CONTENT

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/AFS/05	**Course name:** Ancient Philosophy and Present Times

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 31

A	B	C	D	E	FX
80.65	6.45	6.45	0.0	6.45	0.0

Provides: Doc. PhDr. Peter Nezník, CSc.

Date of last modification: 12.02.2020

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BAM1/00	**Course name:** Biochemical Analytical Methods

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Written examination

Learning outcomes:

Brief outline of the course:
General principles of analytical biochemistry. Introduction to biomolecules. Application of spectroscopy. Centrifugation and separation. Chromatography of biomolecules. Principles and application of electrophoresis. Application of mass spectrometry. Immunochemical techniques Ions, electrodes and biosensors.

Recommended literature:
D. J. Holme, H. Peck: Analytical Biochemistry, 1998
S. R. Mikkelsen, E. Cortón: Bioanalytical Chemistry, 2004
V. A. Gault, N. H. McClenaghan: Understanding Bioanalytical Chemistry: Principles and applications, 2009

Course language:

Notes:

Course assessment
Total number of assessed students: 54

A	B	C	D	E	FX
50.0	18.52	14.81	14.81	1.85	0.0

Provides: RNDr. Rastislav Varhač, PhD.

Date of last modification: 04.02.2016

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BCHKBCH/14	**Course name:** Biochemistry and Clinical Biochemistry
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisities: ÚCHV/BFC1a/01 and ÚCHV/KLB1/03 and ÚCHV/BFC1b/03	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment

Total number of assessed students: 51

A	B	C	D	E	FX
49.02	29.41	15.69	3.92	1.96	0.0

Provides:
Date of last modification: 03.05.2015
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BCM/04	**Course name:** Biochemistry of Microorganisms

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

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
2 tests
test

Learning outcomes:
The aim of biochemistry of microorgamism teaching is to acquire knowledge in the field of microorganisms.

Brief outline of the course:
Structure and physiology of microorganisms; microbial nutrition, growth and control; microbial molecular biology and genetics; medical microbiology; immunology and applied microbiology; microbial diseases and their control.

Recommended literature:
McCall D., Stock D., Achrey P., Introduction to Microbiology, Blackwell Science, USA, 2001
Willey, J.M., Sherwood L.M., Woolverton C.J., Prescott, Harley, and Klein´s Microbiology, McGraw-Hill Int. Ed., USA, 2008
Black J.G., Microbiology, John Wiley and Sons, USA, 2008

Course language:

Notes:

Course assessment
Total number of assessed students: 158

A	B	C	D	E	FX
51.27	24.05	17.09	6.96	0.63	0.0

Provides: doc. RNDr. Mária Kožurková, CSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BFP/04/08	**Course name:** Biochemistry of Physiological Processes

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:
Cell cycle; regulation mechanism of embryogenesis; apoptosis and degradation of biomacromolecules; regeneration processes; biochemical specialisation of inner cell particles; specialisation of body organs; metabolic functions of the liver and the kidney; the endocrine system, hormones; second messengers; generation and conduction of action potentials; synaptic transmission; immune system; blood sedimentation rate; communication between organisms; symbiosis; ecology.

Recommended literature:
D.Voet, J.G. Voetová, Biochemie, Viktoria Publishing, Praha, 1994
Alberts a kol., Molecular Biology of The Cell, 3rd edition, Garland Publishing, New York, 1994
H. Tedeshi, Cell Physiology, www.cellphysiology.com
Articles from Journals

Course language:

Notes:

Course assessment
Total number of assessed students: 107

A	B	C	D	E	FX
44.86	26.17	14.95	7.48	3.74	2.8

Provides: prof. Ing. Marián Antalík, DrSc., RNDr. Nataša Tomášková, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BBA1/03	**Course name:** Bioenergetics and Bioelectronics
Course type, scope and the method: **Course type:** Lecture **Recommended course-load (hours):** **Per week:** 3 **Per study period:** 42 **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course: Cell metabolism, ATP, polyphosphates. Electron transport chain, mitochondria, chloroplast, chemoautotrops. Photosynthesis, bacteriorodopsin. Oxidative phosphorylation, chemical gradient. ATPases. Membrane transport. ATP metabolism. Electron transport in biomacromolecules. Electric sources, battery. Organic electric materials. Photolysis of water Organic a biological memories Molecular films, nanotechnology, Integrated system between neurons and electronics	
Recommended literature: D. Voet, J. G. Voetová, Biochémie, Victoria Publishing, Praha, 1994 M. Grätzel, ed., Energy Resources throught photochemistry and catalysis, Academic Press, NY, 1983 L.A. Blumenfeld, Physics of bioenergetic processes, Springer-Verlag, Berlin, 1983 Berg, J. M., Tymoczko J. L., Stryer L., Biochemistry, WH Freeman and Company, NY, 2007 Articles from Journals	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 12

