.65	0.0

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Vagaská, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ DNR/06	**Course name:** Dendrology

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Attending lectures is optional, participation in exercises is mandatory. 2. During the exercises, it is necessary to master the recognition of selected trees and shrubs in their various phenological phases according to significant identifying features (buds, bark, shape of leaves and flowers, habitus) and some species-specific features (cork wings, thorns, prominent pubescence, distinctive color of shoots in winter, etc.). 3. Within the framework of forest tree seed production, it is necessary to master the identification of fruits and seeds of selected taxa of woody plants.

Learning outcomes:

Brief outline of the course:
1. Summary of basic terms within the subject Dendrology. 2. Individual variability of woody plants (morphological, biochemical, biological, technical forms). 3. Geographic variability of woody plants (climate type, edaphotype). 4. Individual ecological requirements of woody plants with a basic overview of taxa (woody plants in shade and sunny conditions, oceanic and continental climate). 5. Special communities of woody plants, their characteristics and overview of the most important taxa. Pioneer woody plants, melioration woody plants, woody plants in ravines and scree, forest-steppe woody plants, floodplain woody plants, peatland woody plants and woody plants of upper forest border. 6. Saving the gene pool of forest trees (generative and clone seed orchards, selected trees and stands). 7. Selected chapters from the seed production of forest trees (external and internal factors of seed production, methods of collecting and technology of seed processing and its subsequent storage). 8. Selected chapters from forest tree seed production (seed lifespan, short-term and long-term seed storage, germination ability and germination process, methods of pre-sowing seed preparation). 9. Introduction of woody plants - definition of the term, phases of introduction. Benefits of introduction and possible environmental risks. 10. Invasive trees, overview and characteristics of the most important taxa. Ecological, economic and health consequences of invasions. 11. The most important dendrological objects in Slovakia (Mlyňany Arboretum, Borová hora Arboretum, Kysihýbel Arboretum, Topoľčianky Castle Park). 12. Introduction to arboriculture, protection and care of trees growing outside the forest. The exercises are aimed at practical recognizing the most important coniferous and deciduous both native and introduced trees. During the summer semester, dealing with woody plants in the winter (in a sterile state), the specific characteristics of woody plants (general habitus of the wood, buds, thorns, specific color of the

surface of the branch, pubescence, cork lamellas, etc.). During the growing season, recognizing the shape of the leaves and flowers..

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 86

A	B	C	D	E	FX
73.26	12.79	6.98	6.98	0.0	0.0

Provides: Ing. Peter Kelbel, Dr.

Date of last modification: 19.07.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/VPU/17	**Course name:** Developmental Psychology for Teachers

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

Number of ECTS credits: 2

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

Course level: II.

Prerequisities:

Conditions for course completion:
active participation in seminars - 20%
seminar work according to the current instructions on the electronic bulletin board- 40%
final test - 40%
Detailed and updated information will be posted on the electronic board

Learning outcomes:
The graduate will understand the principles of developmental psychology, and will be able to characterize the norm in separate developmental stages with a specific focus on the period of school age and adolescence. As part of the seminar work, a students will process current knowledge published in foreign journals. They will have a knowledge about the current social discourse on the topics covered. The graduate will be able to consider various aspects of the possible influence of parents and friends on the development of piupils and apply the knowledge of developmental psychology in the practice of the teacher.

Brief outline of the course:
Determinants and factors of development, cognitive development, personality development. Socialization in separate developmental stages (family, peers, school). Specifics of development in the period of school age, in pubescence and adolescence. Parents and their role in child development. Application of knowledge of developmental psychology in the teacher's practice - communication with students in different developmental stages, creating a teacher-student relationship with respect to the development needs of the student.

Recommended literature:
Bačíková a kol. (2023). Keď dieťa potrebuje nielen psychológa. Grada publishing.
Vágnerová, M. Vývojová psychologie. Portál, Praha 2000
Říčan, P. Cesta životem. Portál, Praha, 2004.
Thorová, K. Vývojová psychologie. Portál, Praha, 2015.
Macek, P. Adolescence. Praha: Portál, 2003
Matějček, Z. - rôzne diela
Bačíková, M. Psychológia rodičovskej kontroly, Šafárik Press, Košice 2019

Course language:

Notes:

Course assessment
Total number of assessed students: 156

A	B	C	D	E	FX
80.13	15.38	2.56	1.92	0.0	0.0

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 03.09.2024

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ DIB1/03	**Course name:** Didactics of biology

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 2 / 3 **Per study period:** 28 / 42
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: KPPaPZ/PPgU/15 or KPE/DPP/14 or KPE/PDU/15

Conditions for course completion:
It is a profiling subject with compulsory participation in exercises. The activity at the output of the lecture, the developed and continuously submitted solutions to assignments from the exercises and the final project according to the assignment at the beginning of the semester are evaluated. The final exam is oral. The share of the grade from the evaluated activities on the final grade:
1. 10% average of points for completed assignments.
2. 10% output from the lecture.
3. 20% grade for the Teaching Aid project.
4. 60% result of the final oral exam.
Overall assessment: 50% - 59% E, 60-69% D, 70-79% C, 80-89% B and 90-100% A

Learning outcomes:
Meet specific subjects teaching biology in high school and an elementary school. Learn and apply didactic knowledges in the topics of the biology curriculum with respect of psychological principles of learning. Selected biology teaching methods and technologies.

Brief outline of the course:
1 Didactics of biology in the system of sciences
2 Domains of biology education
3 Biology standards
4 Curriculum and textbooks in SR
5 Biological sciences
6 Complex of didactic tools of biology
7 Hands-on education as an educational concept
8 Teaching organization forms
9 Lesson preparation
10 Principles of knowledge
11 Formative and summative evaluation in biology
12 Biological educational strategies
13 Teaching aids of biology
14 School garden and the environment corner at school
15 Biological excursion

16 Working with talents and biological competitions for students

Recommended literature:

Katarína Kimáková Sprievodca didaktikou biológie, 2022 Šafárik press UPJŠ v Košiciach https://unibook.upjs.sk/img/cms/2022/sprievodca-didaktikou-biologie.pdf
Ganajová, M. a kol. Formatívne hodnotenie vo výučbe prírodných vied, matematiky a informatiky. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach, 2021. ISBN 9788081529733.
Ganajová a kol. Formatívne hodnotenie a jeho implementácia do výučby prírodných vied, matematiky a informatiky. Bratislava: Wolters Kluwer SR, 2022. Školstvo. ISBN 9788057104834.
Samuel Kai Wah Chu · Rebecca B. Reynolds, Nicole J. Tavares · Michele Notari, Celina Wing Yi Lee 21st Century Skills Development Through Inquiry Based Learning From Theory to Practice, Springer 2017 https://link.springer.com/content/pdf/10.1007/978-981-10-2481-8.pdf
Kimáková, K.: Úvod do štúdia didaktiky biológie, elektronický študijný text, 2008
Kireš, M., Ješková, Z., Ganajová, M, Kimáková K.. Bádateľské aktivity v prírodovednom vzdelávaní, ŠPÚ 2016
Periodical publications for teaching biology. Internal study materials in Moodle https://lms.upjs.sk/login/index.php
Existing curriculum standards and biology textbooks for elementary and secondary schools
Fišer, R.: Učíme deti myslet a učit se. Praha: Portál, 2011. 176 s. ISBN 978-80262-0043-7
Gavora, P.: Akí sú moji žiaci. (Pedagogická diagnostika žiaka). Nitra: ENIGMA, 2011. 216 s. ISBN 978-80-89132-91-1
Karnsová, M.: Jak budovat dobrý vztah mezi učitelem a žákem. Praha: Portál, 1995. 151 s. ISBN 80-7178-032-4
Kotrba, T., Lacina, L.: Praktické využití aktivizačných metod ve výuce. Brno: Společnost pro odbornou literaturu, 2007. 188 s. ISBN 978-80-87029-12-1
Kyriacou, Ch.: Klíčové dovednosti učitele. Praha: Portál, 1996. 153 s. ISBN 80-7178-022-7
Petty, G.: Moderní vyučování. Praha: Portál, 2013. 380 s. ISBN 80-7178-070-7
Silberman, M.: 101 Metod pre aktivní výcvik a vyučování. Praha: Portál, 1997. 312 s. ISBN: 80-7178-124-X

Course language:
SK, EN

Notes:

Course assessment
Total number of assessed students: 710

A	B	C	D	E	FX
52.68	29.44	14.37	3.38	0.14	0.0

Provides: PaedDr. Andrea Lešková, PhD., RNDr. Anna Mišianiková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 23.02.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ DDMa/22	**Course name:** Didactics of mathematics I

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Active participation - 40% of assessment
Seminar works - 60% of assessment

Learning outcomes:
The student understands the term function and its various aspects also in the context of different definitions of the term function. He looks critically at the school curriculum from the point of view of the development of the concept of function. It characterizes high-quality formative assessment and can react differently to correct and incorrect student solutions. He applies the acquired knowledge in the design of the lesson plan. He knows the MTSK model and knows how to use it as a tool for his self-reflection.

Brief outline of the course:
The concept of function in mathematics, its aspects, and definitions. The concept of function in the school curriculum, knowledge of the structure of mathematics with respect to the concept of function. Proximal formative assessment, knowledge of the characteristics of learning mathematics. Instrumented formative assessment with a focus on the use of digital technologies for assessment in mathematics. Selection of tasks and digital tools for teaching functions. MTSK model as a tool for teacher self-reflection.

Recommended literature:
Slovak and Czech mathematics textbooks for secondary education. National mathematics curriculum of Slovakia, Czech republic and USA.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 159

A	B	C	D	E	FX
44.03	34.59	13.21	5.66	2.52	0.0

Provides: RNDr. Matej Slabý, PhD.
Date of last modification: 26.08.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DDMb/22	**Course name:** Didactics of mathematics II

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: ÚMV/DDMa/22

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity at seminars.
3. Homework and continuous written tests.
4. Seminar work - creation of an output didactic test
Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to a student who obtains at least 50% of points from homework, at least 50% of points
from written tests, at least 50% of points from the seminar work and at least 50% from the oral exam.
3. Continuous assessment - 60% of the total assessment, oral exam - 40% of the overall assessment
At least 90% of points must be obtained to obtain an A rating, at least 80% to obtain a B rating, at least 70% to obtain a C rating, at least 60% to obtain a D rating, and at least 50% points to obtain an E rating.

Learning outcomes:
Students will learn the basic principles of teaching mathematics in secondary and primary schools, strategies for solving problems, creating problem systems, logical-didactic analysis of the curriculum and creating didactic tests. At the same time, they will demonstrate the ability to prepare for teaching specific topics with priority in primary school.

Brief outline of the course:
1. Subject of Didactics of Mathematics, the development of mathematics and mathematics education.
2. Aims and objectives of mathematics teaching
3. Planning in mathematics teaching Logical and didactical curriculum analysis Determination of learning objectives
4. - 5. Didactical principles, methods of mathematics teaching
6. - 7. Assessment of learning outcomes, the creation of didactic tests
8. Mathematical problems

9. - 10. Construction numeric fields,
11. Theory of elementary functions,
12. - 13. Synthetic and analytic geometry

Recommended literature:

[1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak)
[2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak)
[3] R.Fischer,G.Malle: Človek a matematika, SPN Bratislava 1992 (in slovak)
[4] Polya, G.: How to solve it, Princeton University Press, 1957.
[5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech)
[5] Textbooks and collections of assignments for secondary and primary schools

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 155

A	B	C	D	E	FX
34.19	32.26	21.94	7.1	3.23	1.29

Provides: doc. RNDr. Ingrid Semanišinová, PhD., prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 05.05.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DDMc/22	**Course name:** Didactics of mathematics III

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚMV/DDMb/22

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity.
3. Homework and written tests.
4. Seminar work and its presentation at the seminar - lesson plan on the selected topic
Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to a student who scores at least 50% on homework assignments, at least 50% on written tests, and at least 50% on a seminar work. A grade of A requires at least 90%, a grade of B requires at least 80%, a grade of C requires at least 70%, a grade of D requires at least 60%, and a grade of E requires at least 50%.

