University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Applied entomology **AEN1/03** Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present **Number of credits: 5** Recommended semester/trimester of the course: 1. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 125 В \mathbf{C} D Ε FX Α 51.2 37.6 8.8 0.8 1.6 0.0 Provides: doc. RNDr. L'ubomír Panigaj, CSc. Date of last modification: 23.02.2018 **Approved:** Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KFaDF/ Course name: Ancient Philosophy and Present Times AFS/05 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 31 В \mathbf{C} D Ε FX Α 80.65 6.45 6.45 6.45 0.0 0.0 Provides: Doc. PhDr. Peter Nezník, CSc. Date of last modification: 31.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Biopharmacology

BFA1/03

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Written test.

Oral exmanitation.

Learning outcomes:

To provide the students with basic knowledge on the classification and mechanism of action of the most important pharmaceuticals

Brief outline of the course:

Pharmaceutical principles. Classification of drugs. Absorption, biotransformation and excretion of drugs from the organism. Pharmacogenetics. Molecular mechanisms of drug effects. Drugreceptor interactions. Chronic administration of drugs. Teratogenity and cancerogenity of drugs. Development and introduction of drugs for clinical use. Principle of chronopharmacology

Recommended literature:

Clark, W. G., Braber, D.C., Johnen, A.R.: Goth's medical pharmacology. Mosby Year Book, 1992

Course language:

Course assessment

Total number of assessed students: 230

A	В	С	D	Е	FX
15.22	24.35	23.91	16.96	17.39	2.17

Provides: doc. RNDr. Monika Kassayová, CSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Biospeleology

BSP/04

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

active participation on the seminars and field trips preparation of oral presentation to the selected topic semestral written test 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:

Course assessment

Total number of assessed students: 67

A	В	С	D	Е	FX
95.52	0.0	2.99	1.49	0.0	0.0

Provides: prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Cytogenetics and Karyology

CK1/03

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:

written tests, protocols, oral examination

Learning outcomes:

To gain knowledge and experience in genetic processes at the cell level using the newest scientific findings of cytogenetics and moleculoar cytology. To get acquainted in detail with the results comming from human genome mapping.

Brief outline of the course:

Organisation of eukaryotic genome. Nuclear skeleton. Nucleolus, nucleolar skeleton. Chromatin structure and changes of chromatin. Levels of DNA organisation in cell nucleus. Chromosomes. Polythene chromosomes. Cell cycle. Genetic regulation of a cell cycle. Genetic regulation of cell differentiation. Apoptosis. Telomeres and function of telomerase. Molecular cytology. Basic characteristics of the Human genom project - what we can learn from it?

Recommended literature:

Russel, J.P.: Genetics, Third Edition, Harper Collins Publisher,

New York 1992

Periodicals

Internet sources

Course language:

Course assessment

Total number of assessed students: 1207

A	В	С	D	Е	FX	N	P
24.86	14.66	15.49	14.83	17.4	11.76	0.0	0.99

Provides: prof. RNDr. Eva Čellárová, DrSc., RNDr. Katarína Bruňáková, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Chronophysiology

CRO1/03

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

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: II., III.

Prerequisities:

Conditions for course completion:

Oral examination.

Learning outcomes:

To outline the problematics of the time organisation of biological processes and their significance in evolution of living organisms

Brief outline of the course:

Time structure of physiological variables in animals and man. Basic notions and categories of biological rhythms. The significance of biological rhythms in the evolution of living things. The genetic basis and molecular mechanisms of biological clocks in animals. The endogenous character of biological rhythms. The multioscillatory system of the organism. The significance of circadian and seasonal rhthms for the animal and human life. The application of chrono-physiological principles.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 86

A	В	С	D	Е	FX	N	P
22.09	22.09	29.07	11.63	4.65	0.0	0.0	10.47

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

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/

Course name: History of Philosophy 2 (General Introduction)

DF2p/03

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 738

A	В	С	D	Е	FX
60.84	13.82	12.6	8.67	3.39	0.68

Provides: doc. PhDr. Pavol Tholt, PhD., mim. prof., Doc. PhDr. Peter Nezník, CSc., PhDr.

Katarína Mayerová, PhD., doc. Mgr. Róbert Stojka, PhD.

Date of last modification: 31.08.2017

University: P. J	. Šafárik Univers	sity in Košice					
Faculty: Faculty	y of Science						
Course ID: ÚB DPO/14	Course ID: ÚBEV/ Course name: Diploma Thesis and its Defence DPO/14						
Course type: Recommended	ope and the med course-load (he retudy period:						
Number of cree	dits: 20						
Recommended	semester/trime	ster of the cours	e:				
Course level: II	· ·						
Prerequisities:							
Conditions for	course complet	ion:					
Learning outco	omes:						
Brief outline of	the course:						
Recommended	literature:						
Course languag	ge:						
Course assessm Total number o	nent f assessed studer	nts: 148					
A	В	С	D	Е	FX		
56.08 29.05 9.46 3.38 2.03 0.0							
Provides:							
Date of last modification: 23.02.2018							
Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.							

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Evolutionary Biology

EB1/99

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

written test

Learning outcomes:

To understand the fundamentals of the theory of evolution, the evidence supporting contemporary views on the origin and evolution of living organisms on Earth and the mechanisms of evolution.