A	B	C	D	E	FX
33.33	58.33	8.33	0.0	0.0	0.0

Provides: prof. Ing. Marián Antalík, DrSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BOC/03	**Course name:** Bioorganic chemistry

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Examinationn

Learning outcomes:
Explanation of fundamental principles for the construction of bioorganic molecular models of biochemical precesses using the tools of organic chemistry.

Brief outline of the course:
1. Introduction: Basic consideration, proximity effects in biochemistry, Molecular adaptation, Molecular recognition at the supramolecular level.
2. Bioorganic Chemistry of amino acids and polypeptides: Chemistry of the living cells, Analogy between organic reactions and biochemical tranformations, Chemistry of the peptide bond, Nonribosomal peptide formation, Asymmetric synthesis od amino acids, Asymmetric synthesis with chiral organometalic catalysts, Transition state analogs, Antibodies as enzymes, Chemical mutations, Molecular recognition and Drug design.
3. Bioorganic Chemistry of the Phosphate groups and polynucleotides: Energy storage, DNA intercalates, RNA molecules as catalysts.
4. Enzyme Chemistry: Introduction to catalysis and enzymes, Multifuntional catalysis and Simple models, alfa-Chymotrypsin, Other hydrolytic enzymes, Strereoelectronic control in hydrolytic reactions, Immobilized enzymes, Enzymes in synthetic organic chemistry, Enzyme-Analog-Built polymers, Design of molecular clefts.
5. Enzyme Models: Host-Guest complexation chemistry, New development in crown ether chemistry, Membrane chemistry and micelles, Polymers, Cyclodextrins, Enzyme design using steroid template, Remote functionalisation reactions, Polyene biomimetic cyclisations.
6. Metal Ions: Metal ions in proteins and biological molecules, Carbopeptidase A, Hydrolysis of amino acid esters and peptides, Iron and oxygen transport, Cooper ion, Cobalt and vitamin B12 action, Oxidoreduction, Pyridoxal phosphate, Biotin.

Recommended literature:
Voet J. : Biochemistry, Springer Verlag, 1998
Dugas H.: Bioorganic Chemistry, Springer Verlag, 1999.

Course language:

Notes:

Course assessment
Total number of assessed students: 157

A	B	C	D	E	FX
82.8	5.1	7.01	3.82	1.27	0.0

Provides: prof. RNDr. Jozef Gonda, DrSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BFC1a/01	**Course name:** Biophysical Chemistry I

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Examination

Learning outcomes:

Brief outline of the course:
Matter and its demonstration in living systems
Space and time connections in biological systems
Energy and mass connections in biological systems
Physicochemical properties of water and cell liquids
Reaction kinetics
Ligand binding
Nonequilibrium thermodynamics
Dynamics of conservative systems, chaos
Dissipative systems, attractors
Stability of biomacromolecules
Interfaces and membranes, membrane transports
Dynamics of complex biochemical process
Structuralization of biosystems induced by diffusion

Recommended literature:
Cantor,C.R.,Schimmel,P.R Biophysical Chemistry, W.H. Freeman and Co., S. Francisco,1980
P.Glansdorff, I.Prigogine, Thermodynamics theory of structure, stability and fluctuations, Willey 1971
Voet,D. Voet,J.G. Biochemistry, John Willey @Sons, 1990
Kersal E. van Holde, W. Curtis Johnson, P. Shing Ho: Principles of Physical Biochemistry, Prentise Hall, 1998
Articles from Journals
Marschall, A.G., Biophysical Chemistry, John Wiley & Sons, N.York, 1978
Hoppe, W., Lohmann, W., Markl, H., Ziegler, H., (eds.), Biophysics, Springer V., Berlin, 1983
Peitgen, H. O., Jurgens, H., Saupe, D., Fractals for the Classroom, Springer-Verlag, NY, 1992
Avnir,D (ed.)., The Fractal Approach to Heterogeneous Chemistry, John Wiley &S., NY,1989
Winfree, A. T., The Geometry of Biological Time, Springer-Verlag, NY, 1980