Learning outcomes:
The student demonstrates a shift in students' cognitive understanding specifically by orienting to some familiar general student problems (e.g., distinguishing between sentences and definitions) and to specific problems in some areas of mathematics (e.g., incorrect use of the equals sign) when solving a homework assignment.
While solving problems on written tests, the student will show that he or she has a conceptual understanding of mathematical concepts, properties and methods from school mathematics and is familiar with some standard and nonstandard procedures that students use when learning mathematics.
When presenting the seminar work, the student demonstrates that he/she is aware of the potential of the chosen topic, the necessary input knowledge of the pupils and the connections within the topic and with other topics, and has developed the objectives of the lesson properly. Furthermore, he/she demonstrates that he/she is aware of the possibilities of the proposed activities, teaching methods, selected tasks (what are their weaknesses and strengths). Demonstrates that he/she reflects on the response to a pupil's mistake in order to help him/her in his/her learning.

Brief outline of the course:

The content is based on current research findings related to mathematics teacher's specialised knowledge model. We focus mainly on pedagogical content knowledge, specifically knowledge of features of learning mathematics, knowledge of mathematics teaching, and knowledge of mathematics learning standards.
This knowledge is developed in the context of the five essential topics:
- Numbers, variables and numerical operations with numbers
- Relationships, functions, tables, diagrams
- Geometry and measurement
- Combinatorics, probability, statistics
- Logic, reasoning, proofs.

Within these essential topics we deal with the cognitive process of students, different representations of mathematical concepts, students' difficulties and their possible causes, teaching mathematical proofs, developing students' creativity, ways of motivating pupils, and also some didactical theories, such as Van Hiele's theory of geometric thinking. In each topic area we focus on critical points in terms of students' learning and the teaching of mathematics, preferably in secondary school.

Recommended literature:

[1] M.Hejný a kol. Teória vyučovania matematiky. Bratislava: SPN, 1989.
[2] Hejný, M.; Kuřina, F. Dítě, škola a matematika: konstruktivistické přístupy k vyučování. Praha: Portál, 2001.
[3] Hejný, M.; Novotná, J.; Stehlíková, N. Dvacet pět kapitol z didaktiky matematiky. Praha: PedF UK, 2004.
[4] Fischer, R.; Malle, G. Člověk a matematika, Bratislava: SPN, 1992.
[5] Vondrová Naďa a kol. Kritická místa matematiky základní školy v řešení žáků. Praha: Karolinum, 2016.
[6] Textbooks and collections of problems and taks for secondary and middle school.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 165

A	B	C	D	E	FX
50.91	16.36	18.79	7.27	6.06	0.61

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

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: ÚBEV/ DTI/25	**Course name:** Digitálne technológie a informatika v biológii

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: 3.

Course level: II.

Prerequisities: ÚBEV/DIB1/03

Conditions for course completion:
Evaluation of the course graduate's outputs: Image analysis and processing using the Fiji application (10 %), analysis of preparations for lessons from the perspective of developing students' digital competencies (20 %), design and presentation of a project focused on the implementation of digital technologies and informatics on a selected topic of the biology curriculum in primary or secondary school (70 %).

Learning outcomes:
The graduate of the course will be prepared to implement informatics and digital technologies in the teaching of biology in primary and secondary schools, appropriate to the age and abilities of the students, in accordance with the educational standard and taking into account the development of digital competencies of the students. The graduate will also use the acquired knowledge and skills in teaching the optional subject Informatics in Natural Sciences and Mathematics in secondary schools.

Brief outline of the course:
Brief outline of the course:
The course content is based on the main reference frameworks of the European Commission for digital competences for educators and citizens, namely DigCompEdu and DigComp 2.2/3.0. The course modules focus on the main areas according to the DigComp framework and are designed so that the graduate can develop all digital competences (21) included in the reference framework in students.
Modul 1: Information and data literacy
Modul 1A: Biological databases
(EurobirdPortal, BirdWeather, GlobalForestWatch, DataZone, NCBI, ResistanceMap, ...)
Modul 1B: Image analysis
(Fiji, MeshLab, 3D modeling, applications focused on analyzing species and their principle of operation – App Inventor, Flower pattern generator, ...)
Modul 1C: Analysis and creation of models and simulations
(Coach, PhetColorado, JustPhysiology, Python)
Modul 1D: Text analysis
(Perusall, ...)

Modul 2: Communication and collaboration
(Figma, ...)
Modul 3: Digital content creation
(Generative AI tools, BioRender, Curipod, Genially, Canva, ...
Modul 4: Safety
Modul 5: Problem solving

Recommended literature:

Kimáková, K. Mišianiková, A. Andrejková G.: Informatika v prírodných vedách a matematike, Zošit biológia, Centrum vedecko-technických informácií SR, Bratislava 2020, ISBN: 978-80-89965-72-4, EAN: 9788089965724
COSGROVE, J., CACHIA, R., DigComp 3.0: European Digital Competence Framework - Fifth Edition, Publications Office of the European Union, Luxembourg, 2025, ISBN: 978-92-68-32677-0, doi: 10.2760/0001149, JRC144121
Vuorikari, R., Kluzer, S., Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens – With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxemburg, 2022, ISBN: 978-92-76-48882-8, doi:10.2760/115376, JRC128415
Redecker, C.: European Framework for the Digital Competence of Educators: DigCompEdu. Punie, Y. (ed) 28 775 EUR EN, Úrad pre vydávanie publikácií Európskej únie, Luxemburg, 2017, ISBN: 978-92-79-73494-6, doi:10.2760/159770, JRC107466

Course language:
Slovak, English

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides: RNDr. Anna Mišianiková, PhD.

Date of last modification: 07.05.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ DPP2/22	**Course name:** Diploma Project 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: 3

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Regular acquaintance of the supervisor with the research process, regular consultations, study of the literature on the topic, first results and, if necessary, modification of the project.

Learning outcomes:
The student practically manages the necessary methodology and obtained the first results. He reports on them at the seminar of the department, where the assignment of the diploma thesis is announced.

Brief outline of the course:
Data collection to verify hypotheses, study of current literature.

Recommended literature:
Recommended professional literature on a specific topic of the diploma thesis is a part of the diploma thesis assignment. Methodological guideline 14/2009-R of 27 August 2009 on the requisites of final theses, their bibliographic registration, control of originality, storage and access, including annexes; Decree of the Ministry of Education of the Slovak Republic of 15 March 2010 no. MŠSR-5 / 2010-071 on the model of the cover and title page of the final, rigorous and habilitation thesis and the format of the exchange of data on the final, rigorous and habilitation thesis; Directive no. 1/2011 on the basic requirements of final theses, rigorous theses and habilitation theses, their publication and making available during their preservation and control of originality valid for Pavel Jozef Šafárik University in Košice and its components; Supplement no. 1 and no. 2 to Directive no. 1/2011 Template for the creation of ZP in dot and dotx format on the CRZP website (Central Register of Final Theses)

Course language:

Notes:

Course assessment
Total number of assessed students: 46

abs	n
100.0	0.0

Provides:
Date of last modification: 13.05.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ DPP3/22	**Course name:** Diploma Project III
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: 3.	
Course level: II.	
Prerequisities:	
Conditions for course completion: Regular consultations on the progress and results of the project with the thesis supervisor. Presentation at a seminar on a diploma project with preliminary results.	
Learning outcomes: The student processed the obtained data and / or verified the created methodological materials or aids. He has the data to process the theoretical part of his thesis and to confirm / refute hypotheses and formulate conclusions. He begins to formulate the text of his diploma thesis and continues to monitor new relevant information.	
Brief outline of the course: Processing and interpretation of results.	
Recommended literature: Recommended professional literature on a specific topic of the diploma thesis is a part of the diploma thesis assignment. Methodological guideline 14/2009-R of 27 August 2009 on the requisites of final theses, their bibliographic registration, control of originality, storage and access, including annexes; Decree of the Ministry of Education of the Slovak Republic of 15 March 2010 no. MŠSR-5 / 2010-071 on the model of the cover and title page of the final, rigorous and habilitation thesis and the format of the exchange of data on the final, rigorous and habilitation thesis; Directive no. 1/2011 on the basic requirements of final theses, rigorous theses and habilitation theses, their publication and making available during their preservation and control of originality valid for Pavel Jozef Šafárik University in Košice and its components; Supplement no. 1 and no. 2 to Directive no. 1/2011 Template for the creation of ZP in dot and dotx format on the CRZP website (Central Register of Final Theses)	
Course language: SK, EN	
Notes:	

Course assessment Total number of assessed students: 64	
abs	n
100.0	0.0
Provides:	
Date of last modification: 13.05.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ODP/22	**Course name:** Diploma Thesis and its Defense

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

Number of ECTS credits: 14

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚBEV/DPP3/22

Conditions for course completion:
The diploma thesis is the result of the student's own creative work. It must not show elements of academic fraud and must meet the criteria of good research practice defined in the Rector's Decision no. 21/2021, which lays down the rules for assessing plagiarism at Pavel Jozef Šafárik University in Košice and its components. Fulfillment of the criteria is verified mainly in the training process and in the process of job defense. Failure to do so is grounds for disciplinary action.

Learning outcomes:
With the diploma thesis the student demonstrates mastery of extended theory and professional terminology of the field of study, acquisition of knowledge, skills and competences in accordance with the declared profile of the graduate of the study program, as well as the ability to apply them in an original way. The student demonstrates the ability of independent professional work in terms of content, formal and ethical. Further details of the diploma thesis are determined by Directive no. 1/2011 on the basic requirements of final theses and the Study Regulations of UPJŠ in Košice for the 1st, 2nd and joint 1st and 2nd degree.

Brief outline of the course:
Preparation and submission of the diploma thesis to the CRZP.
Submission of the printed version to the opponent.
Presentation of work results and answers to opponents' questions.
Qualified discussion on the topic with the commission for master's state final exams.

Recommended literature:
Listed in the approved thesis assignment.

Course language:

Notes:

Course assessment
Total number of assessed students: 52

A	B	C	D	E	FX
63.46	19.23	9.62	3.85	3.85	0.0

Provides:
Date of last modification: 13.05.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ DPP1/22	**Course name:** Diploma project 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: 2	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisities:	
Conditions for course completion: Regular acquaintance of the supervisor with the progress on the agreed tasks. Submission of a research plan. Active participation in seminars organized for diploma projects implemented at departments, where the topic of the project and the assignment of the diploma thesis are listed.	
Learning outcomes: The student has mastered the theoretical preparation for the assigned topic, formulates research questions and has a research plan, or the first preliminary results. The student can also implement the diploma project at a workplace outside the UPJŠ under the guidance of an expert from practice, on a topic listed at APU ÚBEV PF UPJŠ in Košice. He also has a job consultant at ÚBEV, he is skilled in communication with experts in electronic and face-to-face form.	
Brief outline of the course: Hypothesis formulation, study of literature, preparation of materials for hypothesis testing.	
Recommended literature: Recommended professional literature on a specific topic of the diploma thesis is a part of the diploma thesis assignment. Methodological guideline 14/2009-R of 27 August 2009 on the requisites of final theses, their bibliographic registration, control of originality, storage and access, including annexes; Decree of the Ministry of Education of the Slovak Republic of 15 March 2010 no. MŠSR-5 / 2010-071 on the model of the cover and title page of the final, rigorous and habilitation thesis and the format of the exchange of data on the final, rigorous and habilitation thesis; Directive no. 1/2011 on the basic requirements of final theses, rigorous theses and habilitation theses, their publication and making available during their preservation and control of originality valid for Pavel Jozef Šafárik University in Košice and its components; Supplement no. 1 and no. 2 to Directive no. 1/2011 Template for the creation of ZP in dot and dotx format on the CRZP website (Central Register of Final Theses)	
Course language:	
Notes: SK, EN	

Course assessment Total number of assessed students: 58	
abs	n
100.0	0.0
Provides:	
Date of last modification: 13.05.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2a/22	**Course name:** Diploma project 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: 1	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 30	
abs	n
100.0	0.0
Provides:	
Date of last modification: 24.08.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2b/22	**Course name:** Diploma project 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: 1	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 24	

abs	n
100.0	0.0

Provides:
Date of last modification: 24.08.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2c/22	**Course name:** Diploma project III
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 1	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 35	

abs	n
97.14	2.86

Provides:
Date of last modification: 24.08.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2d/22	**Course name:** Diploma project IV
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: 4.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 32	

abs	n
96.88	3.13

Provides:
Date of last modification: 24.08.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PUDU/15	**Course name:** Drug Addiction Prevention in Educational Practice

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 2 / 1 **Per study period:** 28 / 14
Course method: present

Number of ECTS credits: 4

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

Course level: II.

