CONTENT

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/FYZ/04	**Course name:** Animal and Human Physiology

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: Per study period: 15s
Course method: distance, present

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
oral examination

Learning outcomes:
To extend the knowledge from the basic subject of Animal physiology with respect to the topic of the dissertation.

Brief outline of the course:
1. Basic principles in Animal Physiology.
2. The goal and functioning of the integrating systems of the body. Control and regulating processes.
3. Homeostatic mechanisms for maintenance of the stability of the inner environment. The aim of physiological adaptations.
4. Transport processes in the human body.
5. Principles of the energetic metabolism. Anaerobic and aerobic processes in the metabolism of nutrients.
6. Adaptation to low and high environmental temperatures.
7. Control of movement - motoric bases of behaviour.
8. Mechanisms of salt and water housholding. Adaptations to dry environment.

Recommended literature:
Hill, Wyse, Anderson : Animal Physiology, Sinauer Assoc., 2008

Course language:
english

Notes:

Course assessment
Total number of assessed students: 76

N	P
0.0	100.0

Provides: prof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 25.03.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ BGEE/11	**Course name:** Biogeography

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: distance, present

Number of ECTS credits: 6

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

Course level: III.

Prerequisities:

Conditions for course completion:
Oral examination.

Learning outcomes:
Broadened contemporary knowledge of the principles of distribution of living biota on Earth with regard to its history and evolution of global ecosystems. To apply modern methods of ecology, molecular biology and genetics to the study of the recent distribution of organisms

Brief outline of the course:
The subject concentrates on environmental and ecological perspectives to show how they have impacted the evolution, distribution and diversity of species. Updated to reflect current research, it involves short introduction to the discipline, then describes the environmental setting and basic biogeographic patterns, earth history and fundamental biogeographic processes, the evolutionary history of lineage and biotas, ecological biogeography, conservation biogeography, and the future of the discipline.

Recommended literature:
Darlington P.J., 1998: Zoogeography: The geographical distribution of animals. Krieger, USA, p. 1-690
Lomolino M.V., Brown J.H., Riddle B. R., 2005: Biogeography. Sinauer Associates, 1-845

Course language:
English language

Notes:

Course assessment
Total number of assessed students: 39

N	P
0.0	100.0

Provides: prof. RNDr. Martin Bačkor, DrSc., prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 10.12.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ BSP/04	**Course name:** Biospeleology

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: distance, present

Number of ECTS credits: 4

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

Course level: II., III.

Prerequisities:

Conditions for course completion:
Active participation in seminars and field trips, preparation of oral presentation to a selected topic, completion of semestral written examination, final oral examination.

Learning outcomes:
The main goal of the subject is to get basic knowledge on the diversity of the cave biota, relationships and adaptations to the specific environment, its role in the cave system and protection of the cave biota.

Brief outline of the course:
The subject covers morphology and systematics of the cave fauna and microflora, their adaptations to this specific habitat type, geographic distribution, functioning of the cave system and interactions between its components, human influence and protection of the cave biota.

Recommended literature:
Culver D. C., 1982: Cave life – evolution and ecology. Harvard University Press, Cambridge, Massachusetts and London
Culver D.C., White W.B., 2005: Encyclopedia of caves. Elsevier, 1-654
Vandel A., 1965: Biospeleology - the biology of cavernicolous animals. Pergamon Press, Oxford
Wilkens H., Culver D.C., Humphreys W.F., 2000: Subterranean Ecosystems. Ecosystems of the World, vol. 30. Elsevier, 1-791

Course language:

Notes:

Course assessment
Total number of assessed students: 86

A	B	C	D	E	FX	N	P
90.7	0.0	2.33	1.16	0.0	0.0	0.0	5.81

Provides: prof. RNDr. Ľubomír Kováč, CSc., RNDr. Andrea Parimuchová, PhD.

Date of last modification: 10.12.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ MET/04	**Course name:** Cell Metabolism

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Oral examination

Learning outcomes:
Broadening of the basic knowledge of metabolic processes for homeostasis maintenance in animal and human organism

Brief outline of the course:
Carbohydrates – structure, biological significance of mono-, di-, polysaccharides and its derivatives, pathways of carbohydrate synthesis and degradation, glycaemia regulation, clinical aspects of carbohydrate metabolism. Lipids – categories, metabolism, lipogenesis, lipolysis, the metabolic roles of the liver and adipose tissue. Ketogenesis. Regulation of carbohydrate and lipid metabolism. Plasma lipoprotein metabolism, hyper- and hypolipoproteinemias. Cholesterol metabolism, biochemical and clinical aspects of atherogenesis and atherosclerosis. Arachidonic acid – biological significance, formation and functions of eicosanoids, clinical correlations. Reactive oxygen and nitrogen species, oxidative metabolism, antioxidative systems. Metabolic pathways of protein degradation and amino acid transformation, special products of amino acid metabolism. Nitrogen metabolism, urea biosynthesis. Metabolism of porphyrins, purines and pyrimidines. Water metabolism and its disturbances. Metabolism of solutes. Mechanisms of metabolic processes regulation.

Recommended literature:
1. Devlin T.M.: Textbook of Biochemistry with Clinical Correlations. Wiley-Liss 2006
2. Bhagavan N.V., Chung-Eun Ha: Essentials of Medical Biochemistry. Elsevier 2011
3. Newsholme E., Leech T.: Functional Biochemistry in Health and Disease. Wiley-Blackwell 2010

Course language:

Notes:

Course assessment Total number of assessed students: 43	
N	P
0.0	100.0
Provides: doc. RNDr. Monika Kassayová, CSc.	
Date of last modification: 16.09.2021	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/COK/22	**Course name:** Certified training course

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Completion of a certified professional/training course.