Harrison, L. G., Kinetic Theory of Living Pattrern, Cambridge Univ. Pres., NY, 1993

Course language:

Notes:

Course assessment
Total number of assessed students: 173

A	B	C	D	E	FX
12.14	16.18	35.84	23.7	12.14	0.0

Provides: prof. Ing. Marián Antalík, DrSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BFC1b/03	**Course name:** Biophysical Chemistry II

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 2 / 4 **Per study period:** 28 / 56
Course method: present

Number of ECTS credits: 8

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚCHV/BFC1a/01

Conditions for course completion:
Examination

Learning outcomes:

Brief outline of the course:
General laboratory work problem with biological systems
Properties of materials and fields
Cryoscopy, pressure, density, surface tension, osmometry
Callorimetry, microgravimetry
Transport a hydrodynamic analysis
Conductivity, ion selective and enzyme electrodes, dielectric spectroscopy
Absorption spectroscopy, circular dichroism
Raman and infrared spectroscopy,
Spectrofluorescence, chemiluminescence, rapid kinetic techniques, Mossebauer spectroscopy
NMR, EPR spectroscopy
Light, x-ray scattering
Atomic field force measurements, tunneling spectroscopy
Microscopy (electron, light, ultrasound)

Recommended literature:
Cantor,C.R.,Schimmel,P.R Biophysical Chemistry, W.H. Freeman and Co., S. Francisco,1980
Kersal E. van Holde, W. Curtis Johnson, P. Shing Ho: Principles of Physical Biochemistry, Prentise Hall, 1998
Atkins PW. Physical Chemistry, Oxford Univ. Press, Oxford, 1998
Hoppe W, Lohmann W, Markl H, Ziegler H (ed.) Biophysics, Springer- Verlag, Berlin, 1983
Articles from Journals

Course language:

Notes:

Course assessment
Total number of assessed students: 155

A	B	C	D	E	FX
13.55	16.77	32.9	21.94	14.19	0.65

Provides: prof. Ing. Marián Antalík, DrSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/PBT1/03	**Course name:** Biotechnology Practical

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 5 **Per study period:** 70
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
test
test

Learning outcomes:
Aim of practicals is to learn a variety of spectral and molecular-biology techniques, and obtain practical biotechniological skills from food and beverage production .

Brief outline of the course:
Characterization and practical application of lactic and alcohol fermentation, spectral methods. Food preservatives and their qualitative and quantitative evidence. Antibiotics - bacteriocins. Vitamins - antioxidant action of vitamin C. Production of cosmetics.

Recommended literature:
M.Ferenčík, B. Škárka, Biochemical laboratory methods, ALFA 1981.
C.Fini, A.Floridi, V.N. Finelli, B.Wittman-Liebold, Laboratory Methodology in Biochemistry, CRC Press, Florida, 1990.
D. Sabolová, Návody na praktické cvičenia z biotechnológie, Košice, 2014, http://www.upjs.sk/pracoviska/univerzitna-kniznica/e-publikacia/#pf .

Course language:

Notes:

Course assessment
Total number of assessed students: 120

A	B	C	D	E	FX
68.33	24.17	5.83	0.83	0.83	0.0

Provides: RNDr. Danica Sabolová, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KFaDF/ KDF/05	**Course name:** Chapters from History of Philosophy of 19th and 20th 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 ECTS credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment

Total number of assessed students: 10

A	B	C	D	E	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: 03.05.2015
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ RP/14	**Course name:** Class Project
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 146	
abs	n
98.63	1.37
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. Ing. Marián Antalík, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ KLB1/03	**Course name:** Clinical Biochemistry

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 170

A	B	C	D	E	FX
62.35	24.71	9.41	1.76	1.76	0.0

Provides: MUDr. Angela Molčányiová, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/KK/07	**Course name:** Communication and Cooperation

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 281

abs	n	z
98.22	1.78	0.0

Provides: Mgr. Ondrej Kalina, PhD., Mgr. Lucia Hricová, PhD.

Date of last modification: 04.09.2019

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ DPO/14	**Course name:** Diploma Thesis and its Defence

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

Number of ECTS credits: 20

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 140

A	B	C	D	E	FX
65.71	25.0	5.71	2.14	1.43	0.0

Provides:

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ ENZ/04	**Course name:** Enzymology

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
combination of written and oral examination

Learning outcomes:
To learn to use the basic equations of enzyme kinetics. Ability to determine basic kinetic and thermodynamic parameters of enzyme catalyzed reaction from experimental measurement.