Brief outline of the course:

Historical overview of evolutionary theories. The origin of life. Elements of evolution: mutations, population waves, and isolation. Natural selection. Molecular evolution. Adaptations and their classification. Concept of species. Macroevolution. Evolution of functions and organs, evolution of onthogeny. Phylogeny of animals. Evolutionary progress. Anthropogenesis. Plant diversity. Primary and secondary speciation of plants. Reproduction-isolation mechanisms. Hybridisation and introgression of plants. Polyploidy. Reproductive systems in plants.

Recommended literature:

Futuyama, D.J.: Evolutionary biology, Sinauer Associates, Sunderland, 3rd ed., 1997.

Dobzhansky T. et al.: Evolution. San Francisco 1977.

Course language:

Course assessment

Total number of assessed students: 535

A	В	С	D	Е	FX
11.4	24.3	23.93	24.67	13.83	1.87

Provides: prof. RNDr. Pavol Mártonfi, PhD., prof. RNDr. Beňadik Šmajda, CSc., prof. RNDr. Eva Čellárová, DrSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Ecological ethology

EET1/03

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: ÚBEV/ETO1/03

Conditions for course completion:

Recognition.
Oral exmination.

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 individuals and sexes.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 184

A	В	С	D	Е	FX	N	P
88.04	4.35	5.98	0.54	0.0	0.0	0.0	1.09

Provides: RNDr. Igor Majláth, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Experimental methods in physiology

EF1/03

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Recognition of practical skills.

Oral and practical examination.

Learning outcomes:

To explain the basic rules of breeding of laboratoty animals and of the criteria of correct handling of animals during housing and in experiment

Brief outline of the course:

The experimental animal, the laboratory animal, biomodels. Basics of animal breeding. Biological traits of commonly used laboratory animals. Genetics of lab. animals. Microbiological criteria of animal breeding. The influence of internal and external factors on health state and reactivity of animals: genetic determinants, sex, social and behavioral factors. The influence of physical factors of housing (temperature, humidity, light, noise, transport). Design of experiments.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 175

A	В	С	D	Е	FX
48.0	31.43	16.0	3.43	0.57	0.57

Provides: RNDr. Ján Gálik, CSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Animal and human ecophysiology

EFZ1/03

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Seminar. Test.

Learning outcomes:

The aim of lectures is to provide students with knowledge of adaptations to environmental factors and extreme environments effects.

Brief outline of the course:

Environmental factors, reaction, adaptation, deformation. Biological rhythms. Stress reaction - general adaptation syndrom. Physiology and pathology of adaptation mechanisms - fever, pain, inflammation, apoptosis, necrosis. Aging. Regulation of food intake. Food adaptations, fasting, starvation, overfeeding. Thermoregulation. Hibernation, estivation, diapause. Adaptations to hypobaria and hyperbaria. Adaptations to hypergravity and microgravity. Electromagnetic fields. Biotransformation. Xenobiotics in air, water and soil. Drugs of abuse. Carcinogenesis, oncogenes, tumor supressor genes. Cancer prevention. Prions.

Recommended literature:

- 1. Wilmer P and co.: Environmental Physiology of Animals. Blackwell Publishing Inc., 2004
- 2. Chown SL, Nicolson SW: Insect Physiological Ecology. Oxford University Press 2004

Course language:

Course assessment

Total number of assessed students: 399

A	В	С	D	Е	FX
14.29	23.06	22.06	22.81	16.54	1.25

Provides: doc. RNDr. Bianka Bojková, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | **Course name:** Ecology of mammals

EKC1/00

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours):

Per week: 1 / 1 Per study period: 14 / 14

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 4.

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:

Factors of environment. Temperature. Water. Snow. Light. Adaptations. Hypothermy. Hibernation, aestivation, letargy. Reseources. Food. Food strategies and specialistaions. Habitat and nika. Interactions. Komensalism. Mutualism. Kooperation. Competion. Predator and prey. Mammals and plants. Food webs. Teritoriality. Home range. Lek. Metapopulations. Reproduction. Mating systems. Oestrus. r- and K- strategy. Monogamy, polygamy. Dispersion. Migration. Habitat selection. Individual. Population. Natality, mortality. Kohorts. Population dynamics and cycles. Gradations. Mammal diversity. Island biogeografy. Macroecology. Gradients. Long-term studies. Habitat fragmentations. Synanthropy. Conservation of mammals. Wind energy. Mammal introductions. Repatriations, reintroductions. Expansions. Global climate changes and mammals. Protected areas. 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:

Course assessment

Total number of assessed students: 233

A	В	С	D	Е	FX	N	Р
61.37	18.88	12.88	2.58	2.58	0.0	0.0	1.72

Provides: doc. RNDr. Marcel Uhrin, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Soil Ecology

EKP1/04

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

active participation in the seminars

preparation of oral presentation to the selected topic

semestral written test

Learning outcomes:

The main goal of the subject is to understand soil as a heterogenous substrate and environment for the organisms with special emphasis to the mineral and organic components of the soil essential for existence and development of populations of the living biota.

Brief outline of the course:

The subject covers characterization of components of the soil environment, microclimate, nutrient cycling and energy flow. It deals with soil-forming factors and processes, soil organisms microbial communities, plant roots, invertebrate communities) and functioning of the soil system (decomposition, litter system, rhizosphere, drillosphere, termitosphere).

