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: 28

A	B	C	D	E	FX
60.71	21.43	17.86	0.0	0.0	0.0

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

Date of last modification: 16.12.2021
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ AMCU/22	**Course name:** Activating teaching methods in chemistry

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.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Participations in seminars (also applies to the online form of teaching). Students are required to participate in seminars. The students can excuse themself (incapacity for work, family reasons, etc.) for a maximum of two seminars during the semester without the need for replacement. In the case of a longer-term justified absence (for example due to incapacity for work), the student will be assigned an alternative form of completing the missed curriculum.
2. Active participation in class. Seminars are conducted in a form in which students are active - students present assignments, which include worksheets. The student is obliged to prepare 5 written assignments. The assignments will be available through the e-learning portal LMS Moodle (direct link to the website: https://lms.upjs.sk/) in the course Activating teaching methods in chemistry.
3. The content of the seminars also includes assignment in a form of seminar work, which the student submits to the course. The seminar paper will focus on: Suggestion of an activity on a selected topic for active inquiry (inquiry-based learning, project-based learning, use of digital technologies) with a focus on the development of specific scientific and digital skills and skills related to learning. The design of the activity will also include the design of summative and formative assessment tools to verify understanding and skills in the topic.
4. The final presentation of the seminar work. Assessment of the presentation skills. (0 - 20 points). The final presentation will form a comprehensive output of acquired knowledge and skills.
The final evaluation in the course consists of the sum of points obtained for:
1. Assignments during the semester 5x (0 - 50 points)
2. Seminar work (0 - 25 points)
3. Final presentation of the seminar work (0 - 25 points)
Conditions for successful completion of the course: In order to obtain an A rating, it is necessary to obtain at least 85 points in total, to obtain an B rating at least 75 points, to obtain a C rating at least 65 points, to obtain a D rating at least 55 points and to obtain an E rating at least 45 points.

Learning outcomes:
Student will acquire an overview of selected activating methods in teaching chemistry from a theoretical and practical point of view. Can design project work, include it in teaching and evaluate its outcomes. Will be able to design inquiry-based activities, include them in teaching and verify their effectiveness based on formative assessment tools. Will gain knowledge about the requirements of assessment in the 21st century with a focus on the development and validation of

conceptual understanding and skills through the tools of summative and formative assessment. Will learn how to create tasks at different levels of Bloom's taxonomy. Will get acquainted with selected cognitive and metacognitive tools of formative assessment as well as with specific examples. Will know and practically use applications usable for online assessment purposes (Google Forms, Socrative, Kahoot, etc.). Will acquire skills for the implementation of teaching with computer-based experiments in terms of work procedures, working with technology and organization of work.

Brief outline of the course:

1. Characteristics of activating methods in chemistry teaching.
2. Project-based method in chemistry teaching, characteristics and examples of project work.
3. Inquiry-based methods in chemistry teaching, examples of inquiry-based activities.
4. Computer-based chemical experiments.
5. Requirements for assessment in the 21st century. Assessment in chemistry teaching I - Summative assessment. Bloom's taxonomy. Creation of tasks and didactic tests using digital tools for summative assessment (Google Forms, Socrative, Kahoot) - practical examples.
6. Assessment in chemistry teaching - Formative assessment. Applications usable for online assessment purposes (Google Forms, Socrative, Kahoot, etc.). Tasks of international PISA measurements - examples of tasks, their characteristics. Complex tasks in teaching chemistry.
7. Concept maps in chemistry.

Recommended literature:

1. GANAJOVÁ, M. KALAFUTOVÁ, J. a kol.: Projektové vyučovanie v chémii. Didaktická príručka pre učiteľov základných škôl. Bratislava: Štátny pedagogický ústav, 2010. 144 s. ISBN 978-80-8118-058-3.
2. Digitálna knižnica pre projektové vyučovanie v chémii. http://kekule.science.upjs.sk/chemia/digitalna_kniznica/Index.htm
3. KIREŠ, M., JEŠKOVÁ, Z., GANAJOVÁ, M., KIMÁKOVÁ, K.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť A. Bratislava: ŠPÚ, 2016. ISBN 978-80-8118-155-9. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/01cast_a_web.pdf
4. GANAJOVÁ, M., KRISTOFOVÁ, M.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť B. Ukážky vytvorených metodických a pracovných materiálov z predmetu Chémia. Bratislava: ŠPÚ, 2016.
https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/04cast_b_chemia_web.pdf
5. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre základné školy. Doplnené vydanie. Bratislava: CVTI SR, 2021. ISBN 978-80-8240-007-9.
https://vzdelavanie.itakademia.sk/vystupy/zim-che-zs.pdf
6. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre stredné školy. Doplnené vydanie. Bratislava: CVTI Bratislava: CVTI SR, 2021. ISBN 978-80-8240-008-6.
https://vzdelavanie.itakademia.sk/vystupy/zim-che-ss.pdf
7. GANAJOVÁ, M.: Metodika tvorby učebných úloh a didaktických testov pre chémiu. Košice: UPJŠ, 2015. ISBN 978-80-8152-237-6. https://unibook.upjs.sk/sk/prirodovedecka-fakulta/445-metodika-tvorby-ucebnych-uloh-a-didaktickych-testov-pre-chemiu
8. GANAJOVÁ a kol.: Rozvíjanie kompetencií žiakov prostredníctvom učebných úloh z chémie. Bratislava: ŠPÚ, 2018. ISBN 978-80-8118-215-0. https://www.statpedu.sk/files/sk/publikacna-cinnost/publikacie/spu-chemia-2018-web.pdf
9. GANAJOVÁ, M., BRESTENSKÁ, B., GUNIŠ, J., JEŠKOVÁ, Z., KIREŠ, M., LEŠKOVÁ, A., LUKÁČ, S., OROSOVÁ, R., SOTÁKOVÁ, I., SZARKA, K., ŠNAJDER, Ľ.: Formatívne

hodnotenie vo výučbe prírodných vied, matematiky a informatiky. 1. vyd. UPJŠ v Košiciach, 2021, 450 s. ISBN 978-80-8152-973-3.
10. Inovovaný štátny vzdelávací program pre 2. stupeň ZŠ. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_nsv_2014.pdf
11. Inovovaný štátny vzdelávací program pre gymnázia so štvorročným a päťročným vzdelávacím programom. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_g_4_5_r.pdf
12. Školský informačný systém. Chémia. http://kekule.science.upjs.sk/chemia/index.htm
13. E – learning kurz: Aktivizujúce metódy výučby chémie, https://lms.upjs.sk/

Course language:

Notes:

Course assessment
Total number of assessed students: 42

A	B	C	D	E	FX
95.24	4.76	0.0	0.0	0.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.

Date of last modification: 08.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ZTOX/22	**Course name:** Basic Toxicology

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.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Goal of the course is to provide the students with a knowledge of types of toxic substances and their metabolism, safe and handling of toxic substances.

Brief outline of the course:
Historical aspects, types of toxic substances, types of exposure, dose-response relationship. Disposition of toxic compounds (absorption, distribution, excretion of toxic compounds). Metabolism of toxic compounds. Drugs as toxic substances, food additives and contaminants, environmental pollutans. Statement of chemistry laboratory policy. Safe and handling of toxic substances.