Brief outline of the course:
1. Introduction. Chemical catalysis – theory of transition state.
2. Enzyme catalysis - types and examples.
3. Cofactors. Active site - lock and key, induced fit. Enzymes - classification.
4. 3D structure of proteins. Noncovalent interactions. Secondary, tertiary and quaternary structures. Convergent and divergent evolution. Multienzyme complexes. Dyanmics of proteins.
5. Ligand binding. Thermodynamics and konetics. Techniques.
6. Chemical kinetics. Basic equations of enzyme kinetics.
7. Regulations of enzyme activity - examples.
8. Conformational change, allosteric regulation. Regulation of metabolic pathways.
9. Experimental determination of enzyme activity. pH and temperature dependence of enzyme catalysis.
10. Determination of individual rate constants. Stop flow. Enzyme-substrate complementarities and the use of binding energy in enzyme catalysis.
11. Reversible inhibition.
12. Irreversible inhibition.
13. Specificity and control mechanisms. „Moonlighting“ enzymes. Applications of enzymes (organic solvents). Catalytic antibodies. Extremophiles. Directed selection of enzymes. Enzymatic reactions with multiple substrates.

Recommended literature:
Alan Fersht “Structure and Mechanism in Protein Science: A Guide to Enzyme Catalysis and Protein Folding. “ (3rd Ed. W. H. Freeman and Company, 1999)
Robert A. Copeland: Enzymes (2nd edition), Wiley-VCH, 2000.

Course language:

Notes:

Course assessment
Total number of assessed students: 133

A	B	C	D	E	FX
38.35	22.56	17.29	15.04	6.02	0.75

Provides: doc. RNDr. Erik Sedlák, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ EMDP/03	**Course name:** Experimental Methods to Master´s Thesis

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 6 **Per study period:** 84
Course method: present

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 368

A	B	C	D	E	FX
94.29	3.8	0.54	0.54	0.82	0.0

Provides: RNDr. Martin Vavra, PhD., doc. RNDr. Peter Pristaš, CSc., doc. RNDr. Peter Javorský, DrSc., doc. RNDr. Ján Imrich, CSc., doc. RNDr. Mária Kožurková, CSc., prof. Ing. Marián Antalík, DrSc., prof. RNDr. Juraj Černák, DrSc., prof. RNDr. Katarína Györyová, DrSc., prof. RNDr. Jozef Gonda, DrSc., prof. RNDr. Andrej Oriňak, PhD., doc. RNDr. Zuzana Vargová, Ph.D., doc. RNDr. Taťána Gondová, CSc., doc. RNDr. Miroslava Martinková, PhD., prof. RNDr. Renáta Oriňaková, DrSc., doc. RNDr. Ivan Potočňák, PhD., doc. RNDr. Erik Sedlák, PhD., prof. RNDr. Vladimír Zeleňák, DrSc., doc. RNDr. Viktor Víglaský, PhD., doc. RNDr. Katarína Reiffová, PhD., RNDr. Miroslava Matiková-Maľarová, PhD., doc. RNDr. Juraj Kuchár, PhD., RNDr. Nataša Tomášková, PhD., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Dušan Koščík, CSc., RNDr. Daniela Kladeková, CSc., RNDr. Slávka Hamuľaková, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD., RNDr. Zuzana Kudličková, PhD., RNDr. Lívia Kocúrová, PhD., prof. Mgr. Vasiľ Andruch, DSc., prof. Dr. Yaroslav Bazeľ, DrSc., RNDr. Ladislav Janovec, PhD., doc. Ing. Viera Vojteková, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/DF2p/03	**Course name:** History of Philosophy 2 (General Introduction)

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 739

A	B	C	D	E	FX
60.89	13.8	12.58	8.66	3.38	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: 25.03.2020

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/IH2/03	**Course name:** Idea Humanitas 2 (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 ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 8

A	B	C	D	E	FX
87.5	12.5	0.0	0.0	0.0	0.0

Provides: Doc. PhDr. Peter Nezník, CSc.