Learning outcomes:
The PhD student acquires up-to-date scientific knowledge, develops the capabilities of scientific work and familiarizes himself with the methodologies of making scientific knowledge available. He confronts his own knowledge and skills with other course participants, develops the abilities of peer discussion in the given scientific field.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 4

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ CHR3/05	**Course name:** Chromatographic Separation Methods

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: distance, present

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Individual work. Solving the problem of chromatography according to the assignment
Examination.

Learning outcomes:
Basic and advanced theory of chromatographic separation methods and their possibilities and use in research and analytical practice.

Brief outline of the course:
Basic principles of chromatography. Chromatographic resolution, optimization of chromatographic parameters. Theory of liquid chromatography, classification. Stationary phases. Selectivity, sensitivity of HPLC detectors.. Fast LC chromatography. UPLC. Combined LC techniques. Comprehensive and multidimensional LC methods. Aplications.

Recommended literature:
Skoog D.A., Leary J.J.,Principles of Instrumental Analysis, Saunders, 1997.
Lehotay J., Separačné metódy v analytickej chémii,STU Bratislava 2009.
Scientific journal literature.

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 18

N	P
0.0	100.0

Provides: doc. RNDr. Taťána Gondová, CSc.

Date of last modification: 24.11.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ CRO1/03	**Course name:** Chronophysiology
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:** distance, present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course: 1.	
Course level: II., III.	
Prerequisities:	
Conditions for course completion: Active participation on practicals. Passing of the final oral examination.	
Learning outcomes: To outline the problematics of the time organization of biological processes and their significance in evolution of living organisms. To understand the mechanisms, ensuring the adaptation to regular changes in their environment with various periodicity, as well as of the common action of external and internal factors in control of the biological rhythms..	
Brief outline of the course: 1. Time structure of the physiological variables in animals. 2. Overview of the history of chronobiology. 3. Basic notions and division of biological rhythms. 4. Genetic basis and molecular mechanisms of the biological rhythms in animals. 5. Endogenous character of the biological rhythms. Localization of the biological clock. 6. Synchronsation of rhythms. Multioscillatory system of the body. 7. Model animals in study of biological rhythms. 8. Ultradian rhythms. 9. Circaannual (seasonal) rhythms. 10. Application of chronobiological principles in medicine. 11. Disturbations of the biological rhythms. The jet-lag syndrome. 12. Biological rhythms in shift-work. 13. The significance of biological rhythms in the evolution of living organisms.	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 109

A	B	C	D	E	FX	N	P
22.02	20.18	27.52	10.09	3.67	0.0	0.0	16.51

Provides: prof. RNDr. Beňadik Šmajda, CSc., RNDr. Natália Pipová, PhD.

Date of last modification: 21.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ CM/22	**Course name:** Citation in monograph
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 8	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Obtained citation registered in SCI or Scopus.	
Learning outcomes: Obtaining a citation demonstrates broad and very well-founded scientific knowledge in the researched field, based on the ability to formulate research questions, to reflect on a scientific problem in such a way that generates new knowledge. At the same time, a citation in an indexed source demonstrates the competence to communicate new knowledge, which is a significant contribution to scientific knowledge, at the highest expert level.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	
abs	n
0.0	0.0
Provides:	
Date of last modification: 08.11.2022	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ CZC/22	**Course name:** Citation in scientific journal published abroad

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Obtained citation in a foreign scientific journal.

Learning outcomes:
Obtaining a citation demonstrates broad and very well-founded scientific knowledge in the researched field, based on the ability to formulate research questions, to reflect on a scientific problem in such a way that generates new knowledge. At the same time, a citation in an indexed source demonstrates the competence to communicate new knowledge, which is a significant contribution to scientific knowledge, at the highest expert level.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ CDC/22	**Course name:** Citation in scientific journal published in the country of residence
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Citation in a national scientific journal	
Learning outcomes: Obtaining a citation demonstrates broad and very well-founded scientific knowledge in the researched field, based on the ability to formulate research questions, to reflect on a scientific problem in such a way that generates new knowledge. At the same time, a citation in an indexed source demonstrates the competence to communicate new knowledge, which is a significant contribution to scientific knowledge, at the highest expert level.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	

abs	n
0.0	0.0

Provides:	
Date of last modification: 08.11.2022	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ SCI/22	**Course name:** Citation registered in Science Citation Index

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

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Obtained citation registered in SCI or Scopus.

Learning outcomes:
Obtaining a citation demonstrates broad and very well-founded scientific knowledge in the researched field, based on the ability to formulate research questions, to reflect on a scientific problem in such a way that generates new knowledge. At the same time, a citation in an indexed source demonstrates the competence to communicate new knowledge, which is a significant contribution to scientific knowledge, at the highest expert level.