Prerequisities:

Conditions for course completion:
1st part of the semester evaluation: active participation in the training part (30p). 2nd part of the semester evaluation: active participation in workshops (20p) 3rd part of the semester evaluation - preparation (10p) and implementation (10p) of block activities (20p, minimum 11 points). 4th part of the evaluation - written knowledge exam (20p, minimum 11 points). In total, students can get 90p and the final grade is as follows: 90 - 82: A 81 - 73: B 72 - 66: C 65 - 59: D 58 - 54: E 53 and less: FX. Detailed information in the electronic bulletin board of the course in AIS2. The teaching of the subject will be realized by a combined method.

Learning outcomes:
The student understands principals of research data based prevention of risk behavior, can describe and explain the determinants of risk behavior as well as protective and risk factors for substance use. Understands and adequately interprets the theory explaining the background of substance and non-substance addictions.
The student is also able to state and classify the types and forms of prevention, strategies and approaches in prevention, can distinguish effective strategies from ineffective ones.
The student is able to apply the learned rules, procedures and competencies for the work of a teacher in the field of drug use prevention, as well as the acquired professional skills for the work of a teacher and prevention coordinator at school.

Brief outline of the course:
Psychological, pedagogical-psychological, medical and legal-forensic aspects of substance use prevention
Prevention of substance use based on risk and resilience
Primary, secondary and tertiary prevention of substance use
Universal, selective and indicated prevention of substance use
Effective substance prevention strategies based on research data
Preparation and implementation of components of effective substance use prevention programs

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

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

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 435

A	B	C	D	E	FX
51.72	40.69	6.9	0.69	0.0	0.0

Provides: prof. PhDr. Oľga Orosová, CSc., PhDr. Janka Liptáková, PhD., MSc. Michaela Škvarová

Date of last modification: 26.01.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DGE/22	**Course name:** Dynamic geometry

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 1 / 2 **Per study period:** 14 / 28
Course method: present

Number of ECTS credits: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Master the concept of dynamic geometric systems and commands for creating and modifying dynamic constructions. To be able to use dynamic geometric systems in the study of the properties of geometric shapes and the discovery of geometric patterns. To be able to effectively use the commands of dynamic geometric systems for modeling various situations, solving geometric problems, exploring geometric transformations, exploring graphs of functions, data processing.
Rating:
Test requiring the solution of geometric problems using classical tools and the use of a dynamic geometric system - 16 b.
Elaboration of a project focused on the use of a dynamic geometric system in solving geometric problems on a selected topic - 16 b.
Classification scale:
A: 91 % - 100 %, B: 81 % - 90 %, C: 71 % - 80 %, D: 61 % - 70 %, E: 51 % - 60 %, FX: 0 % - 50 %.

Learning outcomes:
Skills to create dynamic constructions in a dynamic geometric system and to use commands usable in solving geometric problems. Knowledge and skills to effectively use geometric, algebraic and other types of tools in experimenting with geometric objects and their attributes, in discovering invariant properties of geometric shapes and geometric relationships between objects in triangles, quadrilaterals, conic sections and in basic types of spatial bodies. Be able to use geometric transformations in solving more complex constructing tasks.

Brief outline of the course:
1.-4. Constructions and investigation of properties and geometric relations in triangles, quadrilaterals, circles and their use in solving construction problems. Menelaos's theorem, Ceva's theorem, Varignon's theorem, Ptolemy's theorem, cyclic and tangential quadrilaterals, center of gravity of triangles and quadrilaterals.
5. Investigation of sets of points with a given property.
6. Discovering and testing geometric relationships.
7. Composing congruent transformations. Use of congruent and similar transformations and circular inversion for solving tasks.

8. Mathematical modeling, investigation of functional dependencies between quantities, solving problems to find extremes.
9.-10. Constructions of bodies, mutual positions of geometric shapes in space, sections of bodies, intersection of a line with a body.

Recommended literature:

Vaníček, J.: Počítačové kognitivní technologie ve výuce geometrie, Pedagogická fakulta Univerzity Karlovy, 2009
Stahl, G.: Dynamic-Geometry activities with GeoGebra for Virtual Math Teams, The Math Forum at Drexel University, 2012.
De Villiers, M., D.: Rethinking proof with the Geometer's Sketchpad. Key Curriculum Press, 2003.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 89

A	B	C	D	E	FX
51.69	25.84	17.98	4.49	0.0	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 19.04.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DYS2/24	**Course name:** Dynamic systems

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Ongoing evaluation takes the form of a written test during the semester. The overal evaluation is based on a result of mid-term evaluation (60%) and the result of final written and oral examination (40%).

Learning outcomes:
The course provides students deep knowledge of the theory of dynamical systems from the theoretical and practical point of view (their modeling, their properties and numerical simulation). Emphasis is put on an interdisciplinary approach and hte usage of software.

Brief outline of the course:
1. Basic notions of the theory of dynamical systems and their properties.
2. Differential equations of n-th order and systems of differential equations - their relationship, methods of solution.
3. Difference equations and systems - methods of solution.
4. Existence, uniqueness and continuation of Cauchy problem.
5. Applications of dynamical systems.

Recommended literature:
1. Brunovský, P. , Diferenčné a diferenciálne rovnice (vysokoškolský učebný text), FMFI UK, 2011
http://www.iam.fmph.uniba.sk/skripta/brunovsky/ddrtext.pdf
2. L. Kluvánek, I. Mišík, M. Švec: Matematika II, SVTL, Bratislava, 1961.
3. N. M. Matvejev: Zbierka príkladov z obyčajných diferenciálnych rovníc, ALFA, Bratislava,
4. Stuart, A.M.; Humphries, A.R. (1996), Dynamical Systems and Numerical Analysis, Cambridge University Press
5. Jacques M. Bahi and Christophe Guyeux. 2013. Discrete Dynamical Systems and Chaotic Machines: Theory and Applications. CRC Press, Inc., Boca Raton, FL, USA. 1970.
6. Kelley, C. T. (1995). Iterative Methods for Linear and Nonlinear Equations. SIAM.
7. Kelley, C.T. (1999) Iterative Methods for Optimization. In: Frontiers in Applied Mathematics, Vol. 18, SIAM

Course language:

Slovak

Notes:

Course assessment
Total number of assessed students: 29

A	B	C	D	E	FX
37.93	17.24	17.24	20.69	6.9	0.0

Provides: doc. Mgr. Jozef Kiseľák, PhD.

Date of last modification: 27.03.2024

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/VP/09	**Course name:** Educational Counselling

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 263

A	B	C	D	E	FX
76.81	14.45	5.7	2.28	0.76	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 30.01.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ ZSP/15	**Course name:** Essentials of Special 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: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 894

A	B	C	D	E	FX
51.23	23.83	12.19	7.05	4.81	0.89

Provides: PaedDr. Michal Novocký, PhD., doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ETO1/03	**Course name:** Ethology

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

Number of ECTS credits: 6

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

Course level: II.

Prerequisities:

Conditions for course completion:
Fulfilled conditions for the exercises
Successfully completed oral exam

Learning outcomes:
To teach the students to know and to be aware of the importance of the behavioural aspect in biological sciences

Brief outline of the course:
History and development of ethology. Ethological methods. The innate forms of behaviour. The simplest forms of learning – conditioning and instrumental learning. Higher form of learning. Social behaviour. Sexual behaviour. Play behaviour. Biological rhythms. Orientation in space and animal migrations. Communication systems of animals. Emotions. Aggression in animal and human behaviour. Abnormal forms of behaviour

Recommended literature:
Franck, D.: Verhaltensbiologie. Einfuhrung in die Ethologie. Georg Thieme-Verlag, 1993
Manning, A., Dawkins, M. S.: An introduction to animal behaviour. Cambridge University Press, 1992
DRICKMER, L.C., VESSEY, S.H., MEIKLE, D. Animal Behavior: mechanisms, ecology, evolution. 4th ed. Dubuque : Wm. C. Brown Publishers, 1996.
Internet

Course language:

Notes:

Course assessment
Total number of assessed students: 1146

A	B	C	D	E	FX
44.07	24.0	22.51	7.77	1.57	0.09

Provides: RNDr. Igor Majláth, PhD., RNDr. Natália Pipová, PhD.

Date of last modification: 22.09.2023

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ EB1/99	**Course name:** Evolutionary Biology

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: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
In the written exam, the student must demonstrate, in addition to knowledge in the field of evolutionary biology, knowledge of analytical and synthetic thinking when solving the answers to problem-formulated questions, while using knowledge from the entire bachelor's and master's studies of his field.

Learning outcomes:
Graduates of the course will gain an overview of evolutionary theories in the past and today, and based on the most modern scientific knowledge about macro- and microevolutionary processes in living nature at various levels of investigation and knowledge, they should be able to analytically solve scientific, but also philosophical questions in the field of evolutionary theory. He is able to argue and critically evaluate different views on evolution and apply his knowledge in different types of work tasks not only in an academic environment, but also in practice, e.g. in agriculture, ecology, environmental protection and the like.

Brief outline of the course:
1. Introduction to evolutionary biology. Historical development of ideas about the evolution of life. Evidence of the theory of evolution.
2. The origin and evolution of the first forms of life on Earth.
3. Theory of natural selection.
4. Molecular evolution I: Evolutionary processes at the gene level. Molecular evolution.
5. Molecular evolution II: Evolutionary processes at the level of species and populations.
6. Molecular evolution III: Evolution of genetic systems.
7. Reproductive strategies of plants, sexuality, asexuality and evolution.
8. Macroevolution and microevolution. Types of speciation. Evolutionary trends of green plants.
9. Extinction - a sad but natural part of evolution.
10. Overview of animal evolution.
11. Origin and development of man I.
12. Origin and development of man II.

Recommended literature:
Mayr, E.: Co je evoluce. Aktuální pohled na evoluční biologii. Academia Praha, 2009.
Flegr, J.: Evoluční biologie. Academia Praha 2005

Kejnovský, E., Hobza, R.: Evoluční genomika. (http://www.evolucnigenomika.cz/Skripta/Evolucni%20genomika%20skripta%202008.pdf) 2009
Futuyma, D.J.: Evolution. Sinauer Associates, Sunderland, 2005.
Briggs D., Walters S. M.: Proměnlivost a evoluce rostlin. Univerzita Palackého, Olomouc, 2001.
Dobzhansky T. et al.: Evolution. San Francisco 1977.
E.J.Larson : Evolúcia. Neobyčajná história jednej vedeckej teórie. Slovart, 2006.

Course language:

Notes:

Course assessment
Total number of assessed students: 700

A	B	C	D	E	FX
11.71	22.29	25.71	23.57	15.14	1.57

Provides: prof. RNDr. Pavol Mártonfi, PhD., prof. RNDr. Ľubomír Kováč, CSc., RNDr. Linda Petijová, PhD.

Date of last modification: 24.07.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ ZZP/12	**Course name:** Experiential Education

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 1 / 2 **Per study period:** 14 / 28
Course method: present

Number of ECTS credits: 4

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

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 486

A	B	C	D	E	FX
41.15	39.09	14.81	3.91	0.82	0.21

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Beáta Galajda, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/VMK/22	**Course name:** General Microbiology

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 1 / 2 **Per study period:** 14 / 28
Course method: present

Number of ECTS credits: 4

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Attendance of practicals (at least 90%), 2 written examinations during semester, final oral examination

Learning outcomes:
Students will obtain basic informations on viruses, prokaryotic and eukaryotic microorganisms, their cytology, physiology, genetics, ecology, classification, and importance . Information on basic methods for studying microorganisms will be provided.

Brief outline of the course:
Viruses, prokaryotic and eukaryotic microorganisms, their cytology, physiology, genetics, ecology, classification. The importance of microorganisms for humans and environment.