Date of last modification: 12.02.2020

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ LCDP/15	**Course name:** Laboratory Practice to Diploma Thesis
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 44	

abs	n
97.73	2.27

Provides: doc. RNDr. Mária Kožurková, CSc., prof. Ing. Marián Antalík, DrSc., doc. RNDr. Viktor Víglaský, PhD., doc. RNDr. Erik Sedlák, PhD., RNDr. Nataša Tomášková, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD.
Date of last modification:
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ BMB1/03	**Course name:** Modern Trends in Biochemistry and Molecular Biology

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

Number of ECTS credits: 6

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
To give an overview on modern biochemistry and molecular biology methods and its application in practice

Brief outline of the course:
Application of modern biochemistry and molecular biology methods for gene analysis, quantification of gene expression, nanotechnology and biotechnology.

Recommended literature:
Alberts et al: Molecular Biology of the Cell, Garland Publishing, 1994
Watson et al., Recombinant DNA, New York, 1992
Bloomfield et al., Nucleic acids - structures, properties and function, Canada, 1999

Course language:

Notes:

Course assessment
Total number of assessed students: 180

A	B	C	D	E	FX
32.78	23.89	26.11	13.33	3.33	0.56

Provides: doc. RNDr. Viktor Víglaský, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ VPC/01	**Course name:** PC in Biomacromolecule Analysis

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Analysis of nucleotide and aminoacid sequences by personal computers (PC) and free software (BioEdit, Prophet, GeneDoc, RasMol, VNTI-Viewer) and web-based analysis tool (blast, fasta, clustal). Introduction to public biological databases (PubMed, GenBank, SwissProt) and data mining. Specialized analysis – molecular taxonomy, phylogenetic analysis, prediction of biopolymers structure.

Brief outline of the course:
Usage of PC and WWW network for biological sequence analysis. History of Internet, FTP, E-mail services. Freely available biological and biomedicinal databases (PubMed, GenBank, SwissProt). Nucleotide sequence analysis. Protein sequence analysis. Pairwise sequence comparisons – blast software. Multiple sequence comparisons – clustal software. Molecular taxonomy of bacteria. Evolutionary and phylogenetic analysis. Seconadary and tertiary structure prediction.

Recommended literature:
The phylogenetic handbook, Salemi, M. a Vandamme, A-M., Cambridge University Press, 2003, 485 s

Course language:

Notes:

Course assessment
Total number of assessed students: 58

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

Provides: doc. RNDr. Peter Pristaš, CSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/PAT1/03	**Course name:** Patobiochemistry

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

Number of ECTS credits: 7

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚCHV/KLB1/03

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 159

A	B	C	D	E	FX
67.3	18.87	9.43	4.4	0.0	0.0

Provides: MUDr. Angela Molčányiová, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Dek. PF UPJŠ/PPZ/13	**Course name:** Personality Development and Key Competences for Success 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 ECTS credits: 2

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

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 39

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

Provides: RNDr. Peter Stefányi, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ PSF/03	**Course name:** Proteins, Structure and Function

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Written examination

Learning outcomes:
Ability to suggest/use suitable methods for determination of structural and functional properties of proteins.

Brief outline of the course:
Chemical properties of polypeptides. Detection of amino acids, peptides and proteins. Biosynthesis of proteins – procaryotes. Biosynthesis of proteins – eucaryotes. Topogenesis. Protein folding. Postranslational covalent modifications of polypeptide chains. Physical interactions that determine the properties of proteins. Conformational properties of polypeptide chains. Proteins in solution and in membranes. Interactions with other molecules. Allostery. Degradation. Extremophiles.

Recommended literature:
Creighton T. E.: Proteins: Structures and Molecular Properties (2. vyd.), 1992
Buxbaum E.: Fundamentals of Protein Structure and Function, 2007
Nölting B.: Protein Folding Kinetics: Biophysical Methods (2. vyd.), 2006
Nelson D. L., Cox M. M.: Lehninger Principles of Biochemistry (4. vyd.), 2004
Whitford D.: Proteins: Structure and Function, 2011
Kessel A., Ben-Tal N.: Introduction to Proteins: Structure, Function, and Motion, 2011

Course language:

Notes:

Course assessment
Total number of assessed students: 157

A	B	C	D	E	FX
38.85	21.02	17.83	12.1	9.55	0.64

Provides: doc. RNDr. Erik Sedlák, PhD., RNDr. Rastislav Varhač, PhD.