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: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/SPAV/22	**Course name:** Co-investigator of the applied research project

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Co-investigator of the applied research project

Learning outcomes:
The PhD student demonstrates the ability to participate in teamwork, to bring his own contribution to the solution of the project objective of applied research and to take responsibility for assigned tasks. By solving an applied research project, he acquires the ability to implement the project objective according to the established procedure, to follow the project schedule, to coordinate his own activities with colleagues, to participate in the creation of applied research outputs. The PhD student gains valuable experience from the practical course of a grant project with a focus on applied research.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 2

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ SMP/22	**Course name:** Co-worker of project supported by international grant schemes
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Membership in the research team of an international project.	
Learning outcomes: Active involvement by solving a specific task within a team of international project solvers. The PhD student demonstrates the ability to work in a team, take responsibility for the assigned task, adhere to the time schedule and fulfill the project outputs. The PhD student gains personal experience from the implementation of an international project, participation in its key stages, creation of measurable outputs, grant funding of science.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 3	

abs	n
100.0	0.0

Provides:
Date of last modification: 08.11.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ SDP/22	**Course name:** Co-worker of project supported by national grant schemes
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Co-investigator of the domestic project	
Learning outcomes: The PhD student demonstrates the ability to participate in teamwork, to bring his own contribution to the solution of the project objective and to take responsibility for the assigned tasks. By solving the domestic project, he acquires the ability to implement the project intention according to the established procedure, to follow the project schedule, to coordinate his own activities with colleagues, to participate in the creation of outputs. The PhD student gains valuable experience from the practical course of the grant project.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 33	

abs	n
100.0	0.0

Provides:	
Date of last modification: 08.11.2022	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ PFYZ/15	**Course name:** Comparative animal physiology
Course type, scope and the method: **Course type:** Lecture **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** distance, present	
Number of ECTS credits: 3	
Recommended semester/trimester of the course: 1.	
Course level: II., III.	
Prerequisities:	
Conditions for course completion: Working out the given themes of the report. Passing the final oral examination.	
Learning outcomes: The students receive an overview on the significance of physiological adaptational mechanisms to the various life conditions on the individual levels of the phylogenesis.	
Brief outline of the course: 1. Phylogeny of food acquisition, processing and utilization in animals. 2. Energy metabolism (factors influencing the metabolic rate; physiology of physical work; principles of aerobic performance in various species). 3. Thermal housekeeping (poikilothermic and homoiothermic strategies. 4. Life in cool environment). 5. The phylogenic development of the nervous system. 6. Sensory abilities of the animals. 7. Evolution of the brain. Endocrinal and neuroendocrinal regulation of body functions in evertebrates and vertebrates. 8. Reproductive systems of the animals. 9. Navigation in animals. Motoric basics of animal behaviour. 10. The mechanisms of the exchange of respiratory gases in a phylogenetic view. 11. Comparison of circulatory systems in animals. 12. Water- and mineral housekeeping in terrestrial and aquatic animals. 13. Excretory systems of the animals.	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 28

A	B	C	D	E	FX	N	P
32.14	17.86	0.0	7.14	3.57	0.0	0.0	39.29

Provides: prof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 21.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/DK/04	**Course name:** Conference in the country of residence

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Active participation in the home conference.

Learning outcomes:
By actively participating in the national scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence in using existing theories and concepts in an innovative way, as well as generating new original scientific knowledge and communicating research results to a wider audience using adequate means and through the Slovak language.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 167

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ DZS/14	**Course name:** Dissertation examination
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities: ÚBEV/VEK3/11	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 74

N	P
0.0	100.0

Provides:
Date of last modification: 03.05.2015
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ EET1/03	**Course name:** Ecological 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: distance, present

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:
Field excursion
Oral examination.

Learning outcomes:
To analyze and comprehend to priciples of behavioral strategies in a given ecosystem from the point of view of sociobiology

Brief outline of the course:
The topic of sociobiology and its relations to other disciplines. The evolution of social behavior in animals and in man. Strategies of social interactions and formation of groups in relation to the ecosystem. The choice of appropriate social arrangement, sexual partner, reproductional and parental strategy. Competition among indiviuals and sexes.

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 215

A	B	C	D	E	FX	N	P
86.98	3.72	5.12	0.47	0.0	0.0	0.0	3.72

Provides: RNDr. Igor Majláth, PhD.

Date of last modification: 16.05.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ EKC1/00	**Course name:** Ecology of mammals

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: distance, present

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:

Learning outcomes:
To understand a) ekological position of mammal groups in ecosystems and their importance in ecological networks; b) anthropogenic impacts on mammals and their coenoses; c) population ecology of some mammal groups

Brief outline of the course:
1. Factors of environment. Temperature. Water. Snow. Light. Adaptations. Hypothermy. Hibernation, aestivation, letargy. 2. Reseources. Food. Food strategies and specialistaions. 3. Habitat and nika. Interactions. 4. Komensalism. Mutualism. Kooperation. Competion. Predator and prey. 5. Mammals and plants. Food webs. 6. Teritoriality. Home range. Lek. Metapopulations. 7. Reproduction. Mating systems. Oestrus. r- and K- strategy. Monogamy, polygamy. 8. Dispersion. Migration. Habitat selection. Individual. Population. Natality, mortality. Kohorts. Population dynamics and cycles. Gradations. 9. Mammal diversity. Island biogeografy. Macroecology. Gradients. Long-term studies. 10. Habitat fragmentations. Synanthropy. 11. Conservation of mammals. Wind energy. Mammal introductions. Repatriations, reintroductions. Expansions. 12. Global climate changes and mammals. Protected areas. 13. Vulneralble species. Minimal viable population.

Recommended literature:
Feldhamer G., Drickamer L., Vessey SH., Merritt JF., 2000. Mammalogy: Adaptation, Diversity and Ecology. McGraw Hill Hardback, 563 pp.
Vlasák P., 1986. Ekologie cicavcu. Academia, Praha, 292 pp.