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 286

A	B	C	D	E	FX
63.64	21.33	10.84	3.5	0.7	0.0

Provides: doc. RNDr. Peter Pristaš, CSc., univerzitný profesor, RNDr. Mariana Kolesárová, PhD., RNDr. Ivana Slepáková, PhD.

Date of last modification: 16.12.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/ GEOB/22	**Course name:** Geology

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 3 / 2 **Per study period:** 42 / 28
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 351

A	B	C	D	E	FX
27.35	34.76	26.78	8.55	2.56	0.0

Provides: doc. Ing. Katarína Bónová, PhD., Mgr. Anton Uhrin

Date of last modification: 30.10.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/DGO/17	**Course name:** Geology and nature protection education

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: 3.

Course level: II.

Prerequisities: ÚBEV/DIB1/03

Conditions for course completion:
Active participation in exercises. The preparation and presentation of a self-planned school experiment and its didactic commentary at the end of the course are evaluated.

Learning outcomes:
Graduates of the course will gain practical experience with the implementation of school experiments and modeling of geological processes and phenomena. At the same time, they will learn the procedures of student research focused on the issue of environmental components and the need for nature protection using digital technologies.
Graduates will be able to choose a suitable form for the interpretation of geological and ecological curriculum and
methods

Brief outline of the course:
Components of the environment in SEP - Specifics of didactics of geology - Environmental education in biology as part of a cross-cutting theme - Elaboration of thematic units focused on the inanimate
nature and ecology in biology textbooks - Motivation of students to protect nature - Research topics for students' work - Modeling of phenomena and processes in the environment - Active involvement pupils in nature protection - Pupils' environmental projects - Educational walks and excursions

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 31

A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD., RNDr. Anna Mišianiková, PhD.

Date of last modification: 05.04.2023
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PsZ/15	**Course name:** Health Psychology

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., 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Assessment Conditions:
Active participation in seminars (25%) – a maximum of 2 absences is allowed.
Preparation and presentation of a seminar paper on a topic assigned during the seminar, within the agreed timeframe (25%).
Final paper and its ongoing presentation (50%).
Final Grading Scale:
A: 100 – 90%
B: 89 – 80%
C: 79 – 70%
D: 69 – 60%
E: 59 – 50%
FX: 49% or less – failed and the work must be revised.

Learning outcomes:
Knowledge: Students will gain basic knowledge of health psychology, including factors that promote health and those contributing to the development of illnesses. They will learn to formulate the basic theses of health psychology, explain its concepts, and understand the principles of the bio-psycho-social model of health. They will expand their understanding of the applications of health psychology in working with individuals and groups, including in school settings.
Skills: Students will develop the ability to prepare a basic preventive program focused on promoting a healthy lifestyle and managing stress. They will learn to implement acquired knowledge in practice, including working with children and youth in school environments.
Competencies: Graduates will be able to effectively participate in the creation and implementation of preventive programs that support health and mental well-being. They will know how to apply psychological knowledge when working with students in school settings, contributing to the improvement of both mental and physical health of individuals and society.

Brief outline of the course:
1. Health psychology. Definition of health. Bio-psycho-social model of health.
2. Mental health and quality of life, well being.
3. Physiological aspects of mental health, lifestyle

4. Stress. Coping, resilience.
5. Psychosomatic diseases, placebo.
6. Social support and its importance for health.
7. Burnout syndrome.
8. The meaning of life, faith.
9. Health-related behavior and prevention. Risky behavior, excessive use of the Internet and screens.
10. Socio-economic inequalities in health. Unemployment and health.

Recommended literature:

Křivohlavý, J. (2001). Psychologie zdraví. Praha: Portál.
Kebza, V. (2005). Psychosociální determinanty zdraví. Praha: Academia.
Křivohlavý, J. (2002). Psychologie nemoci. Praha: Grada.
Sarafino, E. P. (2007). Health psychology: Biopsychosocial interactions. John Wiley & Sons.
Taylor, E. (2006). Health psychology. Singapore: McGraw-Hill.
Vollrath, M. E. (2006). Handbook of personality and health. Chichester: John Wiley & Sons.
Marks, D. F., Murray, M., Estacio, E. V., & others. (2024). Health psychology: Theory, research and practice (7th ed.). SAGE Publications Ltd
Mareš, J., & Kebza, V. (2024). Psychologie zdraví. Grada.

Course language:

Notes:

Course assessment

Total number of assessed students: 180

A	B	C	D	E	FX
98.89	0.56	0.0	0.56	0.0	0.0

Provides: PhDr. Janka Liptáková, PhD.

Date of last modification: 04.02.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/SBD/08	**Course name:** History of Biology Seminar

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: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Introduction to history of science, especially biology

Brief outline of the course:
Introduction to history of biology (and related scientific areas) from ancient times, through middle ages to present.

Recommended literature:
Magner, L.N. (2002) A history of the life sciences. Marcel Dekker, Inc.

Course language:

Notes:

Course assessment
Total number of assessed students: 525

A	B	C	D	E	FX
97.71	2.1	0.19	0.0	0.0	0.0

Provides: prof. RNDr. Martin Bačkor, DrSc.

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: ÚBEV/ IMU1/03	**Course name:** Immunology

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: 3

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Recognition.
Oral examination.

Learning outcomes:
This course introduces the students to the basic concepts of immunology as well as highlights the role and importance of immunology in various human diseases. The aim of Immunology lessons is the presentation of the organization and function of the immune system, as well as the comprehension of complex molecular and cellular interactions during the induction of immune responses.

Brief outline of the course:
Basic immunology: Lymphatic System Anatomy, The Innate Immune System, The Induced Responses of Innate Immunity, The Adaptive Immune Response, Antigens and Antibodies, Antigen Recognition by B-cell and T-cell Receptors, Antigen Presentation to T-lymphocytes, Complement, Clinical immunology: Allergy and other Hypersensitivities, Autoimmunity and Transplantation, Tumor Immunology, Disorders of The Immune System.

Recommended literature:
Janeway Ch. A., Travers P., Walport M., Schlomchik M.: Immunobiology. Garland Science, 2004
Murphy, K. (2012): Jeneway's Immunobiology. 8th ed. Garland Science
Delves, P.J. et al. (2011): Roitt's essential immunology 12th ed Wiley-Blackwell

Course language:

Notes:

Course assessment
Total number of assessed students: 1117

A	B	C	D	E	FX
39.84	24.08	23.63	6.98	1.88	3.58

Provides: RNDr. Vlasta Demečková, PhD., univerzitná docentka

Date of last modification: 22.09.2023

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ VEK1/03	**Course name:** Introduction to Ecology
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: 3	
Recommended semester/trimester of the course: 1.	
Course level: I., II.	
Prerequisities:	
Conditions for course completion: oral examination	
Learning outcomes: Fundamental parameters and relations in ecological science. Abiotic, biotic and anthropogenic factors in air, aquatic and terrestrial/soil environment. Autecology, Demecology and Synecology. Ecosystem and Nature Protection.	
Brief outline of the course: Ecological factors and relations in environment (air, water, soil); influence of ecological factors on individuals (morphological adaptations, behavioral reactions); populations and communities; ecosystems (impact assessment); conservation and biodiversity. 1. Basic ecological terms. 2. Characterisation of the basic ecological factors (light, temperature, water). 3. Air environment (composition of atmosphere, physical and chemical factors, air pollutants, organisms and their adaptations in air environment). 4. Aquatic environment (water properties physical and chemical factors, gases in water, water pollutants, eutrophication and saprobity, aquatic organisms). 5. Soil environment (physical and chemical properties, soil profile, humus layer, soil pollutants, soil organisms and their adaptations). 6. Characterization of Populations, structure and ppuatin dynamics. 7.Biocenoses and biotops. 8. Qualitative and quantitative community characteristics. 9. Ecosystems. 10. Biomes and their characteristics, 11. Bidiversity-factors affecting biodiversity, Species-Area relationships. 12. Biodiversity protection.13. Biospheric cycles.	
Recommended literature: Begon, M., Harper, J. L., Townsend, C. L.: Ecology: individuals, populations, and communities. Blackwell Sci. Publ., 1990	
Course language:	
Notes:	

Course assessment Total number of assessed students: 1906					
A	B	C	D	E	FX
22.4	17.63	24.45	16.79	11.54	7.19
Provides: RNDr. Natália Raschmanová, PhD., univerzitná docentka					
Date of last modification: 16.03.2023					
Approved: prof. RNDr. Jozef Doboš, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/ZMPPV/25	**Course name:** Introduction to Research Methodoly in Education and Psychology

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: KPE/PDU/15

Conditions for course completion:
- active participation in seminars, presentation of assignments in groups, final exam

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

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

Recommended literature:
Bačíková, M., Janovská, A., Orosová, O. Základy metodológie pedagogicko-psychologického výskumu. 2.doplnené vydanie. Šafárik Press, 2019. dostupné online: https://unibook.upjs.sk/img/cms/2019/FF/zaklady-metodologie-ped-psych-vyskumu-2-vyd-web.pdf
Gavora, P.: Úvod do pedagogického výskumu. Bratislava, UK 1999.
Švec, Š. a kol.: Metodológia vied o výchove. Bratislava, Iris 1998. Turek, I.: K základom pedagogického výskumu. Prešov, KPÚ 1991.
Ferjenčík, J.: Úvod do metodológie psychologického výskumu. Praha, Portál 2000.
http://www.e-metodologia.fedu.uniba.sk/

Course language:

Notes:

Course assessment
Total number of assessed students: 915

A	B	C	D	E	FX
20.87	29.4	23.83	17.81	7.98	0.11

Provides: doc. Mgr. Mária Bačíková, PhD., PhDr. Anna Janovská, PhD., MSc. Michaela Škvarová

Date of last modification: 26.02.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ BIL/19	**Course name:** Lichen Biology

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
1. 100% participation of exercises.
2. learn how to work with the key for determining lichens, practical use
3. show and demonstrate the knowledge acquired during the exercises in TLC, HPLC, NMR
4. be able to assemble the equipment necessary for the isolation of substances (e.g. secondary metabolites)
5. demonstrate theoretical knowledge in the field of lichenology in the form of an oral exam

Learning outcomes:
After successfully completing the subject, the student should be able to use the key for identification of lower plants - lichens, understand and better understand the meaning of symbioses and thus specifically lichenism, understand the meaning of photobiont and mycobiont, be able to distinguish lichen from other lower plants in nature. The student should understand the significance of the secondary metabolites of lichens, how they are formed and how they are used in practice. As part of the practical part, methods for the isolation and identification of secondary metabolites such as spot-test, TLC, HPLC should be mastered. These methods are connected with basic knowledge of chemistry such as calculations, dilutions, preparation of solutions.

Brief outline of the course:
1. introduction to the study of lichenology and concepts
2. history from antiquity to the present
3. Symbiosis and lichenism
4. the role of photobiont and mycobiont in lichenism
5. Lichen thallus, types and subtypes
6. reproduction and reproduction
7. secondary metabolism of lichens and biosynthetic pathways
8. biological and ecological role of lichens and their secondary metabolites
9. extraction of secondary metabolites of lichens
10. Methods for identification and separation of secondary metabolites: TLC (thin layer chromatography), column chromatography
11. Methods for identification: HPLC (high-performance liquid chromatography)
12. Methods for identification: NMR (nuclear magnetic resonance)

13. presentation of results from the practical part

Recommended literature:
recommended literature:
Purvis: Lichens (2000)
Ahmadjian The lichens (1973)
Nash: Lichen Biology (2008)
Ranković: Lichen secondary metabolites (2019)

Course language:
slovak, english

Notes:

Course assessment
Total number of assessed students: 31

A	B	C	D	E	FX
93.55	3.23	3.23	0.0	0.0	0.0

Provides: doc. RNDr. Michal Goga, PhD., prof. RNDr. Martin Bačkor, DrSc., RNDr. Richard Frenák

Date of last modification: 31.07.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ LTM2/22	**Course name:** Logic and set theory

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Exam

Learning outcomes:
To obtain a basic knowledge on the mathematical notion of an infinity. Analysis of the notion of a proof.