Recommended literature:
G. F. Fuhrman: Allgemeine Toxikologie fuer Chemiker, Teubner Verlag, Stutgart 1984.
V. E. Forbes, T. L. Forbe: Ecotoxicology in Theory and Practice, Chapman&Hall, London 1994.
J. A. Timbrell: Introduction to Toxicology, Taylor&Francis, London 1994.
J.H.Duffus, H.G.J. Worth: Fundamental toxicology, RSC Publishing, Cambridge, 2006.

Course language:

Notes:

Course assessment
Total number of assessed students: 27

A	B	C	D	E	FX
18.52	22.22	33.33	11.11	14.81	0.0

Provides: RNDr. Miroslava Matiková Maľarová, PhD.

Date of last modification: 21.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 24

A	B	C	D	E	FX
33.33	37.5	20.83	8.33	0.0	0.0

Provides:

Date of last modification: 13.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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:
The student will acquire the latest information about bullying in schools and its consequences, about solving problematic situations associated with bullying as well as about possible ways of prevention. Within the seminars, students will develop professional skills through the implementation of prevention activities. At the same time, their sensitivity to the issue of bullying and their willingness to actively address it during their pedagogical practice will increase.

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

Course language:

Notes:

Course assessment
Total number of assessed students: 214

A	B	C	D	E	FX
85.51	13.08	0.93	0.47	0.0	0.0

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ ZCVU/22	**Course name:** Chemical Engineering

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., 4.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:
General and Inorganic Engineering; Mineral raw materials; Raw materials processing, transport and holding; Chemical reactors; Chemical metallurgy – Fe, Al, Cu working; Inorganic acids manufacture (H2SO4, HNO3, HCl, HF, H3PO4); Industrial electrochemistry; Industrial fertilizers; Silicate industry – cement manufacture, ceramics; Petrochemistry

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 9

A	B	C	D	E	FX
88.89	11.11	0.0	0.0	0.0	0.0

Provides: prof. RNDr. Zuzana Vargová, Ph.D.

Date of last modification: 17.02.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/CHE2/22	**Course name:** Chemical Excursion

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

Number of ECTS credits: 4

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: 12

A	B	C	D	E	FX
83.33	16.67	0.0	0.0	0.0	0.0

Provides: prof. RNDr. Zuzana Vargová, Ph.D., RNDr. Martin Vavra, PhD.

Date of last modification: 08.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/MSSU1/22	**Course name:** Chemistry and Didactics of Chemistry 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:

Course level: II.

Prerequisities: (ÚCHV/SPC1a/22 or ÚCHV/SPC1a/03) and (ÚCHV/SPC1b/22 or ÚCHV/SPC1b/03) and (ÚCHV/DCH1/22 or ÚCHV/DCH1/15) and (ÚCHV/DCH2/22 or ÚCHV/DCH2/15) and ÚCHV/VKVACH/22

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 12

A	B	C	D	E	FX
83.33	8.33	8.33	0.0	0.0	0.0

Provides:

Date of last modification: 27.04.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/MSSU2/22	**Course name:** Chemistry and Didactics of Chemistry 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: 2

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: (ÚCHV/SPC1a/22 or ÚCHV/SPC1a/03) and (ÚCHV/SPC1b/22 or ÚCHV/SPC1b/03) and (ÚCHV/DCH1/22 or ÚCHV/DCH1/15) and (ÚCHV/DCH2/22 or ÚCHV/DCH2/15) and ÚCHV/VKOCHB/22

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:

Date of last modification: 27.04.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 968

A	B	C	D	E	FX
50.21	29.13	14.98	3.62	1.55	0.52

Provides: doc. Mgr. Alexander Onufrák, PhD.

Date of last modification: 29.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 572

A	B	C	D	E	FX
53.85	34.79	8.39	1.57	0.52	0.87

Provides: doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 800

A	B	C	D	E	FX
73.63	16.0	6.5	2.75	0.5	0.63

Provides: prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 14.12.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/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: ÚCHV/MPPb/15 and ÚCHV/DCH1/22 or ÚCHV/DCH1/15

Conditions for course completion:
1. Compulsory attendance during the organisational and informational seminar.
2. Compulsory attendance: sitting in on classes, analytical classes at training schools.
3. Sitting in on classes and analytical classes with supervising teachers – 6x.
4. Teaching classes and analytical classes under supervision – 18x.
5. Submitted Continued practice teaching (CPT) I documentation.
(Sitting-in records, Written class preparations, List of sitting-in sessions and trainee's performance during CPT I, CPT I report, Assessment of the trainee's pedagogical performance during CPT).

Learning outcomes:
The student can plan lessons and teach them. Present their own psychodidactic and subject-specific didactic concepts of teaching in the environment of a real school classroom. Apply the didactic skills developed during the previous observation of teaching in practice to teach chemistry. Evaluate one's own lesson project and professional competence level (areas: student, educational process, professional development) in terms of pedagogic theory and assessment provided by the supervising teacher.

Brief outline of the course:
Observation and analysis of chemistry lessons and teaching under the supervision of the supervising teacher. Written class preparation and teaching, active participation in extracurricular activities. Didactic Continued practice teaching I analysis.

Recommended literature:
Current chemistry textbooks for primary and secondary schools in the Slovak Republic.

Course language:

Notes:

Course assessment
Total number of assessed students: 176

abs	n
100.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.
Date of last modification: 26.10.2021
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 301

abs	n
100.0	0.0

Provides:
Date of last modification: 16.12.2021
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 276

abs	n
100.0	0.0

Provides:
Date of last modification: 16.12.2021
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ 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: ÚCHV/MPPc/15 and ÚCHV/DCH2/22	
Conditions for course completion: 1. Compulsory attendance during the organisational and informational seminar. 2. Compulsory attendance: sitting in on classes, analytical classes at training schools. 3. Complete 8 lessons: sitting in on classes and analytical classes with supervising teachers. 4. Teaching classes and analytical classes under supervision – 30x. 5. Submit Continued practice teaching (CPT) II documentation. (Trainee's sitting-in and teaching schedule, Sitting-in records, Written class preparations, List of sitting-in sessions and trainee's performance during CPT II, CPT II report, Assessment of the trainee's pedagogical performance during CPT).	
Learning outcomes: The student can plan a series of lessons and other forms of instruction and teach them continually. Apply the pedagogic as well as subject-specific theory in practical teaching. Apply the didactic skills developed during the previous teaching practice completed in the actual educational environment. Evaluate one's own lesson project and professional competence level (areas: student, educational process, professional development) in terms of pedagogic theory and evaluation provided by the supervising teacher.	
Brief outline of the course: Observation and analysis of chemistry lessons and teaching under supervision. Written class preparation and teaching, active participation in extracurricular activities. Didactic Continued practice teaching (CPT) II analysis.	
Recommended literature: Current chemistry textbooks for primary and secondary schools in the Slovak Republic.	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 155

abs	n
100.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.

Date of last modification: 17.11.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 229

A	B	C	D	E	FX
57.64	30.13	8.73	2.62	0.87	0.0

Provides: doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KSSFaK/ KJPUAP/15	**Course name:** Culture of Spoken Discourse

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:

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: PhDr. Iveta Bónová, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 82

A	B	C	D	E	FX
71.95	13.41	7.32	7.32	0.0	0.0

Provides: Ing. Peter Kelbel, Dr.

Date of last modification: 19.07.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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.

Course level: II.