Course language:

Notes:

Course assessment
Total number of assessed students: 261

A	B	C	D	E	FX	N	P
64.37	16.86	11.49	2.3	2.3	0.0	0.0	2.68

Provides: doc. RNDr. Marcel Uhrin, PhD., univerzitný profesor
Date of last modification: 20.09.2021
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ PDS/22	**Course name:** Elaboration and defence of the thesis, successful completion of the dissertation examination
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Obtaining the required number of credits in the prescribed composition according to the UPJŠ study regulations, preparation and defense of the thesis, successfully completed dissertation examination.	
Learning outcomes: The PhD student demonstrated the prerequisites for successful continuation of the study by fulfilling the conditions prescribed by the study regulations for the study and scientific part of the doctoral study related to the topic of the dissertation.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 12	

N	P
0.0	100.0

Provides:
Date of last modification: 08.11.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ODZP/22	**Course name:** Elaboration and defense of the work, successfully completed dissertation exam

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

Number of ECTS credits: 30

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
The Dissertation thesis is the result of the student's own scientific research. It must not show elements of academic fraud and must meet the criteria of correct 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 constituents. Fulfillment of the criteria is verified mainly in the process of supervising and in the process of the thesis defense. Failure to do so is grounds for disciplinary action.

Learning outcomes:
The Dissertation thesis has elements of a scientific work and the student demonstrates extensive mastery of the 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 field of study, as well as the ability to apply them in an original way in solving selected problems of the field of study. The student demonstrates the ability of independent scientific work in terms of content, formal and ethical aspects. Further details of the Dissertation thesis are determined by Directive no. 1/2011 on the essential prerequisites of final theses and by the Study Rules of Procedure at UPJŠ in Košice for doctoral studies.
The doctoral student demonstrated the ability and readiness for independent scientific and creative activity in the field of study of philology in accordance with the expectations of the relevant qualification framework and the profile of the graduate.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 11

N	P
0.0	100.0

Provides:
Date of last modification: 08.11.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/VPZP/22	**Course name:** Elaboration of reviewer report

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

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Elaboration of reviewer report

Learning outcomes:
The PhD student demonstrates broad and scientifically based knowledge in the field of study, as well as knowledge of a wide range of methods and approaches. Demonstrates the ability to critically assess a professional problem and its proposed solution, as well as to evaluate it and possibly recommend another solution. He applies knowledge and skills from the field of pedagogical sciences to his own field.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/END/04	**Course name:** Endocrinology

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 1 **Per study period:** 14 / 0s
Course method: distance, present

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Oral examination. Application of knowledge from endocrinology to the solved problem of the doctoral student's thesis.

Learning outcomes:
To broaden the student´s knowledge of endocrine organ and tissue function at all levels of the animal and human organism

Brief outline of the course:
1. Chemical structure of hormones, general principles of hormone action.
2. Hormone biosynthesis, secretion, transport and degradation.
3. Hormone-receptor interaction, receptor types, transmission of hormonal signal into the cell.
4. Neuroendocrinology, hypothalamic-pituitary system.
5. Hormones of thyroid gland, regulation of thyroid secretion.
6. Parathyroid glands, hormonal regulation of calcium and phosphorus homeostasis.
7., 8. Hormones of adrenal glands – adrenal cortex and medulla.
9. Pancreatic islets, regulation of metabolic processes.
10. Hormones and regulatory peptides of gastrointestinal tract.
11. Neuroendocrine regulation of food intake and body mass, endocrine activity of adipose tissue.
12. Hormones of male and female reproduction, hormonal regulation of pregnancy and lactation.
13. Pineal gland. Principles of hormonal integration.

Recommended literature:
1. Goodman H.M.: Basic Medical Endocrinology. Academic Press 2009
2. Jameson J.L.: Harrison´s Endocrinology. McGraw-Hill Companies Inc., 2010
3. Gardner D.G., Shoback D.: Greenspan´s Basic and Clinical Endocrinology. McGraw-Hill Companies Inc., 2011

Course language:

Notes:

Course assessment Total number of assessed students: 15	
N	P
0.0	100.0
Provides: doc. RNDr. Monika Kassayová, CSc.	
Date of last modification: 23.11.2021	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: III.

Prerequisities:

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

Learning outcomes:
The development of students´ language skills - reading, writing, listening, speaking; improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects; development of pragmatic competence - students acquire skills for effective and purposeful communication, with focus on Academic English and English for specific/professional purposes, level B2.

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

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

Course language:
English, level B2 according to CEFR

Notes:

Course assessment
Total number of assessed students: 777

N	Ne	P	Pr	abs	neabs
0.0	0.0	45.82	0.0	54.05	0.13

Provides: Mgr. Zuzana Kolaříková, PhD.

Date of last modification: 11.09.2023

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

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

Course assessment
Total number of assessed students: 732

N	Ne	P	Pr	abs	neabs
0.27	0.0	93.72	1.09	4.78	0.14

Provides: Mgr. Zuzana Kolaříková, PhD.

Date of last modification: 05.02.2024

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ EFYZ/04	**Course name:** Environmental physiology

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: Per study period: 15s
Course method: distance, present

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
oral exam

Learning outcomes:
The aim of this subject is to explain the influence of environmental factors and mechanisms of adaptations in animals and humans.

Brief outline of the course:
1. Definition and classification of adaptations.
2. Regulation of energy homeostasis.
3. Molecular basis of food intake regulation.
4. Energy deficit, factors influencing survival in fasting.
5. Increased energy intake and its consequences.
6. High temperature tolerance, limits of survival.
7. Adaptations to low temperature.
8. Survival in hypobaric environment.
9. Hyperbaria and its effects.
10. Effects of hypergravity and microgravity.
11. Electromagnetic radiation, the significance and effects on living organisms.
12. Xenobiotics and their metabolism.
13. The effects of environmental xenobiotics on organisms.