Brief outline of the course:
Set as a mathematical formularization of an infinity. Properties of the set of reals. Relations and mappings.
Finite and countable sets. Cardinality of continuum. Elementary cardinal arithmetics.
Sentential calculus, an axiomatization. Completness Theorem. Methods of proofs. Language of predicate calculus, examples. Axiomatizations of predicate calculus and the notion of a proof. Methods of proofs in predicate calculus.

Recommended literature:
E. Mendelson, Introduction to Mathematical Logic, van Nostrand 1964.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 326

A	B	C	D	E	FX
14.72	19.33	20.55	16.26	27.61	1.53

Provides: RNDr. Jaroslav Šupina, PhD., prof. RNDr. Ondrej Hutník, PhD.

Date of last modification: 18.02.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/DPU/22	**Course name:** Magister thesis and its defense

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

Number of ECTS credits: 14

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
The diploma thesis is the result of the student's own work. It must not show elements of academic fraud and must meet the criteria of good research practice defined in the Rector's Decision no. 21/2021, which lays down the rules for assessing plagiarism at Pavol Jozef Šafárik University in Košice and its components. Fulfillment of the criteria is verified mainly in the process of supervision and in the process of thesis defense. Failure to do so is reason for disciplinary action.

Learning outcomes:
The diploma thesis demonstrates mastery of extended theory and professional terminology of the field of study, acquisition of knowledge, skills and competencies in accordance with the declared profile of the graduate of the study program, as well as the ability to apply them creatively in solving selected field problems. Student demonstrates the ability of independent professional work in terms of content, formal and ethical. Further details on the diploma thesis are determined by Directive no. 1/2011 on the basic requirements of final theses and the Study Regulations of UPJŠ in Košice.

Brief outline of the course:
1. Elaboration of the diploma thesis in accordance with the instructions of the supervisor.
2. Presentation of the results of the diploma thesis before the examination commission.
3. Answering questions related to the topic of the diploma thesis within the discussion.

Recommended literature:
The recommended literature is determined individually in accordance with the topic of the diploma thesis.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 24

A	B	C	D	E	FX
70.83	16.67	4.17	8.33	0.0	0.0

Provides:
Date of last modification: 19.04.2022
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ MZF/22	**Course name:** Mathematical foundations of financial literacy

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: II.

Prerequisities:

Conditions for course completion:
Improving knowledge and skills from the use of standard methods in solving mathematical problems in the topics: sequences, infinite series, financial mathematics. Developing the ability to analyze and explain various problem-solving strategies.
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Active participation in the exercises.
3. Elaboration of two tests.
Conditions for successful completion of the course:
A grade of A requires at least 90%, a grade of B requires at least 80%, a grade of C requires at least 70%, a grade of D requires at least 60%, and a grade of E requires at least 50%.

Learning outcomes:
The student is able to explain the basic concepts and methods of solving mathematical problems selected from various areas of school mathematics. The student is able to apply the acquired knowledge in finding and using various strategies for solving problems. The student will get acquainted with typical and more demanding tasks from school mathematics and with specific knowledge gaps and misconceptions that occur in their solution in the teaching of mathematics in primary and secondary school. The student will learn to use different models in solving problems in financial mathematics, which will support the development of his/her financial literacy.
The student is able to assess whether the student's non-standard solution is correct or not, and can explain his decision.

Brief outline of the course:
Sequences, sequence properties, limit of a sequence, convergence and divergence of sequences.
Arithmetic and geometric sequence and their use in solving problems.
Infinite series, convergence of infinite series, infinite geometric series.
Basic concepts, methods, models in financial mathematics: currency, exchange rate, insurance, taxes, interest, simple and compound interest, regular deposits and withdrawals, loan repayment, mortgages.

Recommended literature:
1. Kohanová, I., Slavičková, M.: Finančná matematika pre budúcich učiteľov matematiky.

Knižničné a edičné centrum FMFI UK, 2013.
2. Larson, L.C., Metódy riešenia matematických problémov, Bratislava, Alfa, 1990.
3. Lengyelfalusy, T., Kochol, M., Zábojníková, N.: Metódy riešenia matematických úloh 2. Žilinská univerzita v Žiline, 2009.
4. Učebnice a zbierky úloh z matematiky.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 172

A	B	C	D	E	FX
34.88	20.93	22.09	13.37	7.56	1.16

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 19.04.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ MRUc/22	**Course name:** Mathematical problem solving strategies III

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Assessment is given on the basis of the results of written examinations carried out during the semester and active participation in exercises.
Classification scale:
A: 91%-100%, B: 81%-90%, C: 71%-80%, D: 61%-70%, E: 51%-60%, FX: 0%-50%.

Learning outcomes:
Students become familiar with the tasks, methods of problem solving, solving strategies and with specific problems of teaching mathematics at primary and secondary schools. The student will
1. familiarise themselves with mathematical culture, ways of thinking, self-expression and putting forward arguments,
2. gain a deeper understanding of the base terminology of real analysis, their properties and interconnections,
3. be able to define and interpret key terms, prove their basic properties and relationships,
4. know how to solve tasks focused on utilising the aforementioned concepts and interpret the obtained results.

Brief outline of the course:
Basic knowledge of school mathematics, Euclid's algorithm, Diophantine equations, Number systems, Divisibility rules, Congruence classes of integers, Algebraic numbers, Motion problems, Working together word problems, Mixture Word Problems, Optimization word problems.

Recommended literature:
Hecht, T., Sklenáriková, Z., Metódy riešenia matematických úloh, Bratislava, SPN, 1992.
Hecht, T. a kol., Matematika pre 1.-4. ročník gymnázií a SOŠ, OrbisPictusIstropolitana, Bratislava 1999-2002.
Krantz, S.G., Techniques of Problem Solving, AMS, 1997.
Larson, L.C., Metódy riešenia matematických problémov, Bratislava, Alfa, 1990.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 174

A	B	C	D	E	FX
43.1	28.74	10.92	8.05	9.2	0.0

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 25.04.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ MST2/24	**Course name:** Mathematical statistics

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Total evaluation based on two written tests during the semester (2x40p) and the result of the written (30p) and oral part of the exam (30p).
At least 50% must be obtained from each part.
Final evaluation: ≥90% A; ≥80% B; ≥70% C; ≥60% D; ≥50% E; <50% FX.

Learning outcomes:
Student should obtain the knowledge about basic statistical methods and the ability to apply theoretical knowledge in practical problems solving.

Brief outline of the course:
1. Random vectors (definition, distributions, characteristics, joint and marginal distributions).
2. Covariance, correlation and regression.
3. Random sample, sampling distributions and characteristics.
4. Some important statistics and their distributions.
5. Point estimators and their properties.
6. Maximum likelihood method.
7. Interval estimates, confidence interval construction (2 weeks).
8. Testing of statistical hypothesis (critical region, level of significance and power of test, methods for searching optimal critical regions).
9. Some important parametric tests (2 weeks).
10. Some important nonparametric tests (2 weeks).

Recommended literature:
1. Skřivánková V.: Pravdepodobnosť v príkladoch, UPJŠ, Košice, 2006
2. Skřivánková V.-Hančová M.: Štatistika v príkladoch, UPJŠ, Košice, 2005
3. Casella, G., Berger, R., Statistical Inference, 2nd ed., Chapman and Hall/CRC, 2024
4. DeGroot, M. H., Schervish, M. J.: Probability and Statistics, 4th ed., Pearson, Boston, 2012
5. Anděl J.: Základy matematické statistiky, MatfyzPress, Praha, 2011(in Czech)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 105

A	B	C	D	E	FX
32.38	19.05	20.0	12.38	9.52	6.67

Provides: doc. RNDr. Martina Hančová, PhD.

Date of last modification: 21.11.2024

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ MDM/24	**Course name:** Mathematics and didactics of mathematics

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: II.

Prerequisities: ÚMV/DDMc/22

Conditions for course completion:
Appropriate knowledge and competencies from the profile courses of specialisation Teaching mathematics, demonstrating the ability to synthesise the acquired knowledge and procedures and apply them to problems concerning mathematics teaching and learning.

Learning outcomes:
Verification of acquired student competencies in accordance with the graduate profile.

Brief outline of the course:
1. Number sets
2. Sets and statements
3. Number theory
4. Powers, polynomials, fractional expressions
5. Equations and inequalities
6. Planimetry
7. Stereometry
8. Analytical geometry
9. Elementary functions, basic properties
10. Goniometry
11. Sequences and series
12. Combinatorics
13. Probability and statistics

Within each topic, the student has to demonstrate:
• An overview of and understanding of the key mathematical ideas that underpin secondary school mathematics.
• An understanding of the important principles that must be considered when teaching a given topic.
• The ability to apply knowledge in school mathematics, for example, to know what types of problems the pupil is expected to solve, what are the objectives of teaching, how the ideas about basic concepts from the topic are created, and so on.

Recommended literature:
Information sources recommended within individual profile courses.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 16

A	B	C	D	E	FX
18.75	31.25	31.25	6.25	12.5	0.0

Provides:

Date of last modification: 26.03.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MDT/19	**Course name:** Modern Didactical Technology

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Summary evaluation based on ongoing assessment:
1. Active participation at the seminars (in the contact or online form) with minimum 80% participation.
2. Practical ongoing assignments (10) and their defense. At least 50% must be obtained from each assignment elaborated according to assessment criteria.

Learning outcomes:
Student graduated from subject will be able:
- recognize current available digital tools and their parameters for educational activities,
- to use all types of actual digital tools in education of science or humanities,
- to design and realize educational activities by using the modern technologies.

Brief outline of the course:
00. Introduction - goals and didactic principles
01. Modern hybrid classroom in 21st century
02. Digital learning spaces in 21st century
03. Cloud repositories, services, modern web-browser
04. Cloud editors for notes, texts, spreadsheets and presentations
05. Digital text (scan, OCR, voice recognition, Kami pdf)
06. Digital image and audio (digital recording and editing)
07. Interactive E-voting and videoconference systems in education
08. Digital collaborative technologies (social e-reader, collaborative whiteboard)
09. Virtual and digitally based experiments, digital databases
10. Education video (digital recording and editing)
11. Smartphone and tablet in classic and blended education
12. Teaching tools and digital teacher's workspace

Recommended literature:
1. Kireš, M. et al.: Modern didactical technics in teacher practice (in Slovak), Košice: Elfa, 2010
2 . Redecker, C., & Punie, Y. (2017). European Framework for the Digital Competence of Educators: DigCompEdu. Luxembourg: Publications Office of the European Union.

3. C. R. Tucker, T. Wycoff, J. T. Green, Blended Learning in Action: A Practical Guide Toward Sustainable Change. Thousand Oaks: Corwin Press, 2016.
4. D. Bannister, Guidelines on Exploring and Adapting: LEARNING SPACES IN SCHOOLS. Brussels: European Schoolnet, 2017.
5. current information from web sites related to didactical technologies,
catalogues of teaching tools,
current articles about modern trends in science and humanities education.

Course language:
Slovak, English

Notes:

Course assessment
Total number of assessed students: 128

A	B	C	D	E	FX
58.59	25.78	11.72	2.34	1.56	0.0

Provides: doc. RNDr. Jozef Hanč, PhD.

Date of last modification: 07.07.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PDK/17	**Course name:** Pedagogical Communication

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: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 246

A	B	C	D	E	FX
77.24	20.73	2.03	0.0	0.0	0.0

Provides: Mgr. Beáta Galajda, PhD., Mgr. Katarína Petríková, PhD., Mgr. Zuzana Vagaská, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PDD/17	**Course name:** Pedagogical Diagnostics

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 136

A	B	C	D	E	FX
85.29	11.76	2.94	0.0	0.0	0.0

Provides: PaedDr. Michal Novocký, PhD., Mgr. Beáta Galajda, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PD/22	**Course name:** Pedagogy

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: II.

Prerequisities: KPE/PDU/15

Conditions for course completion:
Obtaining the required number of credits in the prescribed composition by the study plan.

Learning outcomes:
The student is able to demonstrate the acquired competencies in accordance with the profile of the graduate.

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

Recommended literature:
Čapek, R.: Moderní didaktika. Praha: Grada, 2016.