Recommended literature:

Coleman D. C., Crossley D. A. jr.: Fundamentals of soil ecology. Academic Press, 1995 Dunger W., Fiedler H. J.: Methoden in Bodenbiologie. VEB Gustav Fischer Verlag, Jena, 1989 Lavelle P. Spain A. V.: Soil ecology. Kluwer Academic Publishers. Dordrecht-Boston-London, 2001

Course language:

Course assessment

Total number of assessed students: 160

A	В	С	D	Е	FX
55.63	31.25	10.0	1.88	1.25	0.0

Provides: RNDr. Peter L'uptáčik, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Ecology of Birds EKV1/03 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present **Number of credits: 5** Recommended semester/trimester of the course: 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 213 В \mathbf{C} D Ε FX Α 72.3 15.96 9.86 0.47 1.41 0.0 Provides: Mgr. Peter Kaňuch, PhD. Date of last modification: 23.02.2018 **Approved:** Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | **Course name:** Ecology of Soil Animals

EPZ1/03

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

active participation in seminars

preparation of the presentation to the given topic

semestral written test

oral examination

Learning outcomes:

The main goal of the subject is to gain basic knowledge on the functioning of the soil system with the special reference to dominant systematic groups of the soil fauna, their ecology and taxonomic identification.

Brief outline of the course:

The subject deals with the soil as an ecological system and type of environment It is concentrated to the ecological factors ruling the life in soil, soil-dwelling animals and their adaptations to this specific habitat. Functioning of the soil system and understanding of the principal interactions of soil fauna with plant rhizosphere and soil microflora are among the main goals of the discipline.

Recommended literature:

Coleman, D.C., Crossley, D. A., 1996: Fundamentals of Soil Ecology. Academic Press, London, 1-205

Eisenbeis, G., Wichard, W., 1987: Atlas on the Biology of Soil Arthropods. Springer- Verlag Berlin, Germany, 1-437

Schaller, F. 1968: Soil Animals. The University of Michigan Press, United States of America, 1-144

Wallwork, J. A., 1970: Ecology of Soil Animals. McGraw-Hill, England, 1-283

Wallwork, J. A., 1976: The distribution and Diversity of Soil Fauna. Academis Press, London, 1-355

Course language:

Course assessment

Total number of assessed students: 140

Α	В	C	D	E	FX
47.86	24.29	18.57	6.43	2.86	0.0

Provides: RNDr. Natália Raschmanová, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Ethology

ETO1/03

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Recognition.

Written examination.

Learning outcomes:

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

Brief outline of the course:

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

Recommended literature:

Franck, D.: Verhaltensbiologie. Einfuhrung in die Ethologie. Georg Thieme-Verlag, 1993 Manning, A., Dawkins, M. S.: An introduction to animal behaviour. Cambridge University Press, 1992

Course language:

Course assessment

Total number of assessed students: 930

A	В	С	D	Е	FX
39.68	24.73	25.7	7.96	1.83	0.11

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

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Entomocenoses of Slovakia ETS1/03 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1/2 Per study period: 14/28 Course method: present **Number of credits: 5 Recommended semester/trimester of the course:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 92 В \mathbf{C} D Ε FX Α 58.7 25.0 13.04 1.09 0.0 2.17 Provides: doc. RNDr. L'ubomír Panigaj, CSc. Date of last modification: 23.02.2018 **Approved:** Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Ecology of Water Animals

EVZ1/03

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Ecological characteristic of freshwater groups and prevalent species - only Invertebrata.

Brief outline of the course:

Biology of the most common representatives and groups of freshwater animals of Central Europe temperate region. Mohological adaptations, taxanomical characters, water communities.

Recommended literature:

Fryer, G., Murphy, S.: A natural history of the lakes, tarns and streams of the English Lake District. Freshw. Biol. Association Cumbria, 1991

Bronsmark, Ch., Hannsson, L. A.: The biology of Lakes and ponds. Biol. Of Habitats Ser, 1998

Course language:

Course assessment

Total number of assessed students: 164

A	В	С	D	Е	FX
23.78	17.07	18.9	38.41	1.83	0.0

Provides: RNDr. Andrej Mock, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Hydrobiology

HDR1/99

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Abiotic and biotic factors of water environment; typology and characteristics of freshwater habitats; eutrophycation, pollution saprobity and evaluation of habitats with relation to abiotic factors.

Recommended literature:

Horn, A., Goldman, C.: Limnology. Mc Graw Hill. 2nd Edition, 1994 Wetzel, R.G.: Limnological analyses. Springer Verl., 3rd Edition, 2000

Course language:

Course assessment

Total number of assessed students: 194

A	В	С	D	Е	FX
36.08	21.13	20.1	21.13	1.55	0.0

Provides: RNDr. Andrej Mock, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KFaDF/ Course name: Idea Humanitas 2 (General Introduction) IH2/03 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Number of credits: 2 Recommended semester/trimester of the course: 3. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 8 В \mathbf{C} D Ε FX Α 87.5 12.5 0.0 0.0 0.0 0.0 Provides: Doc. PhDr. Peter Nezník, CSc. Date of last modification: 31.08.2017 **Approved:** Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Immunology

IMU1/03

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Recognition.

Oral examination.

Learning outcomes:

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

Brief outline of the course:

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

Recommended literature:

Janeway Ch. A., Travers P., Walport M., Schlomchik M.: Immunobiology. Garland Science, 2004 Murphy, K. (2012): Jeneway's Immunobiology. 8th ed. Garland Science

Delves, P.J. et al. (2011): Roitt's essential immunology 12th ed Wiley-Blackwell

Course language:

Course assessment

Total number of assessed students: 866

A	В	С	D	Е	FX
38.68	24.13	25.17	6.93	1.73	3.35

Provides: RNDr. Vlasta Demečková, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Course

Course name: Practical in immunology

IMUC1/03

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 3 Per study period: 42

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities: ÚBEV/IMU1/03

Conditions for course completion:

Recognition. Recognition.