Recommended literature:
Piantadosi C.A.: The Biology of Human Survival. Oxford University Press, 2003
Ashcroft F.: Life at the Extremes. University of California Press, 2000
Kamler K.: Surviving the Extremes. Penguin Books, 2004

Course language:

Notes:

Course assessment Total number of assessed students: 7	
N	P
0.0	100.0
Provides:	
Date of last modification: 22.09.2023	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ETO/04	**Course name:** Etológia
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 15s **Course method:** distance, present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 27

N	P
0.0	100.0

Provides: RNDr. Igor Majláth, PhD.
Date of last modification: 16.05.2021
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ EXON/04	**Course name:** Experimental oncology

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: 15 **Per study period:** 210
Course method: distance, present

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
oral exam

Learning outcomes:
To clarify the general mechanisms and principles of neoplastic transformation and possibilities of its modulation in experimental animals.

Brief outline of the course:
1. Carcinogenesis, molecular basis of carcinogenesis.
2. Oncogens, tumour supressor genes.
3. Cell cycle regulation.
4. Types of cell death.
5. Tumour microenvironment.
6. Cancer cell metabolism.
7. Tumour classification.
8. Classification of carcinogens.
9. In vitro and in vivo models of carcinogenesis.
10. Possibilities of cancer prevention, risk factors.
11. Mechanisms of cancer chemoprevention.
12. Natural and synthetic chemopreventive substances.
13. Clinical chemoprevention trials.

Recommended literature:
Scientific journal articles.
Weinberg R.A, The biology of cancer. Garland Science, Taylor and Francis Group, LLC, 2007.

Course language:

Notes:

Course assessment Total number of assessed students: 18	
N	P
0.0	100.0
Provides: doc. RNDr. Bianka Bojková, PhD.	
Date of last modification: 14.07.2022	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ IMU/04	**Course name:** Immunology
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 20s **Course method:** distance, present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course: 2., 4.	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 40	

N	P
0.0	100.0

Provides: RNDr. Vlasta Demečková, PhD., univerzitná docentka
Date of last modification: 22.09.2023
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ NEM/04	**Course name:** Implementation of new experimental methodology
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment

Total number of assessed students: 108

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ZC/22	**Course name:** Internacional Journal

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

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a foreign journal as an author/co-author.

Learning outcomes:
By publishing in a foreign journal as an author/co-author, the PhD student demonstrates a high level of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 4

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ MKZ/22	**Course name:** International Conference

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

Number of ECTS credits: 10

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Active participation in an international conference abroad.

Learning outcomes:
By actively participating in an international scientific conference abroad, the phD student demonstrates a high level of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through a foreign language.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 12

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ZSP1/22	**Course name:** International Study Stay less than 30 Days

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Completion of a foreign study stay lasting less than 30 days.

Learning outcomes:
By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 4

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ ZSP2/22	**Course name:** International Study Stay more than 30 Days

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

Number of ECTS credits: 10

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Completion of a foreign study stay lasting more than 30 days.

Learning outcomes:
By completing the study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 7

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/DKZU/22	**Course name:** International conference taking place in the country of residence

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Active participation in a national conference with foreign participation.

Learning outcomes:
By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 6

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ SIG/22	**Course name:** Member of the internal project team

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

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Co-worker of project supported by internal grant schemes (VVGS)

Learning outcomes:
The PhD student demonstrates the ability to participate in teamwork, to bring his own contribution to the solution of the project objective within the internal grant system at UPJŠ. By solving the internal VVGS grant, he acquires the ability to implement the project plan according to the established procedure, adhere to the project schedule, coordinate his own activities with colleagues, and participate in the creation of outputs. The PhD student gains valuable experience from the practical course of the grant project.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 11

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/POVK/22	**Course name:** Membership in conference organising commiittee

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

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Work in the organizing committee of the conference

Learning outcomes:
By working in the organizing committee of the conference, the PhD student demonstrates the abilities and competences to organize a scientific or professional event independently or in a team, to manage the implementation in terms of time and content, to communicate effectively verbally and in writing using various technical means as needed, including in a foreign language at a professional level with various types of people, if necessary, correctly recommend solutions or make independent decisions.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 3

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MMB/14	**Course name:** Methods of molecular biology

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Six written and electronic exercises regarding course work within duration of the course

Learning outcomes:
Students will be able to analyze DNA and protein sequences. Further, they will be able to compare and predict protein characteristics at the level of primary and secondary structure. Students will be able to design primers and mutations for protein cDNA.

Brief outline of the course:
Analysis of recombinant DNA molecules, electrophoresis, antibody protein detection, description and techniques of gene manipulation (mutations and genetic diseases).
Week 1 - Complete coding sequence (CDS) of a gene or protein.
Week 2 - BLAST search and sequence comparison.
Week 3 - Calculation of protein properties.
Week 4 - Assignment - analysis of selected protein - comparison of sequences from different animal or plant species.
Week 5 - PCR.
Week 6 - Designing basic primers.
Week 7 - Recombinant DNA.
Week 8 - Assignment - design of own primers for targeted mutation in protein.
Week 9 - Protein visualization.
Week 10 - RasMol and protein animation.
Week 11 - Individual assignments

Recommended literature:
B. Alberts, A. Johnson, J. Lewis, M. Raff, K. Roberts, P. Walter: Molecular Biology of the Cell, Garland Science 2008 (Fifth Ed.)
Current Protocols in Molecular Biology, Wiley publishers.
Mac Vector 11.0 softwer Manual
http://www.ncbi.nlm.nih.gov
http://www.ncbi.nlm.nih.gov/pubmed
http://www.ncbi.nlm.nih.gov/sites/gquery
http://blast.ncbi.nlm.nih.gov/Blast.cgi

http://www.cybertory.org/exercises/primerDesign/index.html
http://www.fermentas.com/templates/files/tiny_mce/media_pdf/3_PCR_Troubleshooting.pdf
http://igene.invitrogen.com/products/selector/vectors
http://www.genomics.agilent.com
http://www.origene.com/cdna/
http://www.rcsb.org/pdb/home/home.do
http://www.rasmol.org/software/RasMol_2.7.4/

Course language:
Slovak and English.