Prerequisities:

Conditions for course completion:
Evaluation of participation in teaching, continuous evaluation of activity in seminars, evaluation of seminar work,

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:
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: 109

A	B	C	D	E	FX
77.98	15.6	3.67	2.75	0.0	0.0

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DCH1/22	**Course name:** Didactics of Chemistry I

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: 2.

Course level: II.

Prerequisities: ÚCHV/SPC1a/22

Conditions for course completion:
1. Participations in seminars (also applies to tohe online form of teaching). Students are required to participate in seminars. The students can excuse themself (incapacity for work, family reasons, etc.) for a maximum of two seminars during the semester without the need for replacement. In the case of a longer-term justified absence (for example due to incapacity for work), the student will be assigned an alternative form of mastering the missed curriculum.
2. Active participation in class. Seminars are conducted in a form in which students are active – students present assignments, which include worksheets. The student is obliged to prepare 2 written assignments and a micro-output, which will be one of the conditions for participation in the exam. Topics of micro-outputs as well as requirements will be available through the e-learning portal LMS Moodle (direct link to the website: https://lms.upjs.sk/) in the course Didactics of Chemistry I.
3. The content of the seminars also includes assignments of seminar papers, which the student submits to the course Didactics of Chemistry I.
4. The student must pass a continuous assessment in the form of a written exam twice a semester.
5. Passing the exam: the exam is conducted in person as an oral exam.
In times of a pandemic situation, the written form of the exam is conducted through the Google Form application. Students fill in the answers to the written test. Test questions are always randomly generated.
The final assessment in the course consists of the sum of points obtained for:
1. Seminar work (0-20 points)
2. Continuous assessment (0-30 points)
3. Oral exam (0-50 points)
Conditions for successful completion of the course:
In order to obtain an A rating, it is necessary to obtain at least 85 points in total, to obtain an B rating at least 75 points, to obtain a C rating at least 65 points, to obtain a D rating at least 55 points and to obtain an E rating at least 45 points.

Learning outcomes:
The student will acquire knowledge and necessary skills for the work of teachers in the field of didactics of general and inorganic chemistry. Can implement inquiry-based learning and digital tools in the teaching of topics from these fields of chemistry at primary school and grammar school with a focus on the use of videos, models, animations, simulations, interactive games

and exercises (https://viki.iedu.sk/landing, https://phet.colorado.edu/sk/, https://www.olabs.edu.in/, https://studiumchemie.cz/). Expand your knowledge and skills on how to carry out demonstration experiments and projected experiments using a digital visualizer.

Brief outline of the course:

1. Introduction to didactics of chemistry. History of chemistry didactics and its current state. Teacher preparation for teaching (basic curricular documents: State educational program, school educational program, curricula, thematic educational plan, teacher preparation for a lesson).
2. Teaching aids in chemistry. Information and communication technologies in chemistry teaching.
3. School chemical experiment in chemistry teaching, demonstration and projected experiments.
4. Nomenclature of inorganic chemistry. Use of didactic games.
5. Didactics of calculation tasks in chemistry. Chemical calculations with a focus on the chemistry of everyday life.
6. Didactics of the topic Matter, substance, mixture. Inquiry methods in teaching the topic Mixtures and separation of components of mixtures. Inquiry-based method in teaching chemistry.
7. Didactics of the topic Atom, its composition and structure.
8. Didactics of the topic Chemical bonding.
9. Didactics of the topic Periodic table of elements. Interactive periodic table of elements at the Institute of Chemistry Faculty of Science, P. J. Šafárik University in Košice.
10. Didactics of the topic Chemical process. Thermochemistry and Chemical Kinetics.
11. Didactics of the topic Chemical process. Types of chemical reactions. Practical use of redox events. Electrolysis. Galvanic cells. Inquiry activities, computer-based experiments and projected experiments using a digital visualizer on the topic of Chemical process.
12. Presentation of micro-outputs on assigned topics.

Recommended literature:

1. GANAJOVÁ, M.: Vybrané kapitoly zo všeobecnej didaktiky chémie. UPJŠ v Košiciach, Prírodovedecká fakulta, 2009, 141 s. ISBN 978-80-7097-756-9.
2. KIREŠ, M., JEŠKOVÁ, Z., GANAJOVÁ, M., KIMÁKOVÁ, K.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť A. Bratislava: ŠPÚ, 2016. ISBN 978-80-8118-155-9. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/01cast_a_web.pdf
3. GANAJOVÁ, M., KRISTOFOVÁ, M.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť B. Ukážky vytvorených metodických a pracovných materiálov z predmetu Chémia. Bratislava: ŠPÚ, 2016. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/04cast_b_chemia_web.pdf
4. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre základné školy. Doplnené vydanie. Bratislava: CVTI SR, 2021. ISBN 978-80-8240-007-9. https://vzdelavanie.itakademia.sk/vystupy/zim-che-zs.pdf
5. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre stredné školy. Doplnené vydanie. Bratislava: CVTI Bratislava: CVTI SR, 2021. ISBN 978-80-8240-008-6. https://vzdelavanie.itakademia.sk/vystupy/zim-che-ss.pdf
6. GANAJOVÁ, M.: Metodika tvorby učebných úloh a didaktických testov pre chémiu. Košice: UPJŠ, 2015. ISBN 978-80-8152-237-6. https://unibook.upjs.sk/sk/prirodovedecka-fakulta/445-metodika-tvorby-ucebnych-uloh-a-didaktickych-testov-pre-chemiu
7. GANAJOVÁ a kol.: Rozvíjanie kompetencií žiakov prostredníctvom učebných úloh z chémie. Bratislava: ŠPÚ, 2018. ISBN 978-80-8118-215-0. https://www.statpedu.sk/files/sk/publikacna-cinnost/publikacie/spu-chemia-2018-web.pdf
8. GANAJOVÁ, M., BRESTENSKÁ, B., GUNIŠ, J., JEŠKOVÁ, Z., KIREŠ, M., LEŠKOVÁ, A., LUKÁČ, S., OROSOVÁ, R., SOTÁKOVÁ, I., SZARKA, K., ŠNAJDER, Ľ.: Formatívne

hodnotenie vo výučbe prírodných vied, matematiky a informatiky. 1. vyd. UPJŠ v Košiciach, 2021, 450 s. ISBN 978-80-8152-973-3.
9. Inovovaný štátny vzdelávací program pre 2. stupeň ZŠ. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_nsv_2014.pdf
10. Inovovaný štátny vzdelávací program pre gymnázia so štvorročným a päťročným vzdelávacím programom. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_g_4_5_r.pdf
11. Učebnice chémie pre základné školy a gymnáziá.
12. E – learning kurz: Didaktika chémie I, https://lms.upjs.sk/

Course language:

Notes:

Course assessment
Total number of assessed students: 24

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

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D., RNDr. Martin Vavra, PhD.