Learning outcomes:

The practical course will focus on basic techniques and skills in immunology laboratories in order to have technical foundation to suggest experimental analysis of some immunological questions.

Brief outline of the course:

Special immunology practicals cover common immunological techniques as well as techniques relevant to the research projects at the department. The main aim is to understand the host immune response to infection. Practicals also include a study of the histophysiology of animal immune organs. The students will learn to perform immunological experiments, including critical evaluation of the results.

Recommended literature:

Study materials provided by teacher.

Course language:

Course assessment

Total number of assessed students: 264

A	В	С	D	Е	FX
69.32	17.8	12.12	0.38	0.0	0.38

Provides: RNDr. Vlasta Demečková, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KFaDF/ Course name: Chapters from History of Philosophy of 19th and 20th KDF/05 Centuries (General Introduction) Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 10

Α	В	С	D	Е	FX
50.0	20.0	10.0	0.0	10.0	10.0

Provides: doc. PhDr. Pavol Tholt, PhD., mim. prof.

Date of last modification: 31.08.2017

University: P. J. Šafá	rik Univers	ity in Košice			
Faculty: Faculty of Science					
Course ID: KPPaPZ/KK/07	Course na	me: Communication and Coopera	tion		
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	ce rse-load (h dy period:	ours):			
Number of credits: 2	2				
Recommended seme	ster/trimes	ster of the course: 3.			
Course level: II.					
Prerequisities:					
Conditions for cours	e completi	on:			
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Course assessment Total number of asse	ssed studen	ts: 281			
abs n z					
98.22 1.78 0.0					
Provides: Mgr. Ondro	ej Kalina, P	hD., Mgr. Lucia Hricová, PhD.			
Date of last modification: 21.08.2017					
Approved: Guarantee	eprof. RND	r. Beňadik Šmajda, CSc.			

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | Course name: Survival Course

KP/12

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: Per study period: 36s

Course method: present

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Conditions for course completion:

Attendance

Final assessment: continuous fulfilment of all tasks within the course

Learning outcomes:

Learning outcomes:

Students will be familiarized with principles of safe stay and movement in extreme natural conditions as they will obtain theoretical knowledge and practical skills to solve the extraordinary and demanding situations connected with survival and minimization of damage to health. The course develops team work and students will learn how to manage and face the situations that require overcoming of obstacles.

Brief outline of the course:

Brief outline of the course:

Lectures:

- 1. Principles of behaviour and safety for movement and stay in unknown mountains
- 2. Preparation and leadership of tour
- 3. Objective and subjective danger in mountains
- 4. Principles of hygiene and prevention of damage to health in extreme conditions

Exercises:

- 1. Movement in terrain, orientation and navigation in terrain (compasses, GPS)
- 2. Preparation of improvised overnight stay
- 3. Water treatment and food preparation.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 365

abs	n
44.38	55.62

Provides: MUDr. Peter Dombrovský, Mgr. Marek Valanský

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚTVŠ/ Course name: Summer Course-Rafting of TISA River LKSp/13 Course type, scope and the method: **Course type:** Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present Number of credits: 2 Recommended semester/trimester of the course: Course level: I., II. **Prerequisities: Conditions for course completion:** Conditions for course completion: Attendance Final assessment: Raft control on the waterway (attended/not attended) **Learning outcomes:** Learning outcomes: Students have knowledge of rafts (canoe) and their control on waterway. **Brief outline of the course:** Brief outline of the course: 1. Assessment of difficulty of waterways 2. Safety rules for rafting 3. Setting up a crew 4. Practical skills training using an empty canoe 5. Canoe lifting and carrying 6. Putting the canoe in the water without a shore contact 7. Getting in the canoe 8. Exiting the canoe 9. Taking the canoe out of the water 10. Steering a) The pry stroke (on fast waterways) b) The draw stroke 11. Capsizing 12. Commands **Recommended literature:** Course language: **Course assessment** Total number of assessed students: 142 abs n

58.45

41.55

Provides: Mgr. Peter Bakalár, PhD.

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Cell metabolism

MEB1/03

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Recognition.

Oral examination.

Learning outcomes:

To provide the students with knowledge about the principal metabolic processes in living cells.

Brief outline of the course:

Carbohydrates – significance and role in animal organisms. Inborn errors of carbohydrate and lipid metabolism in humans. Lipid metabolism. Role of the liver and adipose tissue in lipid metabolism. Plasma lipoproteins – metabolism and disorders. Cholesterol and atherosclerosis. Protein metabolism and its inborn errors. Water and solute metabolism. Physiology and regulatory mechanisms of water-base balance in animal organisms. Metabolic regulation. Topochemistry of metabolic processes

Recommended literature:

- 1. Murray, R. K., Grammer, D. K., Mayes, P. A., Rodwell, V.W.: Harper's Biochemistry. Prentice-Hall, Appleton & Lange, 1993
- 2. Vasudevan D.M. and co.: Textbook of Biochemistry for Medical Students. Jaypee Brothers Medical Publishers 2011

Course language:

Course assessment

Total number of assessed students: 168

A	В	С	D	Е	FX
36.31	24.4	17.26	10.12	7.74	4.17

Provides: doc. RNDr. Monika Kassayová, CSc.