Notes:

Course assessment
Total number of assessed students: 26

N	P
0.0	100.0

Provides: doc. RNDr. Katarína Štroffeková, PhD., prof. RNDr. Erik Sedlák, DrSc., RNDr. Alexandra Zahradníková, PhD.

Date of last modification: 21.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/MONB/22	**Course name:** Monograph

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

Number of ECTS credits: 20

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Co-author of the monograph.

Learning outcomes:
By publishing a monograph, the PhD student demonstrates a high level of ability to identify, evaluate, and apply correct scientific methods or research methodology. It demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The doctoral student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/MONA/22	**Course name:** Monograph in a renowned publishing house

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

Number of ECTS credits: 40

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Co-author of a monograph in a renowned publishing house.

Learning outcomes:
By publishing a monograph in a renowned publishing house, the PhD student demonstrates a high level of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The doctoral student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ NAT/10	**Course name:** Neuroanatomy

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: distance, present

Number of ECTS credits: 3

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
1. compulsory participation on Anatomy lectures, max. 3 absences per semester
2. oral exam during summer exam period. Exam grade depends on the gained knowledge on the structure, functions and spatial organization of individual parts of nervous system.

Learning outcomes:
After successful completion of the lectures, student masters the knowledge on anatomy and organization of central and peripheral nervous system. Student understands the particular functions of nervous system in homeostasis, sensory perception, motor functions, as well as in processing of signal at various levels of nervous system. Successful completion of the lectures prepare students for further study of Neurophysiology, Neuropsychology, etc.

Brief outline of the course:
1. introduction to neuroanatomy, basic principles of functional neuroanatomy, classification of the nervous system,dividing of the Nervous System (CNS, PNS, autonomous NS, somatic NS),
2. the spinal cord and nervous tracts
3. the brainstem: medulla oblongata, pons, mesencephalon
4. peripheral nervous system: spinal and cranial nerves
5. the cerebellum
6. the diencephalon - topography, organization, basal ganglia
7. the telencephalon - cerebral cortex (paleopalium, archipallium), limbic system
8. the telencephalon - neocortex: cortical centers
9. the telencephalon - neocortex: associative cortex
10. the telencephalon, cerebral cortex (paleopallium, archipallium, neopallium) and basal ganglia
11. ventricular system of the brain, meninges and blood supply,
12. autonomic nervous system: symphatetic and parasymphathetic
13. sensory organs

Recommended literature:
Lovásová, K., Kluchová, D., Boleková, A.:Neuroanatómia pre psychológov, Košice, Equilibria, UPJŠ 2015
Miklošová M.: Anatómia, Košice, Equilibria, UPJŠ 2011

Druga R., Grim M., Dubový P.: Anatomie centrálního nervového systému Galén Karolinum, 2011
Ševc, J., Mochnacký, F.: Anatomické termíny pre jednoodborové a medziodborové štúdium biológie, UPJŠ, e-book (https://unibook.upjs.sk/sk), 2020

Course language:

Notes:

Course assessment
Total number of assessed students: 32

A	B	C	D	E	FX	N	P
18.75	9.38	6.25	0.0	0.0	3.13	0.0	62.5

Provides: doc. RNDr. Juraj Ševc, PhD.

Date of last modification: 07.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ NEU/04	**Course name:** Neuronal basis of behavior.

Course type, scope and the method:
Course type: Lecture
Recommended course-load (hours):
Per week: Per study period: 15s
Course method: distance, present

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Oral examination.

Learning outcomes:
This subject is aimed to provide knowledge on the correlation between processes in

Brief outline of the course:
1. Neuronal mechanisms of learning and memory.
2. Neurochemistry of emotions.
3.The role of the left and right hemispheres in control of various types of behaviour.
4. Neurodegenerative processes in the CNS.
5. Biological basis of patological deviations of behaviour in humans.
6. Neurophysiology of addiction.
7. Neuronal control of eating behaviour.
8. Neurobiology of sleep.
9. Neuaral control of sexual behaviour.
10. Control of circadian rhythms by CNS.
11. Brains centers of speach and its disorders.
12. Biological origin of mental disorders.
13. Genetic bases of behaviour.

Recommended literature:
A.Wickens: Foundations of Biopsychology. Pearson/Prentice Hall, Harlow,London,...,2005.
T.J.Carew: Behavioral Neurobiology. Sinauer Assoc.,Sunderland (USA), 2000.
R.P.Kesner, J.L.Martinez: Neurobiology of learning and memory. Academic Press,Elsevier, Amsterdam,....,2007.