Date of last modification: 08.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DCH2/22	**Course name:** Didactics of Chemistry II

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: ÚCHV/DCH1/22 or ÚCHV/DCH1/15

Conditions for course completion:
1. Participations in seminars (also applies to tohe online form of teaching). Students are required to participate in seminars. The students can excuse themself (incapacity for work, family reasons, etc.) for a maximum of two seminars during the semester without the need for replacement. In the case of a longer-term justified absence (for example due to incapacity for work), the student will be assigned an alternative form of mastering the missed curriculum.
2. Active participation in class. Seminars are conducted in a form in which students are active – students present assignments, which include worksheets. The student is obliged to prepare 2 written assignments, which will be one of the conditions for participation in the exam. Topics of written assignments as well as requirements will be available through the e-learning portal LMS Moodle (direct link to the website: https://lms.upjs.sk/) in the course Didactics of Chemistry II.
3. The content of the seminars also includes assignments of seminar papers, which the student submits to the course Didactics of Chemistry II.
4. The student must pass a continuous assessment in the form of a written exam twice a semester.
5. Passing the exam: Passing the exam: the exam is conducted in person as an oral exam.
In times of a pandemic situation, the written form of the exam is conducted through the Google Form application. Students fill in the answers to the written test. Test questions are always randomly generated.
The final assessment in the course consists of the sum of points obtained for:
1. Written assignments (0-20 points)
2. Seminar work (0-10 points)
3. Written tests (0-20 points)
5. Oral exam (50 points)
Conditions for successful completion of the course: In order to obtain an A rating, it is necessary to obtain at least 85 points in total, to obtain an B rating at least 75 points, to obtain a C rating at least 65 points, to obtain a D rating at least 55 points and to obtain an E rating at least 45 points.

Learning outcomes:
Student will acquire knowledge and necessary skills for the work of teachers in the field of didactics of inorganic and organic chemistry as well as in selected topics of didactics of biochemistry. Can implement inquiry-based learning and digital tools in the teaching of topics from these fields of chemistry at primary school and

grammar school with a focus on the use of videos, models, animations, simulations, interactive games and exercises (https://viki.iedu.sk/landing, http://kekule.science.upjs.sk/chemia/index.htm, https://studiumchemie.cz/, http://www.studiumbiochemie.cz/aplikace2.html#10, http://didaktikabiochemie.natur.cuni.cz/db2020/db.html). He is able to included selected topics with an interdisciplinary focus (water quality, greenhouse effect, ozone hole, renewable energy sources) into teaching.

Brief outline of the course:

1. Didactics of inorganic chemistry – selected chemical elements and their inorganic compounds. Alkali metals, alkaline earth metals, selected transition elements. Use of SATL method in teaching chemistry, complex tasks focused on the development of transformation skills.
2. Didactics of the topic Air, Global environmental problems: Ozone and the ozone hole, Greenhouse effect.
3. Didactics of inorganic chemistry – selected chemical elements and their inorganic compounds. Alkali metals, alkaline earth metals, selected transition elements. Use of SATL method in teaching chemistry, complex tasks focused on the development of transformation skills.
4. Didactics of organic chemistry. Isomerism in the teaching of organic chemistry - Constitutional isomerism and stereoisomerism.
5. Didactics of the topic Hydrocarbons and hydrocarbon derivatives. SATL method. Energy sources - fossil fuels and renewable energy sources.
6. Plastics, chemistry of macromolecular substances. Use of inquiry-based method in teaching topics: Recognition of plastics, Properties of plastics.
7. Didactics of the topic Natural substances. Use of inquiry-based learning and project-based learning in topics: Proteins, Carbohydrates, Lipids. Home experiments on Proteins, Carbohydrates, Fats.
8. Didactics of the topic Washing and cleaning agents.
9. Didactics of the topic Additives in food. Didactics of the topic Vitamins. Didactics of selected topics from biochemistry Biosynthesis and metabolism, digestion and metabolism.

Recommended literature:

1. GANAJOVÁ, M. KALAFUTOVÁ, J. a kol.: Projektové vyučovanie v chémii. Didaktická príručka pre učiteľov základných škôl. Bratislava: Štátny pedagogický ústav, 2010. 144 s. ISBN 978-80-8118-058-3.
2. KIREŠ, M., JEŠKOVÁ, Z., GANAJOVÁ, M., KIMÁKOVÁ, K.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť A. Bratislava: ŠPÚ, 2016. ISBN 978-80-8118-155-9. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/01cast_a_web.pdf
3. GANAJOVÁ, M., KRISTOFOVÁ, M.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť B. Ukážky vytvorených metodických a pracovných materiálov z predmetu Chémia. Bratislava: ŠPÚ, 2016. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/04cast_b_chemia_web.pdf
4. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre základné školy. Doplnené vydanie. Bratislava: CVTI SR, 2021. ISBN 978-80-8240-007-9. https://vzdelavanie.itakademia.sk/vystupy/zim-che-zs.pdf
5. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre stredné školy. Doplnené vydanie. Bratislava: CVTI SR, 2021. ISBN 978-80-8240-008-6. https://vzdelavanie.itakademia.sk/vystupy/zim-che-ss.pdf
6. GANAJOVÁ, M.: Metodika tvorby učebných úloh a didaktických testov pre chémiu. Košice: UPJŠ, 2015. ISBN 978-80-8152-237-6. https://unibook.upjs.sk/img/cms/2015/pf/didaktika-textyganajova.pdf

7. GANAJOVÁ a kol.: Rozvíjanie kompetencií žiakov prostredníctvom učebných úloh z chémie. Bratislava: ŠPÚ, 2018. ISBN 978-80-8118-215-0. https://www.statpedu.sk/files/sk/publikacna-cinnost/publikacie/spu-chemia-2018-web.pdf
8. GANAJOVÁ, M., BRESTENSKÁ, B., GUNIŠ, J., JEŠKOVÁ, Z., KIREŠ, M., LEŠKOVÁ, A., LUKÁČ, S., OROSOVÁ, R., SOTÁKOVÁ, I., SZARKA, K., ŠNAJDER, Ľ.: Formatívne hodnotenie vo výučbe prírodných vied, matematiky a informatiky. 1. vyd. UPJŠ v Košiciach, 2021, 450 s. ISBN 978-80-8152-973-3.
9. Inovovaný štátny vzdelávací program pre 2. stupeň ZŠ. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_nsv_2014.pdf
10. Inovovaný štátny vzdelávací program pre gymnázia so štvorročným a päťročným vzdelávacím programom. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_g_4_5_r.pdf
11. Školský informačný systém. Chémia. http://kekule.science.upjs.sk/chemia/index.htm
12. E – learning kurz: Didaktika chémie II, https://lms.upjs.sk/

Course language:

Notes:

Course assessment
Total number of assessed students: 39

A	B	C	D	E	FX
89.74	10.26	0.0	0.0	0.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D., RNDr. Martin Vavra, PhD.

Date of last modification: 08.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 10% - Average points for completed assignments (min. 8 points/item) is counted as the value of the grade A for an average of 9-10 b. as B for average 8-9 b. For a lower average value after correction: average 7-8 b. = C, 6-7 b. = D, 5-6 b. = E. 10% - Output at the lecture. 20% - semester project (evaluation is part of the evaluation form). 60% - the result of the final oral exam. Conversion of points to a grade: A 95 - 100 B 85 - 94 C 65 - 84 D 55 - 64 E 50 - 54 FX 0 - 49 The resulting grade is calculated as a weighted average according to the standard value of classification grades A to E.