Date of last modification: 23.02.2018

University: P. J. S	Safárik Univers	sity in Košice					
Faculty: Faculty	of Science						
Course ID: ÚBE MECV/16	Course ID: ÚBEV/ Course name: Metódy ekologického výskumu cicavcov MECV/16						
Course type, scop Course type: Le Recommended Per week: 1/21 Course method:	cture / Practice course-load (h Per study peri	e ours):					
Number of credit	ts: 3						
Recommended so	emester/trime	ster of the cours	e: 2.				
Course level: II.							
Prerequisities:							
Conditions for co	ourse completi	ion:					
Learning outcom	ies:						
Brief outline of t	he course:						
Recommended li	terature:			_			
Course language	:						
Course assessment Total number of a		nts: 0					
A	В	С	D	Е	FX		
0.0	0.0 0.0 0.0 0.0 0.0						
Provides: doc. RN	NDr. Marcel U	hrin, PhD.		•	•		
Date of last modi	fication: 23.02	2.2018					
Approved: Guara	nteeprof. RND	r. Beňadik Šmaj	da, CSc.				

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | **Course name:** Model Organisms in Genetics

MOG/03

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

Course method: present

Number of credits: 5

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:

protocols,

participation at a mini conference: Model organism for my diploma thesis,

oral examination

Learning outcomes:

To provide the students with an information on model systems of prokaryotic and eukaryotic organisms used in genetic research.

Brief outline of the course:

Basic properties of model organisms used in genetics. Viral models in genetics (Tobacco mosaic virus, Lambda phage, PhiX174 phage). Prokaryotic model systems (Escherichia coli, Diplococcus pneumoniae, Agrobacterium tumefaciens and A. rhizogenes). Another prokaryotic models (Bacillus subtilis, Caulobacter crescentus, Mycoplasma genitalium, Synechocystis sp.), Model systems of simple eukaryotic organisms (Saccharomyces cerevisiae, Neurospora crassa, Aspergillus nidulans, Dictiostelium discoideum). Animal model systems (Drosophila melanogaster, Caenorhabditis elegans, Danio rerio, Mus musculus). Another animal models (Xenopus laevis, Ambystoma mexicanum, Chrysemys picta, Anolis carolinensis, Fugu rubripes, Gallus gallus, Heterocephalus glaber). Plant model organisms (Pisum sativum, Arabidopsis thaliana, Nicotiana tabacum, Zea mays, Selaginella moellendorffii, Brachypodium distachyon, Lotus japonicus, Populus trichocarpa). Mendel's laws. Morgan's rules. Genetic databases. Model organisms and their role in the treatment of human genetic disorders.

Recommended literature:

Snustad, P.D., Simmons, M.J.: Genetika. Nakladatelství Masarykovy univerzity, Brno, 2009, 871 str..

Genetic periodicals,

Internet sources

Course language:

Course assessment

Total number of assessed students: 1190

A	В	С	D	Е	FX	N	Р
23.78	15.13	15.63	14.54	17.9	12.02	0.0	1.01

Provides: prof. RNDr. Eva Čellárová, DrSc., RNDr. Andrea Kimáková, PhD., RNDr. Katarína Nigutová, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Plant Metabolism

MR1/03

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

Course method: present

Number of credits: 6

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Examen

Learning outcomes:

To provide the students with pathways of biosynthesis in plant and functions of primary and secondary metabolites

Brief outline of the course:

Photosynthesis: structure of photosynthetic apparatus, light absorption, electron and proton transport, photophosphorylation. Calvin cycle, rubisco and photorespiration. C4 and CAM plants. Synthesis of starch and sucrose. Respiration: glycolysis, citric acid cycle, electron transport and ATP synthesis. Lipid biosynthesis and convertion into carbohydrates. Polyacetylenes. Nitrogen metabolism: fixation, nitrate assimilation, ammonium conversion to amino acids. Sulfur assimilation and metabolism. Terpenes: biosynthesis and functions. Phenolic compounds: pathways of biosynthesis, phenylpropanes, flavonoids and lignins. Alkaloids. Mechanisms of plant defense.

Recommended literature:

Lawlor D. W. Photosynthesis. Third edition. BIOS, Oxford 2001; Taiz L., Zeiger E., Plant physiology. Fifth edition. Sinauer ass., Sunderland 2010

Course language:

Course assessment

Total number of assessed students: 106

A	В	С	D	Е	FX
26.42	16.04	17.92	16.98	19.81	2.83

Provides: doc. RNDr. Peter Pal'ove-Balang, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Molecular basis of ontogenetic development

MZO1/03

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:

Oral examination.

Learning outcomes:

Acquiring of basic knowledge of principles and molecular-biological mechanisms of ontogenetic development of animal and plant organisms.

Brief outline of the course:

Regulation of the ontogenetic development in eukaryotic organisms. Program of the ontogenetic development. Cell determination and differentiation. Molecular mechanisms of formation of specialised cell types. Epigenetic mechanisms of cellular memory. Imprinting. Combinatory control of eukaryotic genes. Regulatory genes. Establishment of cell position. Formation of the embryonic body plan. Establishment of the main axis of body. Shape formation. Cloning of multicellular organisms.