Course language:

Notes:

Course assessment Total number of assessed students: 18	
N	P
0.0	100.0
Provides: prof. RNDr. Beňadik Šmajda, CSc.	
Date of last modification: 21.10.2021	
Approved: prof. RNDr. Beňadik Šmajda, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/NRZ/22	**Course name:** Non-reviewed collections of papers and monographs published abroad or in the country of residence

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
A publication published in a non-reviewed foreign or national journal as an author/co-author.

Learning outcomes:
By publishing in a non-reviewed foreign or national journal as an author/co-author, the PhD student demonstrates the ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The phD student demonstrates the ability to finalize his own thoughts in a written speech.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 8

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ PAR2/03	**Course name:** Parasitology II

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: distance, present

Number of ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: II., III.

Prerequisities:

Conditions for course completion:
active participation in practical exercises
presentation of seminar work
continuous written examinations
oral examination

Learning outcomes:
After completing the course Parasitology II. students will demonstrate
- knowledge of diagnostic methods commonly used in parasitology
- practical use of methods commonly used in parasitology
- evaluate the method of detection and identification on the basis of knowledge of parasite life cycles

Brief outline of the course:
The course builds on the knowledge acquired in the Parasitology I. course, expands them and includes vectors transmitted organisms. It focuses on mastering the methods used in parasitology.
Syllabus:
Week 1: Parasitic adaptations
Week 2: Parasite-host interactions
Week 3: Behavioral strategies of parasites
Week 4: Effect of the parasite on host behavior
Week 5: Vector-borne viruses
Week 6: Vector-borne bacteria
Week 7: Vector-borne parasites
Week 8: Laboratory diagnostic methods
Week 9: Flotation and serological methods
Week 10: Molecular detection and identification
Week 11: Methods of capturing vertebrates for parasitological purposes
Week 12: Methods of capturing invertebrates for parasitological purposes
Week 13: Parasitological autopsy

Recommended literature:
1. Roberts, Janovy Jr. Nadler,Foundations of Parasitology, 9th edition, 2012 McGraw-Hill Education, 701pp.

2. Loker, Parasitology: A Conceptual Approach, 2015, Garland Science, 560 pp.

Course language:
slovak, english

Notes:

Course assessment
Total number of assessed students: 74

A	B	C	D	E	FX	N	P
74.32	8.11	5.41	1.35	1.35	1.35	0.0	8.11

Provides: RNDr. Viktória Majláthová, PhD., univerzitná docentka, RNDr. Mikuláš Oros, PhD.

Date of last modification: 17.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

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

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

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

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

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

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 120

abs	n	neabs
98.33	0.0	1.67

Provides: doc. PaedDr. Renáta Orosová, PhD.

Date of last modification: 12.03.2024

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/RZ/22	**Course name:** Peer-reviewed collections of papers and monographs published abroad or in in the country of residence

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
A publication published in a peer-reviewed foreign or national proceedings as an author/co-author.

Learning outcomes:
By publishing in a peer-reviewed foreign or national journal as an author/co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 16

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/POP/22	**Course name:** Popularisation of science

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Active involvement in the popularization of science.

Learning outcomes:
Demonstrated ability to present science to the lay public, use interactive methods of scientific communication, identify the target group and adapt the communication language to the level of professional knowledge. A PhD student is able to arouse interest and motivate specific target groups in the field of his scientific work, but also in the wider context of science.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 28

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/VYS/22	**Course name:** Presentation at the seminar

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Presentation at the seminar

Learning outcomes:
By actively participating in the seminar, the PhD student demonstrates the ability to identify, evaluate, and apply correct scientific methods or research methodology in his field of study. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence in using existing theories and concepts in an innovative way, as well as generating new original scientific knowledge and communicating research results by adequate means and through Slovak or a foreign language.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 29

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ZRIG/22	**Course name:** Principal investigator of an internal grant (VVGS)

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

Number of ECTS credits: 10

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Principal investigator of an internal grant (VVGS)

Learning outcomes:
The PhD student demonstrates the ability to process a successful application for his own research problem within the internal grant system at UPJŠ. Acquires skills with the design of research stages, their time schedule, measurable outputs and adequate distribution of funds. The very solution of the internal VVGS grant acquires the ability to implement the project intention according to the established procedure, to be responsible for achieving the set outputs. As a responsible researcher, the PhD student acquires competencies in project management, its administration, and presentation of results.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 13

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PsVU/17	**Course name:** Psychology for University Lecturers

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

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

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

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

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

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

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 87

abs	n	neabs
98.85	0.0	1.15

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 24.06.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/Q1SA/22	**Course name:** Q1 journal as co-author

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

Number of ECTS credits: 30

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q1 as co-author.

Learning outcomes:
By publishing in a journal of category Q1 as a co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

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: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/Q11A/22	**Course name:** Q1 journal as first or corresponding author

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

Number of ECTS credits: 40

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q1 as first or corresponding author.

Learning outcomes:
By publishing in a journal of category Q1 as the first or corresponding author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Q2SA/22	**Course name:** Q2 journal as co-author

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

Number of ECTS credits: 20

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q2 as co-author.

Learning outcomes:
By publishing in a journal of category Q2 as a co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 10

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Q21A/22	**Course name:** Q2 journal as first or corresponding author

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

Number of ECTS credits: 30

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q2 as first or corresponding author.

Learning outcomes:
By publishing in a journal of category Q2 as the first or corresponding author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 8

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Q3SA/22	**Course name:** Q3 journal as co-author

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

Number of ECTS credits: 15

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q3 as co-author

Learning outcomes:
By publishing in a journal of category Q3 as a co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Q31A/22	**Course name:** Q3 journal as first or corresponding author

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

Number of ECTS credits: 25

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q3 as first or corresponding author

Learning outcomes:
By publishing in a journal of category Q3 as the first or corresponding author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Q4SA/22	**Course name:** Q4 journal as co-author

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

Number of ECTS credits: 10

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q4 as co-author.