Dytrtová, R., Krhutová, M. Učitel. Příprava na profesi. Praha: Grada, 2009.
Kalhous, Z. – Obst, O. 2002. Školní didaktika. Praha: Portál, 2002.
Petlák, E.: Kapitoly zo súčasnej didaktiky. Bratislava: IRIS, 2005.
Prucha, J.: Moderní pedagogika. Praha: Portál, 2012.
Turek, I.: Didaktika. Bratislava: Wolters Kluwer, 2014.
Vališová, A., Kasíková, H.: Pedagogika pro učitele. Praha: Grada, 2010.
Zormanová, L.: Obecná didaktika. Praha: Grada, 2014.

Course language:

Notes:

Course assessment
Total number of assessed students: 41

A	B	C	D	E	FX
24.39	36.59	24.39	12.2	2.44	0.0

Provides:

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPE/ PPD/22	**Course name:** Pedagogy and Psychology
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: II.	
Prerequisities: KPE/PDU/15 and KPPaPZ/PPgU/15	
Conditions for course completion: Obtaining the required number of credits in the prescribed composition by the study plan.	
Learning outcomes: The student is able to demonstrate the acquired competencies in accordance with the profile of the graduate.	
Brief outline of the course: Pedagogy: 1. Pedagogy, basic pedagogical categories, system of pedagogical scientific disciplines. 2. Education, pages and functions of education, educational process, self-education.3. Factors of education, educated individual, pedagogue, pedagogical profession, professional competencies.4. School education, family education. 5. Educational goals, taxonomy, requirements, classification of educational goals.6. Methods of education. 7. Pedagogical principles. 8. School system of the Slovak Republic. 9. Didactics, basic questions of didactics, current starting points of didactics. 10. Objectives of the teaching process, the teacher's work with the objectives of teaching.11. Content of education, basic curriculum, extension curriculum, elements and components of curriculum. 12. Assessment in school education, types, functions and criteria of assessment.13. Pedagogical control, methods and forms of pedagogical control.14. Teacher's work planning, written preparation of the teacher for teaching.15. Teaching process, stages of the teaching process and their didactic functions.16. Organizational forms of teaching, lesson, stages, types of lessons.17. Teaching methods, classification, functions, selection of teaching methods. 18. Didactic principles of the teaching process. 19. Basic pedagogical documents, textbook, functions and structural components of the textbook.20. Current concepts of the teaching process. Psychology: 1.Psychology as a science, goals and subject of psychology in terms of influential psychological directions.2.Pedagogical psychology in teacher training, its subject, function.3.Psychology in school practice: professional forms of control and assistance, psychological examination, counseling process. Crisis intervention. Code of ethics.4.Psychology in school practice: approaches and models of prevention, prevention spectrum, protective and risk factors of risk behavior of schoolchildren in the context of the theory of triadic influence.5.Psychology in school practice: effective strategies for prevention of substance use.6.Psychology of education from from the point of view of psychodynamic approach (Psychoanalysis and Individual Psychology) .7.Psychology of education from the point of	

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

Recommended literature:

Pedagogika:
Čapek, R.: Moderní didaktika. Praha: Grada, 2016.
Dytrtová, R., Krhutová, M. Učitel. Příprava na profesi. Praha: Grada, 2009.
Kalhous, Z. – Obst, O. 2002. Školní didaktika. Praha: Portál, 2002.
Petlák, E.: Kapitoly zo súčasnej didaktiky. Bratislava: IRIS, 2005.
Prucha, J.: Moderní pedagogika. Praha: Portál, 2012.
Turek, I.: Didaktika. Bratislava: Wolters Kluwer, 2014.
Vališová, A., Kasíková, H.: Pedagogika pro učitele. Praha: Grada, 2010.
Zormanová, L.: Obecná didaktika. Praha: Grada, 2014.
Psychológia:
Mareš, J.: Pedagogická psychologie. Praha : Grada 2013.
Mareš, J., & ČÁP, J.: Psychologie pro učitele. Praha: Portál, 2001.
Džuka, J.: Základy pedagogickej psychológie. Prešov: UK 2003.
Orosová, O. a kol: Psychológia a pedagogická psychológia 1. Košice: UPJŠ, 2005.
Orosová, O. a kol.: Základy prevencie užívania drog a problematického používania internetu v školskej praxi. Košice: UPJŠ 2012.
Bačíková, M., Janovská, A. (2019) . Základy metodológie pedagogicko-psychologického výskumu. Sprievodca pre študentov učiteľstva. 2. rozšírené vydanie. Šafárik press, Košice.
Gavora, P. a kol. (2010). Elektronická učebnica pedagogického výskumu. Bratislava: Univerzita Komenského, 2010. dostupné online na www. e-metodologia. fedu. uniba. sk.
Vágnerová, M.: Základy psychológie. Praha : Karolinum 2005.
Vágnerová, M.: Vývojová psychológie. Praha : Karolinum 2005.
Vágnerová, M.: Škoní podadenská psychologie pro pedagogy. Praha : Karolinum 2005. Výrost, J., Slaměník, I.: Sociální psychologie. Praha : Grada 2008.
Výrost, J., Salměník, I.: Aplikovaná sociální psychológie I. Praha: Portál 1998.
Strana: 2
Fontana, D. : Psychologie ve školní praxi. Praha: Portál 1997.
Zelina, M.: Stratégie a metódy rozvoja osobnosti. Bratislava, Iris: 1996.
Křivohlavý, J.: Pozitívni psychologie. Praha: Portál 2004.
Křivohlavý, J.: Psychologie zdraví. Praha: Portál 2003.

Course language:

Notes:

Course assessment
Total number of assessed students: 222

A	B	C	D	E	FX
34.23	29.73	24.77	9.91	0.9	0.45

Provides:

Date of last modification: 03.03.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ FG1/03	**Course name:** Phytogeography

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 2 / 1 **Per study period:** 28 / 14
Course method: present

Number of ECTS credits: 5

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

Course level: I., II.

Prerequisities:

Conditions for course completion:
1. Lectures are optional, but highly recommended due to the presentation of otherwise difficult-to-access information and its synthesis.
2. In addition to the exam, the student must complete a mandatory 5-hour field trip focusing on the aspects that determine the spread of plants on Earth, solve practical tasks from the topic of the subject and prepare a semester presentation on the given topic, the presentation is defended at a scientific mini-conference.

Learning outcomes:
After completing the subject, the student is oriented in various aspects of phytogeographic issues and can apply the acquired knowledge both in basic research within chorology, historical and regional phytogeography, as well as in the evaluation of world biomes. The practical application of the subject is within the study of geographically and climatically conditioned changes in vegetation, in the assessment of the reduction of biodiversity and the extinction of the natural plant communities of the Earth, and the acquired knowledge can be used in work in environmental protection.

Brief outline of the course:
1. History of the subject. Plants and environment. Dynamics of the earth's surface.
2. Abiotic and biotic factors of the plant environment.
3. Chorology, range, areal disjunctions, relics, endemism, vicarism.
4. Elements of flora - older and newer approaches.
5. Main features of florogenesis. Paleozoic, Mesozoic, Cenozoic.
6. Main features of florogenesis. Cenozoic - Pleistocene, Holocene.
7. Basics of GIS (geographic information systems) and their use in botanical research.
8. Postglacial development of vegetation in Slovakia.
9. Current changes in terrestrial vegetation and their study, plant invasions.
10. Geography of vegetation: from tropical rainforests to tundra I.
11. Geography of vegetation: from tropical rainforests to tundra II.
12. Geographical origin of cultivated plants.
Seminars and exercises consist of a 5-hour excursion focusing on the connections and conditionality of plant distribution and indoor exercises focusing on an overview of phytogeographical literature, atlases of plant distribution and their importance, types of mapping, types of areas, practical

assessment of floristic elements and types of disjunctions , work with maps of specific taxa throughout Europe. Further: regional phytogeography of the Earth, historical overview of opinions on the phytogeographical (floristic) division of Slovakia. Plant phylogeography. Student presentations of final semester theses (phytogeographical mini-conference).

Recommended literature:

Hendrych R.: Fytogeografie. - SPN, Praha 1984.
Prach K., Štech M., Říha P.: Ekologie a rozšíření biomů na Zemi. - Scientia, Praha 2009.
Krippel E.: Postglaciálny vývoj vegetácie Slovenska. – Veda, vyd. SAV, Bratislava, 1986.
Dahl, E.: The Phytogeography of Northern Europe, - Cambridge University Press, 2007.
Brown J. H., Lomolino M. V.: Biogeography. - Sinauer Associates, Sunderland, 1998.
Myers A. A., Giller P. S.: Analytical Biogeography. - Chapman & Hall, 1990.
Various literature devoted to the geography of vegetation (mainly nature and travel), articles in National Geographic, Živa, Vesmír and other magazines.

Course language:

Notes:

Course assessment

Total number of assessed students: 404

A	B	C	D	E	FX
38.61	22.03	21.53	8.66	8.42	0.74

Provides: prof. RNDr. Pavol Mártonfi, PhD., doc. Mgr. Vladislav Kolarčik, PhD.

Date of last modification: 24.07.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PASZ/17	**Course name:** Problem and Aggressive Behaviour of Pupils. Etiology, Prevention and Intervention.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:
General principles of mental development as a basis for recognizing mental disorders in children and adolescents. Etiology of mental disorders and developmental disorders in children and adolescents. Definition of aggressive behavior. Concepts of aggression vs. aggressiveness. Theoretical approaches to aggression. Causes and factors of aggressive behavior. Violence at school and in the family. Bullying. Psychology of problem students. Problems resulting from disturbed behavior. Problems arising from group relationships. Adolescent lifestyle issues. Problems resulting from impaired emotional experience. Solving problematic and aggressive behavior in the school environment. School classroom management, group preventive and intervention work with the classroom. Crisis intervention. Work with parents of problem students. Principles of interviewing a parent. Cooperation with other experts. Prevention of aggressive and problematic behavior at school. Classroom and school climate, school prevention programs.
Viac o tomto zdrojovom texteNa získanie ďalších informácií o preklade sa vyžaduje zdrojový text
Odoslať spätnú väzbu
Bočné panely

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 158

A	B	C	D	E	FX
84.18	11.39	4.43	0.0	0.0	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 30.01.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/KPE/EPU/15	**Course name:** Professional Ethics for Teachers and School Counsellors

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Active participation in seminars (max. 1 absence) - 30p, 2. Preparation for the seminar - 40p, 3. Preparation (description and analysis) of the moral dilemma - 30p. By summing the points obtained during the semester, the student obtains the final evaluation according to the scale: A 87 - 100, B 77 - 86, C 69 - 76, D 61 - 68, E 56 - 60, FX 55 and less. Detailed information in the electronic board of the course in AIS2. The teaching of the subject will be realized by a combined method.

Learning outcomes:
Knowledge: Students will acquire basic knowledge of the principles of teacher ethics and the ethics of school counselors, understanding the theoretical foundations of moral issues and ethical codes related to these professions.
Skills: They will learn to analyze and solve moral problems in pedagogical practice, discuss ethical issues, and critically evaluate situations with a moral context.
Competencies: They will be able to apply ethical principles in practice, resolve moral dilemmas, and promote a value-oriented school culture.