Recommended literature:

Gerhard, J., Kirschener, M.: Cells, Embryos and Evolution. Blacwell Science Inc., Massachusett, Oxford, London, 1997

Course language:

Course assessment

Total number of assessed students: 349

A	В	С	D	Е	FX	N	P
35.82	22.06	12.61	14.04	8.6	5.44	0.0	1.43

Provides: prof. RNDr. Eva Mišúrová, CSc., RNDr. Zuzana Jendželovská, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Neuroanatómia

NAT/10

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 0 Per study period: 28 / 0

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 2.

Course level: II., III.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To provide the students with basic knowledge, principles and function of human nervous system.

Brief outline of the course:

Introduction to neuroanatomy, development, classification of the Nervous System, dividing of the Nervous System (CNS and PNS), Spinal Cord and Spinal Nerves (structure, reflexes, gray matters and intrinsic pathways, Ascendig, Descending Tracts), Brain Stem and Cranial Nerves, Cerebellum, Diencephalon, Telencephalon, Limbic System, Cerebrospinal Fluid System, Vegetative Nervous System, Functional Systems (Motor systems - pyramidal tract, extrapyramidal Motor System, motor pathway), (Sensory system - pathway of Epicritic Senzibility, Pathway of Prothopatic Sensibility, Optic Pathway, Auditory Tret, Vestibular Tract)

Recommended literature:

Kahle W., Leonhardt H., Platzer W.: Color Atlas and Textbook of Human Anatomy, Volume 3.

Nervous System and Sensory Organs, 1993 Georg Thieme Verlag Stuttgart, New York

Hendelman W.J.: Atlas of functional neuroanatomy CRC Press LLC, 2000 Kopf-Mäier P.: Wolf-Heideggers Atlas of Human Anatomy Kärger, 2000

Miklošová M.: Anátómia PF, UPJŠ, 2011, Equilibria

Haines, D.E.: Neuroanatomy, Lippincott Williams, Wilkins, 2011

Course language:

Course assessment

Total number of assessed students: 28

A	В	С	D	Е	FX	N	P
21.43	10.71	7.14	0.0	0.0	3.57	0.0	57.14

Provides: RNDr. Juraj Ševc, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Parasitology II PAR2/03 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present **Number of credits: 3 Recommended semester/trimester of the course:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 48 В \mathbf{C} D Е FX N P Α 77.08 12.5 8.33 2.08 0.0 0.0 0.0 0.0 Provides: RNDr. Viktória Majláthová, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | **Course name:** Comparative animal physiology

PFYZ/15

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course:

Course level: II., III.

Prerequisities:

Conditions for course completion:

Performance of 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:

Phylogeny of food acquisition, processing and utilization in animals. Energy metabolism (factors influencing the metabolic rate; physiology of physical work; principles of aerobic performance in various species). Thermal housekeeping (poikilothermic and homoiothermic strategies, life in cool environment). The phylogenic development of the nervous system. Sensoric abilities of the animals. Evolution of the brain. Endocrinal and neuroendocrinal regulation of body functions in evertebrates and vertebrates. Reproductive systems of the animals. Navigation in animals. Motoric basicss of animal behaviour. The mechanisms of the exchange of respiratory gases in a phylogenetic view. Comparison of the circulatory systems in animals. Water- and mineral housekeeping in terrestrial and aquatic animals. Excretory systems of the animals.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 16

A	В	С	D	Е	FX	N	P
56.25	25.0	0.0	6.25	0.0	0.0	0.0	12.5

Provides: prof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: Dek. PF Course name: Personality Development and Key Competences for Success UPJŠ/PPZ/13 on a Labour Market Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 14s Course method: present Number of credits: 2 Recommended semester/trimester of the course: 1., 3. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 39 В \mathbf{C} D Ε FX Α 100.0 0.0 0.0 0.0 0.0 0.0

Provides: RNDr. Peter Stefányi, PhD.

Date of last modification: 19.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Course name: Psychology and Health Psychology (Master's Study)

KPPaPZ/PPZMg/12

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 226

A	В	С	D	Е	FX
19.47	25.22	25.66	13.27	15.93	0.44

Provides: PhDr. Anna Janovská, PhD., Mgr. Lucia Hricová, PhD.

Date of last modification: 21.08.2017

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚBEV/ SDPa/15	Course name: Diploma Th	esis Seminar
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent	
Number of credits: 4	1	
Recommended seme	ester/trimester of the cours	e: 1.
Course level: II.		
Prerequisities:		
Conditions for cours	se completion:	
Learning outcomes:		
Brief outline of the c	course:	
Recommended litera	ature:	
Course language:		
Course assessment Total number of asse	ssed students: 150	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	ation: 23.02.2018	
Approved: Guarante	eprof. RNDr. Beňadik Šmajo	la, CSc.

University: P. J. Šafá	rik University in Košice					
Faculty: Faculty of S	Faculty: Faculty of Science					
Course ID: ÚBEV/ SDPb/15	Course name: Diploma T	nesis Seminar				
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period:					
Number of credits: 4	1					
Recommended seme	ster/trimester of the cours	e: 2.				
Course level: II.						
Prerequisities:						
Conditions for cours	se completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	nture:					
Course language:						
Course assessment Total number of asse	ssed students: 112					
abs						
100.0 0.0						
Provides:						
Date of last modification: 23.02.2018						
Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.						

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚBEV/ SDPc/15	1					
Course type: Recommended cou Per week: Per stud	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 4						
Recommended seme	ster/trimester of the course	2: 3.				
Course level: II.						
Prerequisities:						
Conditions for cours	se completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	nture:					
Course language:						
Course assessment Total number of asse	ssed students: 110					
abs n						
100.0 0.0						
Provides:						
Date of last modification: 23.02.2018						
Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.						