Learning outcomes:
By publishing in a journal of category Q4 as a co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/Q41A/22	**Course name:** Q4 journal as first or corresponding author

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

Number of ECTS credits: 20

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Publication accepted in a journal of category Q4 as first or corresponding author.

Learning outcomes:
By publishing in a journal of category Q4 as the first or corresponding author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 2

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ VPZ/22	**Course name:** Scientific work after sending to the editorial office
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion: Scientific work after being sent to the editorial office as an author/co-author.	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 7	

abs	n
100.0	0.0

Provides:
Date of last modification: 08.11.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ VKH1/03	**Course name:** Selected topics in herpetology

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: distance, present

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:
Field excursion
Oral examination.

Learning outcomes:
To broaden the knowledge of students on evolution, taxonomy, morphology, ecology and ecology of reptiles aquired before in the subject Zoology.

Brief outline of the course:
Systematical overview of amphibia and reptilia with a classification on species level. Phylogenetical development of amphibia and reptilia. Charcteristics of morphological and ecophysiological adaptations. Adaptaions on the significant abiotic and biotic factors (food, tepmerature,substrate, humidity, etc.). Selected aspects of population dynamics of some groups. Behavioral manifestations of amphibia and reptilia from a comparative aspect.

Recommended literature:
1. BARUŠ V. a kol.: Reptiles-Reptilia (Fauna of the ČSFR),Prague, 1992 (in Czech)
2. BARUŠ V. a kol.: Amphibia (Fauna of the ČSFR). Prague,1992. (in Czech)
3. OLIVA O., HRABĚ S., LÁC J. : Vertebrates of Slovakia I. Bratislava, 1968 (in Slovak
4. ROČEK Z.: Studies in Herpetology. Praha, 1986.
5. ZWACH I. : Our species of amphibia and reptilia on the photograph. Prague,1990.
6. DIESENER G., REICHHOLF J.: Amphibia and reptilia. Bratislava,1997

Course language:

Notes:

Course assessment
Total number of assessed students: 162

A	B	C	D	E	FX	N	P
88.89	4.32	2.47	0.0	0.0	0.0	0.0	4.32

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

Date of last modification: 16.05.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ SSOL/04	**Course name:** Self-motivated Study on Scientific Literature
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** distance, present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 286	

abs	n
100.0	0.0

Provides:
Date of last modification:
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

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

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

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

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

Course language:

Notes:

Course assessment
Total number of assessed students: 187

abs	n
100.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 08.11.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/VPSV/22	**Course name:** Supervision of Student's Scientific Activity

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

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Supervision of Student's Scientific Activity

Learning outcomes:
By guiding a student within the SOČ or ŠVOČ, the PhD student demonstrates broad and scientifically based knowledge in the field of study, as well as knowledge of a wide range of methods and approaches. Demonstrates the ability to critically assess a professional problem and its proposed solution, as well as to evaluate it and possibly propose another solution. He applies knowledge and skills from the field of pedagogical sciences to his own field.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n
0.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ PPC1/22	**Course name:** Teaching activities 1h/s

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Direct teaching activity 1 semester hour

Learning outcomes:
Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.

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: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ PPC2/22	**Course name:** Teaching activities 2 h/s

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Direct teaching activity 2 semester hours

Learning outcomes:
Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 6

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ PPC3/22	**Course name:** Teaching activities 3 h/s

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

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Direct teaching activity 3 semester hours

Learning outcomes:
Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.

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: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ PPC4/22	**Course name:** Teaching activities 4 h/s

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

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Direct teaching activity 4 semester hours

Learning outcomes:
Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 11

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/KZP/22	**Course name:** Thesis consultant

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Final thesis consultant.

Learning outcomes:
By consulting the final thesis, the PhD student demonstrates broad and scientifically based knowledge in the field of study, as well as knowledge of a wide range of methods and approaches. Demonstrates the ability to critically assess a professional problem and its proposed solution, as well as to evaluate it and possibly propose another solution. He applies knowledge and skills from the field of pedagogical sciences to his own field.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 16

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/VZP/22	**Course name:** Thesis supervising

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

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:
Supervisor of the final thesis.

Learning outcomes:
By supervising the final thesis, the PhD student demonstrates broad and scientifically based knowledge in the field of study, as well as knowledge of a wide range of methods and approaches. Demonstrates the ability to critically assess a professional problem and its proposed solution, as well as to evaluate it and possibly propose another solution. He applies knowledge and skills from the field of pedagogical sciences to his own field.

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 6

abs	n
100.0	0.0

Provides:

Date of last modification: 08.11.2022

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/UK/17	**Course name:** Urbánna ekológia

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: distance, present

Number of ECTS credits: 3

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

Course level: II., III.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 37

A	B	C	D	E	FX	N	P
89.19	0.0	0.0	0.0	0.0	0.0	0.0	10.81

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

Date of last modification: 20.09.2021

Approved: prof. RNDr. Beňadik Šmajda, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ VMESd/17	**Course name:** Vývinové a molekulárne mechanizmy v evolúcii stavovcov
Course type, scope and the method: **Course type:** Lecture **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** distance, present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 3

N	P
0.0	100.0

Provides: doc. RNDr. Martin Kundrát, PhD.
Date of last modification: 19.02.2022
Approved: prof. RNDr. Beňadik Šmajda, CSc.