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: 660

A	B	C	D	E	FX
52.73	29.24	14.39	3.48	0.15	0.0

Provides: doc. RNDr. Katarína Kimáková, CSc., RNDr. Ivana Slepáková, PhD., PaedDr. Andrea Lešková, PhD., RNDr. Anna Mišianiková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 12.02.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ 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:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 21

abs	n
100.0	0.0

Provides:
Date of last modification: 16.02.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ 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:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 19

abs	n
100.0	0.0

Provides:
Date of last modification: 16.02.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 22

abs	n
100.0	0.0

Provides:
Date of last modification: 13.05.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ 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:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 18	

abs	n
100.0	0.0

Provides:
Date of last modification: 16.02.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 40	
abs	n
100.0	0.0
Provides:	
Date of last modification: 13.05.2022	
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/DPOU/22	**Course name:** Diploma Thesis and its Defence

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

Number of ECTS credits: 14

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚCHV/DPP3/22

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 2

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

Provides:

Date of last modification: 17.02.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 15

A	B	C	D	E	FX
86.67	13.33	0.0	0.0	0.0	0.0

Provides:
Date of last modification: 13.05.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 32

abs	n
100.0	0.0

Provides:

Date of last modification: 13.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DSU1a/10	**Course name:** Diplomový seminár z chémie pre XCH
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: 13

abs	n
100.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.
Date of last modification: 21.01.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DSU1b/21	**Course name:** Diplomový seminár z chémie pre XCH
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:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 2

abs	n
100.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.
Date of last modification: 09.02.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 419

A	B	C	D	E	FX
50.84	41.29	7.16	0.72	0.0	0.0

Provides: prof. PhDr. Oľga Orosová, CSc., Mgr. Lucia Barbierik, PhD., Mgr. Viera Čurová, PhD., Mgr. Janka Liptáková

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 233

A	B	C	D	E	FX
73.82	16.31	6.44	2.58	0.86	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 700

A	B	C	D	E	FX
56.14	24.14	11.14	5.14	2.71	0.71

Provides: PaedDr. Michal Novocký, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 1119

A	B	C	D	E	FX
42.98	24.4	22.97	7.95	1.61	0.09

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

Date of last modification: 22.09.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CIB/ EVČ/21	**Course name:** Evolúcia človeka

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: 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: 0

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

Provides: doc. RNDr. Martin Kundrát, PhD.

Date of last modification: 09.02.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 410

A	B	C	D	E	FX
44.63	37.8	13.66	3.66	0.24	0.0

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 235

A	B	C	D	E	FX
62.55	20.85	11.49	4.26	0.85	0.0

Provides: doc. RNDr. Peter Pristaš, CSc., RNDr. Mária Piknová, PhD., RNDr. Mariana Kolesárová, PhD., RNDr. Lenka Maliničová, PhD.

Date of last modification: 16.12.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 304

A	B	C	D	E	FX
26.97	32.89	27.3	9.87	2.96	0.0

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 30.10.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 29

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

Provides: RNDr. Ivana Slepáková, PhD.

Date of last modification: 05.04.2023
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Active participation in seminars, preparation and presentation of seminar work, final evaluation

Learning outcomes:
The aim of the course is to provide students with the latest knowledge and background of Health Psychology as well as forms of its application in order to improve the mental and physical health of individuals and society. The graduate of the course will understand the principles of health psychology, will be familiar with the current social discourse on the topics covered. The student will learn to use the acquired knowledge in school practice.

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.: Psychologie zdraví. Praha: Portál, 2001
Kebza, V.: Psychosociální determinanty zdraví. Praha: Academia, 2005
Křivohlavý, J.: Psychologie nemoci. Praha : Grada, 2002
Sarafino, E.P.: Health Psychology: Biopsychosocial Interactions, John Wiley & Sons, 2007
Taylor, E.: Health Psychology. Singapore: McGraw-Hill, 2006
Vollrath M.E.: Handbook of Personality and Health. Chichester: John Wiley & Sons, 2006

Course language:

Notes:

Course assessment
Total number of assessed students: 118

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

Provides: doc. Mgr. Mária Bačíková, PhD.

Date of last modification: 22.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 487

A	B	C	D	E	FX
97.54	2.26	0.21	0.0	0.0	0.0

Provides: prof. RNDr. Martin Bačkor, DrSc.

Date of last modification: 03.05.2015

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 1054

A	B	C	D	E	FX
39.75	23.81	23.72	7.12	1.99	3.61

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

Date of last modification: 22.09.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/IB/22	**Course name:** Informatics in Biology

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:

Conditions for course completion:
Elaboration of an evaluated assignment for each of the three thematic units: image analysis, modeling, databases.

Learning outcomes:
The graduate of the course will be ready to teach the optional course Informatics in Natural Sciences and Mathematics at the secondary school.

Brief outline of the course:
Imaging methods in biology (analysis of digital image of biological objects, detection of the number of particles (eg blood cells), measurement of lengths and areas, processing of acquired data)
Modeling (coaching modeling and working with ready-made Python programs: spread of infection, impact of vaccination, cell culture growth, tumor growth, forest development, predator prey relationship)
Biological databases (working with big data, data filtering, animal migration monitoring, species identification applications)

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

Course language:

Notes:

Course assessment
Total number of assessed students: 10

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

Provides: RNDr. Anna Mišianiková, PhD., doc. RNDr. Katarína Kimáková, CSc.

Date of last modification: 13.05.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/UPN/17	**Course name:** Introduction into Psychology of Religion

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:
The assessment is based on the interim evaluation. The subject will be taught in both present and distance format. Up-to-date information concerning the subject for the given academic year can be found on the electronic board of the subject in the Academic information system of the UPJŠ.

Learning outcomes:
The student wil acquire a basic overview of the origin and current state of knowledge in the field of research and application the psychology of religion. He/she will be able to described, explaine, and evaluate this knowlege. The student will be able to apply the acquired knowledge in the basic orientation in the field, and develop critical thinking and will be able to apply and integrate already acquired knowledge from other (psychological) distributions

Brief outline of the course:
1. History of psychology of religion in national and world context
2. Psychological perspective on religion and religious experience
3. Psychology of religion in an interdisciplinary context
4. Basic approaches to psychological interpretation and selected views
5. Different types of religious experience
6. Psychological view of religion from a biodromal perspective
7. Spirituality versus religiosity in a postmodern society
8. Coping in the context of religiosity
9. Psychotherapy and religion, pastoral psychology

Recommended literature:
Eliade, M. (1994). Posvátné a profánní. Praha: Česká křesťanská akademie.
Eliade, M. (1995). Dějiny náboženského myšlení 1. Praha: Oikoymenh.
Freud, S. (1999). Nutkavá jednání a náboženské úkony. In Freud, S., Spisy z let 1906–1909. Praha: Psychoanalytické nakladatelství.
Fromm, E. (2003). Psychoanalýza a náboženství. Praha: Aurora
Erikson, E. (1996). Mladý muž Luther: studie psychoanalytická a historická. Praha: Psychoanalytické nakladatelství.
James, W. (1930). Druhy náboženské zkušenosti. Praha: Melantrich.
Jung, C. G. (1993). Analytická psychologie: Její teorie a praxe. Praha: Academia.

Křivohlavý, J. (2000). Pastorální péče. Praha: Oliva
Pargament, K. (1997), Psychology of religion and coping,
Říčan, P. (2007). Psychologie náboženství a spirituality. Praha: Portál.
Říčan P. (2002), Psychologie náboženství, Portál, Praha,
Stríženec, M. (2001) Súčasná psychológia náboženstva

Course language:

Notes:

Course assessment
Total number of assessed students: 77

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

Provides: Mgr. Jozef Benka, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 1825

A	B	C	D	E	FX
20.99	17.64	24.93	17.21	11.73	7.51

Provides: RNDr. Natália Raschmanová, PhD., doc. RNDr. Marcel Uhrin, PhD., univerzitný profesor

Date of last modification: 16.03.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ UECH/22	**Course name:** Introduction to Environmental Chemistry

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:
Continuous test. Active participation in exercises - elaboration of semester work. Passing the final examination in the form of a written test.