University: P. J.	University: P. J. Šafárik University in Košice						
Faculty: Faculty	Faculty: Faculty of Science						
Course ID: ÚBE SDPd/15	Course ID: ÚBEV/ Course name: Diploma Thesis Seminar SDPd/15						
Course type: Recommended Per week: Per	Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present						
Number of cred	its: 4						
Recommended s	semester/trimes	ster of the cours	e: 4.				
Course level: II.							
Prerequisities:							
Conditions for c	course completi	on:		_			
Learning outcor	mes:						
Brief outline of	the course:						
Recommended l	literature:			_			
Course language	e:						
Course assessme Total number of		ts: 108					
A							
87.04 6.48 3.7 0.93 1.85 0.0							
Provides:							
Date of last modification: 23.02.2018							
Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.							

University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Social-Psychological Training of Coping with Critical Life KPPaPZ/SPVKE/07 Situations Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 126 abs Z n 97.62 2.38 0.0 Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 21.08.2017

University: P. J. Š	afárik Univers	ity in Košice						
Faculty: Faculty of	Faculty: Faculty of Science							
Course ID: ÚBEV SVK/01	// Course na	me: Student Sci	entific Conference	ce				
Course type, scop Course type: Recommended of Per week: Per s Course method:	course-load (h tudy period:							
Number of credit	s: 4							
Recommended se	mester/trimes	ster of the cours	e: 2., 4.					
Course level: I., I	[.							
Prerequisities:								
Conditions for co	urse completi	on:						
Learning outcom	es:							
Brief outline of th	ie course:							
Recommended lit	terature:							
Course language:								
Course assessment Total number of a		ts: 258		_				
A	В	С	D	Е	FX			
100.0	100.0 0.0 0.0 0.0 0.0							
Provides:								
Date of last modi	Date of last modification: 23.02.2018							
Annroyed: Guara	Annroved: Guaranteenrof RNDr Reňadik Šmaida CSc							

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | **Course name:** Sports Activities I.

TVa/11

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 1.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:

Conditions for course completion:

Min. 80% of active participation in classes.

Learning outcomes:

Learning outcomes:

Increasing physical condition and performance within individual sports. Strengthening the relationship of students to the selected sports activity and its continual improvement.

Brief outline of the course:

Brief outline of the course:

Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, basketball, badminton, floorball, yoga, pilates, swimming, body-building, indoor football, self-defence and karate, table tennis, sports for unfit persons, streetball, tennis, and volleyball.

In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness.

In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 11672

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.42	0.01	0.0	0.0	0.0	0.03	7.59	3.96

Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Ing. Iveta Cimboláková, PhD.

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | **Course name:** Sports Activities II.

TVb/11

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:

Conditions for course completion:

Final assessment and active participation in classes - min. 75%.

Learning outcomes:

Learning outcomes:

Increasing physical condition and performance within individual sports. Strengthening the relationship of students to the selected sports activity and its continual improvement.

Brief outline of the course:

Brief outline of the course:

Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, basketball, badminton, floorball, yoga, pilates, swimming, body-building, indoor football, self-defence and karate, table tennis, sports for unfit persons, streetball, tennis, and volleyball.

In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness.

In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 10971

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.37	0.57	0.02	0.0	0.0	0.05	10.13	3.86

Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Ing. Iveta Cimboláková, PhD.

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | **Course name:** Sports Activities III.

TVc/11

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 6910

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
89.84	0.04	0.0	0.0	0.0	0.03	4.23	5.86

Provides: Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Ing. Iveta Cimboláková, PhD.

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | **Course name:** Sports Activities IV.

TVd/11

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 4.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 5045

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.09	0.3	0.04	0.0	0.0	0.0	6.82	7.75

Provides: Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Ing. Iveta Cimboláková, PhD.

Date of last modification: 18.08.2017

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Selected topics in clinical immunology UBEV/VKKI//15 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present **Number of credits: 5 Recommended semester/trimester of the course:** Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 26 В \mathbf{C} D Ε FX Α 15.38 84.62 0.0 0.0 0.0 0.0 Provides: RNDr. Vlasta Demečková, PhD. Date of last modification: 23.02.2018 **Approved:** Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Introduction to Flow Cytometry

UFCM/10

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28

Course method: present

Number of credits: 4

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

Course level: II., III.

Prerequisities:

Conditions for course completion:

Learning outcomes:

The goal is to teach the students on II. and III. stage some theoretical and practical aspects of analytical cytometry with special focus on flow cytometry. The course will cover theoretical bases of fluorescence, its detection, multiparametric analyses and practical applications in clinical diagnosis and scientific research.

Brief outline of the course:

Fluorescence: physical bases, detection, various designs of instruments exploiting fluorescence detection, fluorescent dyes, fluorescently labeled antibodies

Flow cytometry: principle of hydrodynamic focusing, signal detection, analog and digital data processing, data plotting, gating. Various types of analyses, basic applications, summary of commercial hardware and software.

Cell sorting: physical principles of cell sorting – advatages and disadvantages, sorting strategies, summary of applications and commercial hardware and software.

Practical software data analyses.