Date of last modification: 04.02.2016

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PPZMg/12	**Course name:** Psychology and Health Psychology (Master´s Study)

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 226

A	B	C	D	E	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: 07.03.2018

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ ÚTVŠ/CM/13	**Course name:** Seaside Aerobic Exercise

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

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:

Notes:

Course assessment
Total number of assessed students: 42

abs	n
11.9	88.1

Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.
Date of last modification: 15.03.2019
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ SP1/14	**Course name:** Semestral Project I

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 148

abs	n
99.32	0.68

Provides: RNDr. Rastislav Serbin, PhD., doc. RNDr. Mária Kožurková, CSc., prof. Dr. Yaroslav Bazeľ, DrSc., prof. RNDr. Jozef Gonda, DrSc., prof. RNDr. Katarína Györyová, DrSc., doc. RNDr. Ján Imrich, CSc., doc. RNDr. Miroslava Martinková, PhD., doc. RNDr. Erik Sedlák, PhD., RNDr. Nataša Tomášková, PhD., doc. RNDr. Viktor Víglaský, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD., RNDr. Jana Šandrejová, PhD., RNDr. Miroslav Almáši, PhD., doc. RNDr. Ivan Potočňák, PhD., prof. RNDr. Juraj Černák, DrSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ SP2/14	**Course name:** Semestral Project II

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

Number of ECTS credits: 6

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 100

abs	n
100.0	0.0

Provides: RNDr. Rastislav Serbin, PhD., doc. RNDr. Mária Kožurková, CSc., prof. Mgr. Vasiľ Andruch, DSc., prof. Ing. Marián Antalík, DrSc., prof. Dr. Yaroslav Bazeľ, DrSc., doc. RNDr. Erik Sedlák, PhD., doc. RNDr. Miroslava Martinková, PhD., doc. RNDr. Andrea Straková Fedorková, PhD., RNDr. Monika Tvrdoňová, PhD., doc. RNDr. Mária Ganajová, CSc., RNDr. Martin Vavra, PhD., prof. RNDr. Jozef Gonda, DrSc., doc. Ing. Viera Vojteková, PhD., prof. RNDr. Katarína Györyová, DrSc., prof. RNDr. Vladimír Zeleňák, DrSc., doc. RNDr. Ján Imrich, CSc., doc. RNDr. Ivan Potočňák, PhD., doc. RNDr. Katarína Reiffová, PhD., RNDr. Nataša Tomášková, PhD., doc. RNDr. Viktor Víglaský, PhD., RNDr. Danica Sabolová, PhD., RNDr. Rastislav Varhač, PhD., doc. RNDr. Peter Pristaš, CSc., RNDr. Jana Šandrejová, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ SDP/03	**Course name:** Seminar to Diploma Thesis

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: II.

Prerequisities:

Conditions for course completion:
Consultations, discussions and presentations.
Assessment of student's work during the semester by supervisor.

Learning outcomes:
Teach the student to prepare presentation of his own results, critical acceptation of information, participate in scientific discussion and formal requirements of written diploma work.

Brief outline of the course:
Presentation of literature information and own experimental results, scientific discussions and writing of scientific text.

Recommended literature:
According to the field of diploma work.

Course language:

Notes:

Course assessment
Total number of assessed students: 302

A	B	C	D	E	FX
96.03	2.32	0.99	0.33	0.0	0.33

Provides: RNDr. Martin Vavra, PhD., doc. RNDr. Andrea Straková Fedorková, PhD., doc. RNDr. Mária Kožurková, CSc., prof. RNDr. Juraj Černák, DrSc., prof. RNDr. Katarína Györyová, DrSc., prof. Dr. Yaroslav Bazeľ, DrSc., prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Vladimír Zeleňák, DrSc., doc. RNDr. Zuzana Vargová, Ph.D., doc. RNDr. Ivan Potočňák, PhD., doc. RNDr. Taťána Gondová, CSc., doc. RNDr. Katarína Reiffová, PhD., doc. RNDr. Mária Reháková, CSc., prof. Mgr. Vasiľ Andruch, DSc., prof. RNDr. Renáta Oriňaková, DrSc., RNDr. Miroslava Matiková-Maľarová, PhD., doc. RNDr. Juraj Kuchár, PhD., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Lívia Kocúrová, PhD.