Brief outline of the course:
Moral emotions (theories of emotion, the center of emotions in the brain, types of emotions and their manifestations)
Development of moral reasoning, cognitive approaches to moral reasoning and their comparison (Piaget, Kohlberg, Gilligan, Eisenberg, Selman, Lind),
Moral behavior (from the point of view of learning theories) and moral (vs. social and emotional) intelligence in the work of a teacher
Possibilities of examining moral behavior and judgment (socio-psychological research of conformity, obedience, aggression and psychodiagnostic approaches to the determination of moral judgment)
Morality and professional ethics in general (ethical principles in helping professions) and codes of ethics
Professional ethics of the teacher and educational counselor (terminology, concepts, main principles of teacher ethics) and teacher ethics codes
Moral dilemmas and ways of solving them, MD of teaching practice

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

Recommended literature:

Ráczová, B., & Babinčák, P. (2009). Základy psychológie morálky. Košice: Equilibria. ISBN 978-80-7097-786-6.
Gluchmanová, M. (2007). K niektorým terminologickým otázkam učiteľskej etiky. Pedagogická orientace, 17(2), 11–25. ISSN 1211-4669.
Malankievičová, S. (2008). Profesijná etika. Prešov: FF PU.
Miezgová, J., & Vargová, D. (2007). Etika. Bratislava: SPN Mladé letá.
Remišová, A. (2008). Dejiny etického myslenia v Európe a USA. Bratislava: Kalligram.
Zelina, M. (2010). Teória výchovy alebo hľadanie dobra. Bratislava: SPN.
Gluchmanová, M. (2009). Uplatnenie princípov a hodnôt etiky sociálnych dôsledkov v učiteľskej etike. Prešov: FF PU. ISBN 978-80-555-0042-3.
Campbell, E. (2003). The ethical teacher. Berkshire, England: Open University Press. ISBN 0-335-21219-0.
Miller, C. B. (2021). Moral psychology (Elements in Ethics). Cambridge University Press.
Tiberius, V. (2023). Moral psychology: A contemporary introduction (2nd ed.). Routledge.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 623

A	B	C	D	E	FX
97.59	2.09	0.32	0.0	0.0	0.0

Provides: Mgr. Lucia Barbierik, PhD.

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/PPgU/15	**Course name:** Psychology and Educational Psychology

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
Assessment: A maximum of 40 points can be earned during the semester (through two assignments and a written verification). Exam entry criteria: Active participation in exercises and a minimum of 30 points earned during the semester. Continuous assessment (40%) and written examination (60%). For more information and updates, refer to the electronic board of the course AIS2. Final evaluation: A 87 – 100 B 77 – 86 C 69 – 76 D 61 – 68 E 56 – 60 FX 55 and less Combined method. The information will be yearly specified on the electronic noticeboard of the course in AIS2, aleternatively in LMS UPJŠ or MS Teams environment.

Learning outcomes:
Students will be able to show understanding of the human behaviour in educational situations.
Students will be able to describe, explain and justify possible teachers‘ decisions by using psychological concepts, principles and theories.
Students will be able to apply the psychological findings in the field of education.
Students will be able to explain how adolescents learn and retain new information, to explain their behaviour in response to educational environment.
Students will be able to explain the desired data-based modification of adolescents‘ behaviour to bring an all-round development of his personality and school performance, to explain the desired data-based modification of the behaviour of adolescents with educational problems, with disadvantages.

Brief outline of the course:
Introduction: The content of the course is based on current knowledge of psychological disciplines, especially pedagogical and school psychology.
Teaching is realized by a combination of lectures with engaging narrative interpretation and seminars using interactive, experiential methods, discussion and open communication with mutual respect, support of independence, activity and motivation of students.
Syllabus: Goals and Subject of Psychology and Educational Psychology, the field and its transformations (Educational psychology and its changes over time, its mission, and possible personality transformations). School psychology, school psychologist. Professional forms of support in school practice. Psychological assessment. Counseling process. Crisis intervention. Effective strategies and programs for the prevention of risky behavior among schoolchildren.

Risk/protective factors of risky behavior. Implementation of psychological concepts of personality into school practice. Psychological and educational-psychological characteristics of learning (psychology of learning, types of learning, learning styles). Developmental characteristics and school (un)success (Cognitive, social, emotional, and personality development in childhood and adolescence, Psychological characteristics of adolescence and adulthood. Intelligence, memory, attention, and developmental characteristics of schoolchildren, and school (un)success). Social psychology of the school (teacher-student relationships, methods of understanding teacher-student interaction, the psychosocial climate of the school) and family (factors of family functionality, functional/problematic/dysfunctional/non-functional family, parenting styles). Main actors: Teacher (the teacher as a professional, their professional competence, teaching style, attitudes toward students, expectations of students, coping with stress, burnout syndrome), students (gifted and talented, school failure, successful/unsuccessful students, and failing students, student self-efficacy), school class (as a small social group, internal and external differentiation, bullying, and prevention), psychosocial climate of the school class.

Recommended literature:

Compulsory:
Lectures (Literary sources in published lectures)
Mareš, J.: Pedagogická psychologie. Praha : Grada 2013.
Recommended:
Mareš, J., & ČÁP, J.: Psychologie pro učitele. Praha: Portál, 2001.
Džuka, J.: Základy pedagogickej psychológie. Prešov: UK 2003.
Orosová, O. a kol: Psychológia a pedagogická psychológia 1. Košice: UPJŠ, 2005.
Orosová, O. a kol.: Základy prevencie užívania drog a problematického používania internetu v školskej praxi. Košice: UPJŠ 2012.
Vágnerová, M.: Základy psychológie. Praha : Karolinum 2005.
Vágnerová, M.: Vývojová psychológie. Praha : Karolinum 2005.
Vágnerová, M.: Škoní podadenská psychologie pro pedagogy. Praha : Karolinum 2005. Výrost, J., Slaměník, I.: Sociální psychologie. Praha : Grada 2008.
Výrost, J., Salměník, I.: Aplikovaná sociální psychológie I. Praha: Portál 1998.
Fontana, D. : Psychologie ve školní praxi. Praha: Portál 1997.
Zelina, M.: Stratégie a metódy rozvoja osobnosti. Bratislava, Iris: 1996.
Křivohlavý, J.: Pozitívni psychologie. Praha: Portál 2004.
Křivohlavý, J.: Psychologie zdraví. Praha: Portál 2003.
ELECTRONIC INFORMATION RESOURCES (UL UPJŠ)

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 1924

A	B	C	D	E	FX
10.76	21.0	23.75	22.25	20.01	2.23

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

Date of last modification: 09.09.2024

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/PTPN/17	**Course name:** Psychology of Creativity and Working with Gifted Students in Teacher Practice

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
1. active participation in lessons - 30p, 2. own output at the seminar - 40p, 3. seminar work - 30p. By summing the points obtained during the semester, the student obtains the final evaluation according to the given scale: A 87 - 100, B 77 - 86, C 69 - 76, D 61 - 68, E 56 - 60, FX 55 and less. Detailed information in the electronic board of the course in AIS2. The teaching of the subject will be realized by a combined method.

Learning outcomes:
The student understands the basic factors and process of creativity. The student is able to explain the specifics of working with the gifted. He knows the methods of identifying talent and also can apply methods to support creativity and the development of talent in the implementation of creative creativity in education.

Brief outline of the course:
Creativity
A brief history of creativity theories
Creativity, giftedness, and talent
Social, psychological, and biological factors of creativity
Cognitive processes in creativity
Creativity and cognitive style
Development of creativity
Specific aspects of working with gifted learners across developmental stages
Methods of identifying creativity and giftedness
Methods of fostering creativity and giftedness
Programs for the development of creativity and giftedness
Barriers and opportunities in working with gifted learners in school practice

Recommended literature:
DOČKAL, V. (2006): Inteligencia a tvorivosť, tvorivé nadanie od intelektovej schopnosti po štruktúru osobnosti. In: KUSÁ, D. a kol. EDS. (2006): Zjavná a skrytá tvorivosť. Bratislava: Slovak Academic Press
HŘÍBKOVÁ, L. (2009): Nadání a nadaní. Pedagogicko- psychologické přístupy, modely, výzkumy a jejich vztah ke školské praxi. Praha: Grada Publishing

DACEY, J.S.- LENNON, K.H. (2000): Kreativita. Praha: Grada
GROSS, M.U.M. (2009): Highly Gifted Young People: Development from Childhood to Adulthood. In: SHAVININA, L. (2009): International Handbook on Giftedness. Part one. Springer
KUSÁ, D. a kol. EDS. (2006): Zjavná a skrytá tvorivosť. Bratislava: Slovak Academic Press
KOLKOVÁ, S. (2000): Tvorivosť a jej rozvoj vo voľnočasových aktivitách detí (v školskom klube). Bratislava: Metodické centrum v Bratislave
LOKŠOVÁ, I., - LOKŠA, J.: (2003): Tvořivé vyučování. Praha: Grada
LAZNIBATOVÁ, J. (2004): Špecifiká vývinu a vzdelávania nadaných detí. In: Psychológia a patopsychológia dieťaťa, roč.39, č. 2-3
LAZNIBATOVÁ, J. (2001): Nadané dieťa, jeho vývin, vzdelávanie a podporovanie. Bratislava: Iris
MESÁROŠOVÁ, M. (1998): Nadané deti. Poznávanie a rozvíjanie ich osobnosti. Prešov: Manacon
SZOBIOVÁ, E. (2004): Tvorivosť – Od záhady k poznaniu. Bratislava: Stimul - Centrum informatiky a vzdelávania FIF UK
National and international scientific journlas

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 112

A	B	C	D	E	FX
99.11	0.89	0.0	0.0	0.0	0.0

Provides: PhDr. Janka Liptáková, PhD.

Date of last modification: 05.02.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KSSFaK/ ČGUAP/15	**Course name:** Reading Literacy in Educational Process
Course type, scope and the method: **Course type:** Lecture **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 48	

abs	n
100.0	0.0

Provides: doc. PaedDr. Ivica Hajdučeková, PhD.	
Date of last modification: 07.03.2025	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/VSV/26	**Course name:** Relationship and sexual education

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., 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 27.03.2026

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/RKS/14	**Course name:** Resolving Conflict Situations in Educational Practice
Course type, scope and the method: **Course type:** Lecture / Practice **Recommended course-load (hours):** **Per week:** 1 / 2 **Per study period:** 14 / 28 **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course: 1., 3.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 211	

abs	n
94.79	5.21

Provides: PhDr. Anna Janovská, PhD.
Date of last modification: 27.05.2024
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/MPPb/15	**Course name:** Scheduled practice teaching

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: Per study period: 36s
Course method: present

Number of ECTS credits: 1

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: KPE/MPPa/15 and KPE/PDU/15 and (KPPaPZ/PaSPP/09 or KPPaPZ/PPgU/15)

Conditions for course completion:
During the practice student observe 11 biology lessons and leads one own biology hour under the guidance of a teacher trainer.
Confirmation of classroom visits.
Written assessment from the teacher trainer.

Learning outcomes:
Students acquire knowledge by observing the practical application of teaching skills for teaching the subject of biology and getting to know the organization of school work. Introduction into practical implementation of biology lesson.

Brief outline of the course:
Students observe the process of teaching biology at primary and secondary school and analyzed it with teacher trainer. Practice takes place continuously during the course of the semester. Practice is scheduled once a week at the time of first to third lesson in schools.
The first two hours observation/teaching, the third hour analysing process under the guidance of a teacher trainer.

Recommended literature:
Current biology textbooks for primary and secondary schools in Slovakia.

Course language:

Notes:

Course assessment
Total number of assessed students: 590

abs	n
99.66	0.34

Provides:

Date of last modification: 16.12.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ VPPb/15	**Course name:** Scheduled practice teaching
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 36s **Course method:** present	
Number of ECTS credits: 1	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities: KPE/MPPa/15 and KPE/PDU/15 and (KPPaPZ/PaSPP/09 or KPPaPZ/PPgU/15)	
Conditions for course completion: Teaching of a specified number of hours and visitations of specified number of classes (1 teaching and 11 visitation of classes). Submission of written assignments (reflection on teaching practice, statement of teaching hours and classes visitations, selected lesson plans).	
Learning outcomes: Application of the knowledge acquired in didactic courses focused on teaching mathematics in pedagogical practice. Development of the student's self-reflection within the framework of the analysis of the lessons taught by the student. Identification of the student's weaknesses in order to shift his/her knowledge. To acquaint students with the atmosphere and the organization of school.	
Brief outline of the course: Visitations of classes in selected lessons Analysis of lessons Lesson plans preparation Classes managed according to prepared lesson plan Reflection on realized classes	
Recommended literature: Mathematics curricula and textbooks for middle and secondary schools Hejný, M.: Teória vyučovania matematiky 2. Bratislava : SPN 1989 M. Hejný, J. Novotná, N. Stehlíková: Dvacet pět kapitol z didaktiky matematiky 2, Univerzita Karlova v Praze - Pedagogická fakulta, Praha, 2004	
Course language: Slovak	
Notes:	

Course assessment Total number of assessed students: 142	
abs	n
100.0	0.0
Provides: doc. RNDr. Ingrid Semanišinová, PhD.	
Date of last modification: 24.08.2022	
Approved: prof. RNDr. Jozef Doboš, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SHMa/22	**Course name:** Seminar on history of mathematics I

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity.
3. Homework and tests.
4. Seminar work and its presentation at the seminar – poster from history of mathematics on the selected topic
Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to students who score at least 50% on homework assignments and tests. Additional points can be achieved for the presentation of a seminar paper.