Learning outcomes:
Introduction to topics in environmental chemistry and basic procedures applied for environmental protection.

Brief outline of the course:
Introduction to Environmental Chemistry
Chemical aspects of pollution and environmental problems. Composition and behavior of the atmosphere. Energy balance of the Earth and climate changes. Principles of photochemistry, photoprocesses in the atmosphere. Petroleum, hydrocarbons and coal (characteristics, sources and environmental pollution). Soaps, polymers and synthetic surfactants. Haloorganics and pesticides. Environmental chemistry of some important elements (C, N, S, P, halogens, biologically important metals ...). Environmental chemistry in aqueous media. Aqueous systems, parameters, cycles and their protection. The Earth´s crust (rocks, minerals, soils). Natural and artificial radioactivity, utilization. Energy and energy sources (fossil fuels, nuclear, geothermal, solar energy, wind and water energy). Solid waste disposal and recycling.

Recommended literature:
1. Gary W. van Loon, Stephen J. Duffy: Environmental Chemistry - A Global Perspective, Oxford University Press, Oxford 2003.
2. R. A. Bailey, H. M. Clark, J. P. Ferris, S. Krause, R. L. Strong: Chemistry of the Environment, Academic Press, San Diego 2002.
3. G. Schwedt: The Essential Guide to Environmental Chemistry, Wiley and Sons, London 2001.
4. R. N. Reeve, J. D. Barnes: General Environmental Chemistry, Wiley, London 1994.
5. G. Burton, J. Holman, G. Pilling, D. Waddington: Chemical Storylines, Heinemann, Oxford, London 1994.

Course language:

Notes:
In-person learning - lectures, seminars and examination. Students are required to attend seminars.

Based on the current pandemic situation in Slovakia and in accordance with the conditions of the Faculty of Natural Sciences of UPJŠ in Košice, the education and examination can also be carried out in a distance form. The tutorial will be carried out in the form of online lectures and consultings in the BigBlueButton system.

Course assessment

Total number of assessed students: 9

A	B	C	D	E	FX
66.67	11.11	22.22	0.0	0.0	0.0

Provides: doc. RNDr. Andrea Straková Fedorková, PhD.

Date of last modification: 07.11.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/ZMPPV/15	**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: KPPaPZ/PPgU/15 and 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: 720

A	B	C	D	E	FX
19.44	26.81	24.86	19.72	9.03	0.14

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

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 99

A	B	C	D	E	FX
53.54	29.29	12.12	3.03	2.02	0.0

Provides: doc. RNDr. Jozef Hanč, PhD.

Date of last modification: 07.07.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 179

A	B	C	D	E	FX
75.98	22.35	1.68	0.0	0.0	0.0

Provides: Mgr. Katarína Petríková, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 86

A	B	C	D	E	FX
83.72	11.63	4.65	0.0	0.0	0.0

Provides: Mgr. Beáta Sakalová

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 10

A	B	C	D	E	FX
10.0	70.0	10.0	10.0	0.0	0.0

Provides:

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 69

A	B	C	D	E	FX
18.84	34.78	30.43	14.49	1.45	0.0

Provides:

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 400

A	B	C	D	E	FX
38.5	22.25	21.25	8.75	8.5	0.75

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

Date of last modification: 24.07.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 121

A	B	C	D	E	FX
79.34	14.88	5.79	0.0	0.0	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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., 4.

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:
The student will understand the principles of teacher ethics and the ethics of the educational counselor as one of the branch types of professional ethics. The student can theoretically reflect on the ethical and moral issues of the teaching profession and the function of the educational counselor (including the formulation of moral values, principles and standards of the teaching profession and the function of the educational counselor in the form of codes of ethics). He is able to analyze and solve practical moral problems in pedagogical practice, which supports the development of professional skills of students. The student is able to critically evaluate situations with a moral context thanks to the opportunity to discuss moral and ethical issues in an open way.

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, Babinčák, P. Základy psychológie morálky. Košice : Equilibria, 2009. - 130 s. ISBN 9788070977866 (brož.).
Gluchmanová, M. K niektorým terminologickým otázkam učiteľskej etiky. Pedagogická orientace 2007, č. 2, s. 11–25. ISSN 1211-4669.
Malankievičová, S. Profesijná etika: FF PU. 2008.
Miezgová J., Vargová, D. Etika. SPN Mladé letá 2007.
Remišová A. Dejiny etického myslela v Európe a USA. Bratislava, Kalligram 2008.
Zelina, M. Teória výchovy alebo hľadanie dobra. Bratislava SPN 2010.
Gluchmanová, M. Uplatnenie princípov a hodnôt etiky sociálnych dôsledkov v učiteľskej etike. Prešov: FF PU,2009. 222 s. ISBN 978-80-555-0042-3
Campbell, E. The Ethical Teacher. Berkshire (England): Open University Press, 2003. 178 s. ISBN 03-3521-219-0.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 496

A	B	C	D	E	FX
96.98	2.62	0.4	0.0	0.0	0.0

Provides: Mgr. Lucia Barbierik, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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:
Combined method.
Assessment Maximum 50 points during the semester (Three assignments).
Exam entry criteria: Active participation in exercises and at least 35 points obtained during the semester.
Continuous assessment (50%) and written examination (50%) / 10 questions.
Final evaluation:
A 87 – 100, B 77 – 86, C 69 – 76, D 61 – 68, E 56 – 60
Electronic board of the course AIS2 - more information and news.

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: The subject and goals of psychology and educational psychology. Professional forms of help in school practice.
Implementation of psychological concepts of personality into school practice (Classical and contemporary psychoanalytic theory, Individual psychology, Humanistic psychology, Concept of

creative-humanistic education; Cognitivism and Theory of personal constructs). Social psychology of school and family. Learning and teaching. Health and disease; risk / protective factors with healthy related risk behavior. Psychology of students with behavioral and learning problems. Psychology of students with psychosocial, socio-cultural, health disadvantages. Psychological examination. Consulting process. Crisis intervention. Programs for prevention of risky behavior of schoolchildren.

Recommended literature:

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.
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.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 1734

A	B	C	D	E	FX
11.01	20.13	23.88	22.38	20.18	2.42

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

Date of last modification: 14.09.2023

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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 (max. 2 absences) - 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:
The concept of creativity.
A brief history of the theory of creativity.
Social, psychological and biological factors of creativity.
Cognitive processes in creativity.
Creativity and cognitive style.
Development of creativity.
Talent and giftedness.
Methods of determining creativity and talent.
Methods of developing creativity and talent.
Creativity and talent development programs. Specifics of working with the gifted children.

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: 80

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

Provides: Mgr. Lucia Barbierik, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 44	

abs	n
100.0	0.0

Provides: doc. PaedDr. Ivica Hajdučeková, PhD.
Date of last modification: 15.09.2023
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ 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:
1. Compulsory attendance during the organisational and informational seminar.
2. Compulsory attendance: sitting in on classes, analytical classes at training schools.
3. Sitting in on classes and analytical classes taught by supervising teachers – 11x.
4. Complete 1 independent teaching session and analytical class under supervision.
5. Submitted Scheduled practice teaching (SPT) documentation.
(Sitting-in records, Written class preparation, List of sitting-in sessions and trainee's performance during SPT, SPT report, Assessment of the trainee's pedagogical performance during SPT).