Recommended literature:

- 1. H.M. Shapiro: Practical Flow Cytometry, WILEY-LISS, 2003. (ISBN:0-471-41125-6)
- 2. A.L. Givan: Flow Cytomtery: First principles, WILEY-LISS, 2001, (ISBN 0-471-22394-8)
- 3. J. Dolezel a kol.: Flow Cytometry with Plant Cells, Willey-VCH, 2007, (ISBN:

978-3-527-31487-4)

Course language:

Course assessment

Total number of assessed students: 137

A	В	С	D	Е	FX	N	Р
67.88	1.46	6.57	2.19	2.19	0.0	0.0	19.71

Provides: RNDr. Rastislav Jendželovský, PhD.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice						
Faculty: Faculty of Science						
Course ID: ÚBEV/ Course name: Urbánna ekológia UK/17						
Course type, scope Course type: Lec Recommended co Per week: 2 / 1 Po Course method: 1	cure / Practice ourse-load (h er study peri	e nours):				
Number of credits	: 3					
Recommended semester/trimester of the course: 2.						
Course level: II.						
Prerequisities:						
Conditions for course completion:						
Learning outcomes:						
Brief outline of the	course:					
Recommended lite	rature:					
Course language:						
Course assessment Total number of as		nts: 6				
A B C D E FX						
100.0 0.0 0.0 0.0 0.0						
Provides: doc. RN	Or. Marcel Ul	hrin, PhD.			l .	
Date of last modification: 23.02.2018						
Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.						

University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: The Art of Aiding by Verbal Exchange KPPaPZ/UPR/03 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present Number of credits: 2 Recommended semester/trimester of the course: 4. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 49 В C D Ε FX Α 85.71 4.08 2.04 2.04 4.08 2.04 Provides: Mgr. Ondrej Kalina, PhD. Date of last modification: 21.08.2017

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Selected topics in herpetology

VKH1/03

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Writen test.

Oral examination.

Learning outcomes:

To broaden the knowledge of students on evolution, taxonomy, morphology, ecology and ecology of amphibia and 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:

Course assessment

Total number of assessed students: 133

A	В	С	D	Е	FX	N	P
91.73	5.26	3.01	0.0	0.0	0.0	0.0	0.0

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

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Vývinové a molekulárne mechanizmy v evolúcii stavovcov VMES/17 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 0 Per study period: 28 / 0 Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 8 В C D Ε FX Α 0.0 100.0 0.0 0.0 0.0 0.0 Provides: doc. RNDr. Martin Kundrát, Ph.D. Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Basic chiropterology ZCHI2/11 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1/2 Per study period: 14/28 Course method: present Number of credits: 3 **Recommended semester/trimester of the course:** 1. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes:** Comprehensive review of scientific knowledge on bats. Review on methods of bat research in conditions of the temperate zone. **Brief outline of the course:** Bat systematics. Species diversity, bats of the Palaearctic. Morphology, anatomy, physiology. Echolocation. Ecology: roosts, diet, hibernations, migration. Social structure, mating systams, population ecology. Research methods. **Recommended literature:** Kunz T. H. & Fenton M. B. (eds), 2003: Bat ecology. The University of Chicago Press, Chicago and London, 779 pp. Course language: Course assessment Total number of assessed students: 60 abs n 98.33

Provides: doc. RNDr. Marcel Uhrin, PhD.

Approved: Guaranteeprof. RNDr. Beňadik Šmajda, CSc.

Date of last modification: 23.02.2018

1.67

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Zoology and Animal Physiology

ZFZ/14

Course type, scope and the method:

Course type:

Recommended course-load (hours):

Per week: Per study period: Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚBEV/EFZ1/03 and ÚBEV/MEB1/03 and ÚBEV/IMU1/03 and ÚBEV/ZOG1/03 and ÚBEV/EB1/99 and ÚBEV/ETO1/03

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 48

A	В	С	D	Е	FX
33.33	35.42	22.92	8.33	0.0	0.0

Provides:

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Basics of Neurophysiology ZNFYZ/15 Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 **Recommended semester/trimester of the course:** Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 36 В \mathbf{C} D Ε FX Α 83.33 11.11 5.56 0.0 0.0 0.0 Provides: RNDr. Ján Gálik, CSc., prof. RNDr. Beňadik Šmajda, CSc. Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Zoogeography

ZOG1/03

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Active participation in seminars.

Preparation of oral presentation to selected topic.

Semestral written test.

Oral examination.

Learning outcomes:

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

Brief outline of the course:

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

Recommended literature:

Buchar, J., 1983: Zoogeografie. SPN Praha

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

Course language:

Course assessment

Total number of assessed students: 877

A	В	С	D	Е	FX
23.26	23.6	25.31	17.9	7.98	1.94

Provides: prof. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 23.02.2018

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | Course name: Seaside Aerobic Exercise

ÚTVŠ/CM/13

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: Per study period: 36s

Course method: present

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Conditions for course completion:

Attendance

Learning outcomes:

Learning outcomes:

Students will be provided an overview of possibilities how to spend leisure time in seaside conditions actively and their skills in work and communication with clients will be improved. Students will acquire practical experience in organising the cultural and art-oriented events, with the aim to improve the stay and to create positive experiences for visitors.

Brief outline of the course:

Brief outline of the course:

- 1. Basics of seaside aerobics
- 2. Morning exercises
- 3. Pilates and its application in seaside conditions
- 4. Exercises for the spine
- 5. Yoga basics
- 6. Sport as a part of leisure time
- 7. Application of projects of productive spending of leisure time for different age and social groups (children, young people, elderly)
- 8. Application of seaside cultural and art-oriented activities in leisure time

Recommended literature:

Course language:

Course assessment

Total number of assessed students: 33

abs	n
12.12	87.88

Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.

Date of last modification: 18.08.2017