Date of last modification: 20.09.2017

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/SPVKE/07	**Course name:** Social-Psychological Training of Coping with Critical Life 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 ECTS credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 126

abs	n	z
97.62	2.38	0.0

Provides: Mgr. Ondrej Kalina, PhD.
Date of last modification: 18.03.2019
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ TVa/11	**Course name:** Sports Activities I.
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 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:	
Notes:	

Course assessment
Total number of assessed students: 12947

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.64	0.06	0.0	0.0	0.0	0.03	7.22	4.05

Provides: doc. PhDr. Ivan Šulc, CSc., Mgr. Zuzana Küchelová, PhD., Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD., Mgr. Marcel Čurgali, PaedDr. Jana Potočníková, PhD.

Date of last modification: 18.03.2019

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ TVb/11	**Course name:** Sports Activities II.
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 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:	
Notes:	

Course assessment
Total number of assessed students: 11186

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.58	0.55	0.02	0.0	0.0	0.05	9.99	3.8

Provides: doc. PhDr. Ivan Šulc, CSc., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Peter Bakalár, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD., Mgr. Marcel Čurgali, PaedDr. Jana Potočníková, PhD.

Date of last modification: 18.03.2019

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ TVc/11	**Course name:** Sports Activities III.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 3.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 7741

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
90.03	0.04	0.01	0.0	0.0	0.03	4.04	5.85

Provides: doc. PhDr. Ivan Šulc, CSc., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Peter Bakalár, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD., Mgr. Marcel Čurgali, PaedDr. Jana Potočníková, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ TVd/11	**Course name:** Sports Activities IV.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 5086

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.19	0.29	0.04	0.0	0.0	0.0	6.78	7.69

Provides: doc. PhDr. Ivan Šulc, CSc., Mgr. Zuzana Küchelová, PhD., Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Lucia Kršňáková, PhD., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD., Mgr. Marcel Čurgali, PaedDr. Jana Potočníková, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ SVKBCH/03	**Course name:** Students Scientific Conference - Seminar and Presentation

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 64

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

Provides: doc. RNDr. Mária Kožurková, CSc.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ LKSp/13	**Course name:** Summer Course-Rafting of TISA River
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 36s **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
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:	
Notes:	

Course assessment Total number of assessed students: 151	
abs	n
45.03	54.97
Provides: Mgr. Peter Bakalár, PhD.	
Date of last modification: 18.03.2019	
Approved: prof. Ing. Marián Antalík, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ KP/12	**Course name:** Survival Course
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 36s **Course method:** present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
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:	
Notes:	

Course assessment Total number of assessed students: 392	
abs	n
44.39	55.61
Provides: Mgr. Marek Valanský, MUDr. Peter Dombrovský	
Date of last modification: 15.03.2019	
Approved: prof. Ing. Marián Antalík, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/UPR/03	**Course name:** The Art of Aiding by Verbal Exchange

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 49

A	B	C	D	E	FX
85.71	4.08	2.04	2.04	2.04	4.08

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 18.03.2019

Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ ZKLS//13	**Course name:** Winter Ski Training Course
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 36 **Per study period:** 504 **Course method:** present	
Number of ECTS credits: 2	
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:	
Notes:	

Course assessment
Total number of assessed students: 97

abs	n
32.99	67.01

Provides: doc. PhDr. Ivan Šulc, CSc., Mgr. Marek Valanský
Date of last modification: 03.05.2015
Approved: prof. Ing. Marián Antalík, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ XBCH/04	**Course name:** Xenobiochemistry

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
test

Learning outcomes:
Students obtained modern knowledge of xenobiotics metabolism in living organisms

Brief outline of the course:
Characterization of metabolism of xenobiotics in the liver. The basic types of biotransformation reactions - oxidation, reduction, hydrolysis, conjugation. Biotransformation enzymes. Free radicals and their effects, lipid peroxidation.

Recommended literature:
Z. Ďuračková: Voľné radikály a antioxidanty v medicíne, Slovak akademik press 1998.
Z.Vodrážka : Biochémia, Praha, 1996.
A. Jindra: Biochémia, molekulárnobiologické a farmakologické aspekty, Praha, 1985.

Course language:

Notes:

Course assessment
Total number of assessed students: 75

A	B	C	D	E	FX
62.67	20.0	9.33	2.67	5.33	0.0

Provides: prof. Ing. Marián Antalík, DrSc., RNDr. Danica Sabolová, PhD.

Date of last modification: 03.05.2015

Approved: prof. Ing. Marián Antalík, DrSc.