Learning outcomes:
The student knows the main stages of the development of mathematics, the history of the development of the language of mathematics, the development of selected concepts and some mathematical disciplines. The student understands the parallels between the phylogeny and ontogeny of mathematical thinking.

Brief outline of the course:
Prehistory, ontogeny and phylogeny.
Mathematics in ancient cultures: Egypt, Mesopotamia, China, India.
Mathematics in ancient Greece: Origins of Greek natural philosophy and mathematics. The discovery of incommensurability and its consequences (Pythagoras and his school). Classical problems of Greek mathematics. Problems with infinity (Zeno). Eudoxus' method. Plato, Aristotle, Euclid and his Foundations. Archimedes of Syracuse, Eratosthenes, Apollónios, Claudios Ptolemy, Diophantos.
Arabic mathematics and its relation to medieval European mathematics.
The origins of modern mathematics. The search for the roots of polynomial equations. The origins of analytic geometry. Probability. Infinitesimal calculus. Number theory. Non-Euclidean geometry. The origin of set theory.
Development of mathematical symbolism.

Selected topics in school mathematics from the perspective of the history of mathematics.

Recommended literature:

Burton, D. M.: The History of Mathematics: An Introduction. McGraw−Hill, 2007.
Devlin, K.: Jazyk matematiky. Dokořán, 2002. (in czech)
Čižmár, J . Dejiny matematiky (Od najstarších čias po takmer súčasnosť) Perfekt, 2017. (in slovak)
Mareš , M . Příběhy matematiky. Pistorius, 2011. (in czech)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 194

A	B	C	D	E	FX
69.07	15.98	7.22	3.61	2.06	2.06

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 24.08.2022

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ SHMb/22	**Course name:** Seminar on history of mathematics II

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: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity.
3. Homeworks.
4. Seminar work on the selected topic and its presentation at the seminar
Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to students who score at least 50% on homework assignments and tests. Additional points can be achieved for the presentation of a seminar paper.

Learning outcomes:
Students will demonstrate an understanding of the history of the development of some mathematical disciplines and selected concepts. They will demonstrate this understanding by scoring at least 50% on previous topics and homework assignments.

Brief outline of the course:
1. Algebra and geometry of 16th and 17th century - Tartaglia, Vieta, Descartes
2. Beginning of modern number theory - Mersenne, Fermat
3. Development of infinitesimals -- Newton, Leibniz, Bernoulliovci
4. Complex and hypercomplex numbers -- Hamilton, Cayley, Clifford
5. Combinatory and probability - Pascal, Fermat
6. Algebra in the 18th and 19th century - Gauss, Abel, Galois
7. Non-Euclidean geometries - Gauss, Lobačevskij, Bolyai
8. Mathematical analysis in the 19th century - Cauchy, Bolzano, Weierstrass
9. Set theory - Bolzano, Cantor, Zermelo, Franklin
10. Mathematics in the beginning of 20th century - Peano, Hilbert, Gödel

Recommended literature:
Berlinghoff, W.P., Gouvea, F.Q.: Math through the Ages, MAA Press, 2015.
Čižmár, J . Dejiny matematiky (Od najstarších čias po takmer súčasnosť) Perfekt, 2017.
Hairer, E., Wanner, G.: Analysis by its History, Springer, 2008.

Mareš , M . Příběhy matematiky. Pistorius, 2011.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 46

A	B	C	D	E	FX
60.87	23.91	13.04	2.17	0.0	0.0

Provides: prof. RNDr. Ondrej Hutník, PhD.

Date of last modification: 21.09.2023

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KSSFaK/VSJU/15	**Course name:** Slovak Language for Teachers

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: 2

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

Course level: II.

Prerequisities:

Conditions for course completion:
Conditions for successful completion of the course:
a) regular active participation in seminars,
b) preparation of basic literature and content of lectures,
c) elaboration of seminar work / creative task,
d) successful completion of the final test.
Conditions for obtaining the final evaluation: a) seminar work / creative task b) final test (min. 56%) Final evaluation: 100,00 - 92,00% A 91,99 - 83,00% B 82,99 - 74,00 % C 73.99 - 65.00% D 64.99 - 56.00% E 55.99% and less FX
Prerequisites for successful completion of the course are annually updated on the electronic bulletin board in AIS2.

Learning outcomes:
During the final evaluation, the student demonstrates adequate mastery of the content standard of the course, which is defined by the required literature and seminar content, and demonstrates mastery of the performance standard, within which the student is able to practically apply the standard of standard Slovak in oral and written communications. manuals, gain skill in the bibliographic and citation standard. The graduate of the course normatively masters written communication on the basis of current orthographic rules and knows the basic characteristics of the means of expression of the text and functional language style.

Brief outline of the course:
Characteristics of basic terms of general linguistics (language – speech, language functions, the sign character of language, language levels, content and form in language, individual and general aspect of language units) on interdisciplinary background and with the application to Slovak as a national language. Language standard, codification, usus. Basic codification manuals. Application of orthographic rules in practical documents. Sound culture, pronunciation styles. Orthoepic phenomena in vowels and consonants. Application of rhythmic law and its exceptions. Assimilation and its specific features in Slovak. Style, stylization – methods and demonstration of structure of text components.

Recommended literature:
BÓNOVÁ, I. - JASINSKÁ, L.: Jazyková kultúra nielen pre lingvistov. Košice: UPJŠ 2019. 100 s.

FINDRA, J.: Štylistika slovenčiny. Martin : Osveta, 2004.
FINDRA, J.: Štylistika slovenčiny v cvičeniach. Martin : Osveta, 2005.
KRÁĽ, Á.: Pravidlá slovenskej výslovnosti. Martin: Matica slovenská 2006. 423 s.
Krátky slovník slovenského jazyka. Martin: Matica slovenská 2020.
SABOL, J.- SLANČOVÁ, D. - SOKOLOVÁ, M.: Kultúra hovoreného slova. Prešov, FF UPJŠ 1989.
Pravidlá slovenského pravopisu. Bratislava: Veda 2000 (2013).
SABOL, J. – BÓNOVÁ, I. – SOKOLOVÁ, M.: Kultúra hovoreného prejavu. Prešov: FF PU 2006.
SLANČOVÁ, D.: Praktická štylistika. 2., upravené a doplnené vydanie. Prešov: Slovacontact 1996. 178 s. ISBN 80-901417-9-X.
Slovník súčasného slovenského jazyka. Bratislava: Veda 2006.
Slovník súčasného slovenského jazyka. Bratislava: Veda 2011.
Slovník súčasného slovenského jazyka. Bratislava: Veda 2015.

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 170

A	B	C	D	E	FX
15.29	22.35	31.18	14.71	14.12	2.35

Provides: PhDr. Iveta Bónová, PhD., univerzitná docentka, PhDr. Lucia Jasinská, PhD.

Date of last modification: 02.10.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ SVK/10	**Course name:** Students scientific 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: 4

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Individual scientific work of students. Publishing of obtained results in a written form and as a public presentation.

Brief outline of the course:

Recommended literature:
With respect to the research problematics (article in journals, books).

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 101

A	B	C	D	E	FX
99.01	0.99	0.0	0.0	0.0	0.0

Provides:

Date of last modification: 01.12.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPE/ MPPa/15	**Course name:** Supervised Teaching Practice
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 36s **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 968

abs	n
99.48	0.52

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Vagaská, PhD., Mgr. Lucia Barbierik, PhD.
Date of last modification: 22.09.2025
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PDU/15	**Course name:** Teaching Methodology and Pedagogy

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1047

A	B	C	D	E	FX
25.5	27.98	25.21	14.42	6.3	0.57

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Vagaská, PhD., Mgr. Mária Baluchová

Date of last modification: 22.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/UPR/15	**Course name:** The Art of Aiding by Verbal Exchange

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Active participation in seminars
2. Elaboration and presentation of PPT presentation on the assigned topic. Maximum number of points 20; minimum number of points 11.
3. Final test in the range of 20 questions from selected chapters and lectures. Maximum number of points 20; minimum number of points 11. The final evaluation (mark) is the sum of points for the presentation and the test. A 40b - 37b B 36b - 33b C 32b - 29b D 28b - 25b E 24b - 21b FX 20b - 0b
The evaluation of the course and its subsequent completion will be based on clearly and objectively set requirements, which will be set in advance and will not change. The aim of the assessment is to ensure an objective and fair mapping of the student's knowledge while adhering to all ethical and moral standards. There is no tolerance for students' fraudulent behavior, whether in the teaching process or in the assessment process.

Learning outcomes:
Provide students with basic information about a systemic approach to helping. Train interviewing, clarify orders. Reflect on help options.
The student is able to demonstrate an understanding of the theoretical principles of conducting a helping conversation.
The student is able to describe, explain and evaluate in what context to use which of the selected techniques to help the interview with the individual.
The student is able to use basic selected techniques when working with an individual in the interview process.
The method of teaching the subject will be oriented to the student. Lecturers will be interested in students' needs, expectations and opinions so as to encourage them to think critically by expressing respect and feedback on their opinions and needs.
The content of the curriculum will be based on primary and high-quality sources that will reflect the topicality of the topics so as to ensure the connection of the curriculum with other subjects and also the connection of the curriculum with practice. Students will be expected to take an active approach in lectures and seminars with an emphasis on their independence and responsibility.

Brief outline of the course:

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

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 245

A	B	C	D	E	FX
91.43	3.67	3.67	0.82	0.41	0.0

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 12.09.2025

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ ZOG1/03	**Course name:** Zoogeography

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

Number of ECTS credits: 6

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

Course level: I., II.

Prerequisities:

Conditions for course completion:
Active participation in seminars.
Preparation of oral presentation to a selected topic.
Completion of two semestral written examinations.
Oral examination.

Learning outcomes:
The main goal of the subject is to get knowledge on the basic reasons of recent distribution of the animals on the Earth, zoogeographic regionalization of the Earth´s surface and human influence on the faunal distribution in the history.

Brief outline of the course:
This course will review our current understanding of the patterns of animal distribution and the processes that influence distributions of species and their attributes. Zoogeography will integrate information on the historical and current ecology, genetics, and physiology of animals and their interaction with environmental processes (continental drift, climate) in regulating geographic distributions. The course will emphasize descriptive and analytical approaches useful in hypothesis testing in zoogeography and will illustrate applied aspects of zoogeography (e.g. refuge design in conservation).

Recommended literature:
Buchar, J., 1983: Zoogeografie. SPN Praha
Darlington, P.J., 1998: Zoogeography: The geographical distribution of animals. Krieger, USA
Lomolino M.V., Brown J.H., Riddle B. R., 2005: Biogeography. Sinauer Associates, 1-845
Plesník, P., Zatkalík, F., 1996: Biogeografia. Vysokoškolské skriptá, PríFUK Bratislava

Course language:

Notes:

Course assessment
Total number of assessed students: 1059

A	B	C	D	E	FX
25.31	23.23	23.61	18.41	7.74	1.7

Provides: prof. RNDr. Ľubomír Kováč, CSc., RNDr. Natália Raschmanová, PhD., univerzitná docentka

Date of last modification: 10.12.2021

Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ SPPI/25	**Course name:** Školské pokusy a pozorovania I
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
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: PaedDr. Andrea Lešková, PhD.
Date of last modification: 05.03.2025
Approved: prof. RNDr. Jozef Doboš, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ SPPII/25	**Course name:** Školské pokusy a pozorovania II
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: 3.	
Course level: II.	
Prerequisities: ÚBEV/DIB1/03	
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: PaedDr. Andrea Lešková, PhD.	
Date of last modification: 05.03.2025	
Approved: prof. RNDr. Jozef Doboš, CSc.	