Learning outcomes:
The student can purposefully perceive and interpret phenomena observed during chemistry classes in terms of subject didactics and psychodidactics. Confront their own preconcepts pertaining to subject didactics and psychodidactics with the actual teachers' concepts in practice. Gain motivation for further study of the respective disciplines in terms of their own specialisation and for purposeful development of professional competences. Apply didactic skills to teach chemistry by designing a lesson project and teaching it in practice.

Brief outline of the course:
Students observe the process of teaching the subject of chemistry in primary school and secondary school and analyze it with supervising teacher. The internship takes place continuously during the semester. It is included in the timetable once a week at time 1-3. lessons at primary and secondary schools. The first two hours students observe/teach, the third lesson is an analysis.
Observation, perception, and analysis of subject-specific and psychodidactic phenomena in the way chemistry is taught at the training schools. Written evaluation and theoretical generalisation of the phenomena observed during the classes. Didactic Scheduled practice teaching analysis. Analysis of the perceived phenomena, theoretical generalisation, and comparison of the findings against theory. Written class preparation for teaching a lesson in chemistry. Trainee's teaching performance.

Recommended literature:
Current chemistry textbooks for primary and secondary schools in the Slovak Republic.

Course language:

Notes:

Course assessment Total number of assessed students: 313	
abs	n
100.0	0.0
Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D.	
Date of last modification: 26.10.2021	
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 540

abs	n
99.63	0.37

Provides:

Date of last modification: 16.12.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ SPP/08	**Course name:** School experiments and observations

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:

Conditions for course completion:
Didactic analysis after conducted experiments and observations. Semester Project Methodology of practical exercize on the chosen topic biology curriculum, presentation and demonstration of integrated experiment at the end of the semester.

Learning outcomes:
Teacher preparation, how to carry out biological school experiments and classroom observations.

Brief outline of the course:
The course is aimed at training and application skills that are necessary for the implementation of experiments and observations in the classroom. It helps students develop theoretical knowledge in practical work during training and familiarizes them with didactic methods in demonstrating the biological observation and educational experiments. It focuses on the possibilities of applying these methods in the various stages of a teaching unit.

Recommended literature:
HUDÁKOVÁ, A., KIMÁKOVÁ, K. 2005. Demonštračné pokusy a pozorovania z biológie rastlín. Košice: UPJŠ; Prírodovedecká fakulta, 84 s. ISBN 80-7097-610-1.
UŠÁKOVÁ, K. ČIPKOVÁ, E., NAGYOVÁ, S. GÁLOVÁ, T. 2012, Biológia pre gymnáziá 7: Praktické cvičenia a seminár I, Slovenské pedagogické nakladateľstvo - Mladé letá (Bratislava) 2. vyd. ISBN: 9788010023905
UŠÁKOVÁ, K. ČIPKOVÁ, E., NAGYOVÁ, S. GÁLOVÁ, T. 2012, Biológia pre gymnáziá 8: Praktické cvičenia a seminár II, Slovenské pedagogické nakladateľstvo - Mladé letá (Bratislava) ISBN9788010023912
Internal study materials in Moodle https://lms.upjs.sk/login/index.php

Course language:
Slovak

Notes:
x

Course assessment
Total number of assessed students: 106

A	B	C	D	E	FX
66.98	17.92	12.26	1.89	0.0	0.94

Provides: PaedDr. Andrea Lešková, PhD.

Date of last modification: 31.05.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 150

A	B	C	D	E	FX
14.0	23.33	32.67	14.67	13.33	2.0

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

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SPC1a/22	**Course name:** Special Practising the School Experiments I

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 4 **Per study period:** 56
Course method: present

Number of ECTS credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Participations in exercises (also applies to tohe online form of teaching). Students are required to participate in laboratory exercises. The students can excuse themself (incapacity for work, family reasons, etc.) for a maximum of two exercises during the semester without the need for replacement. In the case of a longer-term justified absence (for example due to incapacity for work), the student will be assigned an alternative form of mastering the missed curriculum.
2. Active participation in class. Students are active – they master the knowledge of general and inorganic chemistry, they know the working procedures for experiments, which include worksheets, cooperation and communication in pairs/groups and presentation of the results of their work. Learning materials will be available through the e-learning portal LMS Moodle (direct link to the website: https://lms.upjs.sk/) in the course Special Practising the School Experiments I.
3. Outputs – presentation of experiments for primary and secondary school. There will be two outputs focused on demonstration experiments on selected topics of primary and secondary school chemistry.
4. A part of the student's assessment in the subject is also a written test, given in the 8th week of teaching.
The final assessment in the course consists of the sum of points obtained for:
1. Active preparation for exercises (0-30 points).
2. Outputs – presentation of experiments for primary and secondary schools (0-20 points).
3. Written test (0-50 points).
Conditions for successful completion of the course: In order to obtain an A rating, it is necessary to obtain at least 85 points in total, to obtain an B rating at least 75 points, to obtain a C rating at least 65 points, to obtain a D rating at least 55 points and to obtain an E rating at least 45 points.

Learning outcomes:
The aim of the course is to acquire and consolidate basic experimental skills and habits in work techniques in school demonstration experiments with an emphasis on the safety and health of students in student experimental work. Students will also acquire basic knowledge and skills in the field of inquiry-based learning and work with computer-based chemical experiments.

Brief outline of the course:
1. General instructions for work in a school chemical laboratory.

2. Basic chemical concepts.
3. Basic chemical laws and properties of substances. Solubility of substances. Solutions. Determination of physical and chemical constants.
4. Energy changes in chemical reactions. Factors affecting the rate of chemical reactions.
5. Experiments on the topic of oxygen, hydrogen, air.
6. Halogens and their compounds.
7. Chalcogens and their compounds.
8. Carbon, nitrogen and their compounds.
9. Acids and bases.
10. Chemistry of everyday life in school experiments.
11. Environmental chemistry. Interesting school experiments.

Recommended literature:

1. GANAJOVÁ, M., DZURILLOVÁ, M.: Školské pokusy z chémie I. Košice: UPJŠ v Košiciach, Prírodovedecká fakulta, 2005. ISBN 80-7097-617-9.
2. KIREŠ, M., JEŠKOVÁ, Z., GANAJOVÁ, M., KIMÁKOVÁ, K.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť A. Bratislava: ŠPÚ, 2016. ISBN 978-80-8118-155-9. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/01cast_a_web.pdf
3. GANAJOVÁ, M., KRISTOFOVÁ, M.: Bádateľské aktivity v prírodovednom vzdelávaní. Časť B. Ukážky vytvorených metodických a pracovných materiálov z predmetu Chémia. Bratislava: ŠPÚ, 2016. ISBN 978-80-8118-155-9. https://www.statpedu.sk/files/articles/nove_dokumenty/ucebnice-metodiky-publikacie/badatelske-aktivity/04cast_b_chemia_web.pdf
4. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre základné školy. Doplnené vydanie. Bratislava: CVTI SR, 2021. ISBN 978-80-8240-007-9. https://vzdelavanie.itakademia.sk/vystupy/zim-che-zs.pdf
5. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre stredné školy. Doplnené vydanie. Bratislava: CVTI Bratislava: CVTI SR, 2021. ISBN 978-80-8240-008-6. https://vzdelavanie.itakademia.sk/vystupy/zim-che-ss.pdf
6. Inovovaný štátny vzdelávací program pre 2. stupeň ZŠ. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_nsv_2014.pdf
7. Inovovaný štátny vzdelávací program pre gymnázia so štvorročným a päťročným vzdelávacím programom. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_g_4_5_r.pdf
8. Učebnice chémie pre základné školy a gymnáziá.
9. Školský informačný systém. Chémia. http://kekule.science.upjs.sk/chemia/index.htm
10. Virtuálne prírodovedecké laboratórium. http://www.virtual-lab.sk/videozaznamy.html
11. Studium chemie. Portál PřF UK pro podporu vyuky chemie na SŠ a ZŠ. https://studiumchemie.cz/
12. E-ChemBook – Multimediální učebnice chemie. https://www.youtube.com/user/VideosChemWeb/videos
13. E – learning kurz: Špeciálne praktikum školských pokusov I, https://lms.upjs.sk/

Course language:

Notes:

Course assessment
Total number of assessed students: 43

A	B	C	D	E	FX
51.16	37.21	9.3	2.33	0.0	0.0

Provides: doc. RNDr. Mária Ganajová, CSc., RNDr. Ivana Sotáková, Ph.D., RNDr. Martin Vavra, PhD.

Date of last modification: 17.02.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SPC1b/22	**Course name:** Special practising the school experiments II

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
1. Pressence is complusory. In the case of long-term absence can student realize experiments in alternative term.
2. Students activity - knowledges about reaction mechanisms and experimental skills to realize experiments.
3. Make reports of every exercise.
Classification:
1. Short exams on the beginning of every exercise (max 35 points)
2. Reports of every exercise (max 15 points)
3. Two exams (each max 25 points, min 51%)
A: 100 – 91%
B: 90 – 81%
C: 80 – 71%
D: 70 – 61%
E: 60 – 51%

Learning outcomes:
The students will become familiar with the basic laboratory skills and techniques that they can apply in demonstrating experiments in their future career as a teacher. The rules of healthy and safety laboratory work are emphasised. Students will apply their knowledges and sklills in exploration activities in the topic of Natural compounds on the basis of 5E. They can motivate students using chemical experiments (https://studiumchemie.cz/, https://www.youtube.com/user/VideosChemWeb/videos, http://www.e-chembook.eu/).

Brief outline of the course:
1. Qualitative analysis of organic compounds - confirmation reactions for carbon, hydrogen, halogens and nitrogen.
2. Alkanes - preparation of methane.
3. Alkenes - preparation of ethene and its confirmation using its addition reactions; addition reactions of β-carotene.
4. Alkynes - preparation of acetylene and its derivatives, confirmation reactions of acetylene.

5. Aromatic hydrocarbons and their derivatives – preparation of benzene, aromatic electrophilic substitution reactions – nitration of toluene and naphthalene, preparation of benzyl bromide.
6. Halogenoderivatives – preparation of chloroethane and iodoform.
7. Hydroxoderivatives – oxidation reactions of ethanol, ability to distinguish methanol from ethanol, confirmation reaction of glycerol, preparation of sodium ethanolate and sodium phenoxide, bromation of phenol, colour reactions of phenols and naphtols.
8. Ethers – properties of diethyl ether.
9. Carbonyl compounds - preparation of formaldehyde and acetaldehyde, confirmation reactions of aldehydes and ketones.
10. Carboxylic acids and their derivatives – esterification reactions, reaction of carboxylic acids with magnesium, preparation and properties of soap.
11. Natural compounds – carbohydrates, proteins, amino acids, lipids. Exploration activities on the topic of Natural compounds: fermentation, bioglue, murder and food
12. Natural pH indicator - study of its colur changes depending on pH values.
13. Column chromatography -acetylation reaction of ferrocene - its preparation and separation of the obtained products by column chromatography.
14. Isolation of the fragrant components using steam distillation.
15. Everyday life chemistry.

Recommended literature:

1. SMIK, L., MERVA, L., BRUTOVSKÁ, A: Technika a didaktika školských pokusov Košice: Vyd. Rektorát UPJŠ, 1988.
2. SMIK, L. a kol.: Špeciálna didaktika chémie II., Košice: Vyd. Rektorát UPJŠ, 1984.
3. Špeciálne praktikum školských pokusov z organickej chémie – Interné skriptá.
4. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre základné školy. 1. doplnené vydanie. Bratislava: CVTI SR, 2021. https://vzdelavanie.itakademia.sk/vystupy/zim-che-zs.pdf
5. GANAJOVÁ a kol.: Zbierka inovatívnych metodík z chémie pre stredné školy. 1. doplnené vydanie. Bratislava: CVTI SR, 2021. https://vzdelavanie.itakademia.sk/vystupy/zim-che-ss.pdf
6. Inovovaný štátny vzdelávací program pre 2. stupeň ZŠ. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_nsv_2014.pdf
7. Inovovaný štátny vzdelávací program pre gymnázia so štvorročným a päťročným vzdelávacím programom. Človek a príroda. Chémia. https://www.statpedu.sk/files/articles/dokumenty/inovovany-statny-vzdelavaci-program/chemia_g_4_5_r.pdf
8. Učebnice chémie pre základné školy a gymnáziá.
9. Studium chemie. Portál PřF UK pro podporu vyuky chemie na SŠ a ZŠ. https://studiumchemie.cz/
10. E-ChemBook – Multimediální učebnice chemie. https://www.youtube.com/user/VideosChemWeb/videos

Course language:
slovak language

Notes:

Course assessment
Total number of assessed students: 36

A	B	C	D	E	FX
66.67	30.56	2.78	0.0	0.0	0.0

Provides: RNDr. Slávka Hamuľaková, PhD., univerzitná docentka, RNDr. Jana Špaková Raschmanová, PhD., RNDr. Ján Elečko, PhD.
Date of last modification: 16.02.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 783

abs	n
100.0	0.0

Provides: doc. PhDr. Beata Gajdošová, PhD., doc. PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD.
Date of last modification: 12.03.2024
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 854

A	B	C	D	E	FX
24.82	28.34	26.35	14.4	5.62	0.47

Provides: doc. PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD.

Date of last modification: 12.03.2024

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 180

A	B	C	D	E	FX
90.56	2.78	5.0	1.11	0.56	0.0

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 24.06.2022

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ VKOCHB/22	**Course name:** Vybrané kapitoly z organickej chémie a biochémie

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: 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: prof. RNDr. Mária Kožurková, CSc., doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka, doc. RNDr. Ján Imrich, CSc.

Date of last modification: 15.11.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ VKVACH/22	**Course name:** Vybrané kapitoly zo všeobecnej a anorganickej chémie

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: 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: 39

A	B	C	D	E	FX
74.36	25.64	0.0	0.0	0.0	0.0

Provides: prof. RNDr. Vladimír Zeleňák, DrSc., prof. RNDr. Zuzana Vargová, Ph.D.

Date of last modification: 16.11.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, 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: 1017

A	B	C	D	E	FX
24.98	23.5	23.4	18.68	7.67	1.77

Provides: prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 10.12.2021

Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SVKCHX/22	**Course name:** ŠVK (vystúpenie)
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: 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: 5

abs	n
100.0	0.0

Provides:
Date of last modification: 30.06.2022
Approved: prof. PhDr. Oľga Orosová, CSc., doc. RNDr. Mária Ganajová, CSc., prof. RNDr. Ľubomír Kováč, CSc.