

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 credits: 2					
Recommended semester/trimester of the course: 2.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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:					
Course assessment Total number of assessed students: 35					
A	B	C	D	E	FX
62.86	17.14	17.14	2.86	0.0	0.0
Provides: RNDr. Rastislav Varhač, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 5					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Cell metabolism, ATP, polyphosphates. Electron transport chain, mitochondria, chloroplast, chemoautotrops. Photosynthesis, bacteriorhodopsin. 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, Biochimie, 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:					
Course assessment Total number of assessed students: 10					
A	B	C	D	E	FX
40.0	50.0	10.0	0.0	0.0	0.0

Provides: prof. Ing. Marián Antalík, DrSc.
Date of last modification: 24.02.2017
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites: 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:					
Course assessment Total number of assessed students: 33					
A	B	C	D	E	FX
45.45	33.33	18.18	0.0	3.03	0.0
Provides:					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 6					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion: 2 tests test					
Learning outcomes: The aim of biochemistry of microorganism 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:					
Course assessment Total number of assessed students: 131					
A	B	C	D	E	FX
54.96	22.9	12.98	8.4	0.76	0.0
Provides: doc. RNDr. Mária Kožurková, CSc.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 5	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisites:	
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 Wiley & Sons, 1990 Kersal E. van Holde, W. Curtis Johnson, P. Shing Ho: Principles of Physical Biochemistry, Prentice 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 Pattern, Cambridge Univ. Press., NY, 1993	

Course language:					
Course assessment					
Total number of assessed students: 152					
A	B	C	D	E	FX
13.16	17.11	34.21	23.68	11.84	0.0
Provides: prof. Ing. Marián Antalík, DrSc.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 8					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites: 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:					
Course assessment Total number of assessed students: 143					
A	B	C	D	E	FX
11.89	17.48	34.27	21.68	13.99	0.7

Provides: prof. Ing. Marián Antalík, DrSc.
Date of last modification: 24.02.2017
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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:					
Course assessment Total number of assessed students: 86					
A	B	C	D	E	FX
47.67	25.58	15.12	6.98	4.65	0.0
Provides: RNDr. Nataša Tomášková, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 6					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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:					
Course assessment Total number of assessed students: 161					
A	B	C	D	E	FX
32.92	24.84	28.57	9.32	3.73	0.62
Provides: doc. RNDr. Viktor Víglaský, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 5	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisites:	
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, Stereoelectronic 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:	
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 734					
A	B	C	D	E	FX
60.63	13.9	12.67	8.72	3.41	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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 20					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 99					
A	B	C	D	E	FX
67.68	24.24	4.04	2.02	2.02	0.0
Provides:					
Date of last modification: 27.02.2017					
Approved: Guaranteeprof. 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 credits: 6					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 316					
A	B	C	D	E	FX
94.94	2.85	0.63	0.63	0.95	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. 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 Potočník, PhD., doc. RNDr. Erik Sedlák, PhD., doc. RNDr. Vladimír Zeleňák, PhD., 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 Hamul'áková, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD., RNDr. Zuzana Kudličková, PhD., RNDr. Lívia Kocúrová, PhD., prof. Mgr. Vasil' Andruch, DrSc., prof. Dr. Yaroslav Bazel', DrSc., RNDr. Ladislav Janovec, PhD., doc. Ing. Viera Vojteková, PhD., doc. RNDr. Andrea Straková Fedorková, PhD., Mgr. Miroslav Almáši, PhD.					
Date of last modification: 27.02.2017					
Approved: Guaranteeprof. 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 credits: 5	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisites:	
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. Dynamics of proteins. 5. Ligand binding. Thermodynamics and kinetics. 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:	
Course assessment	

Total number of assessed students: 106					
A	B	C	D	E	FX
38.68	21.7	16.04	15.09	7.55	0.94
Provides: doc. RNDr. Erik Sedlák, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2					
Recommended semester/trimester of the course: 3.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2					
Recommended semester/trimester of the course: 2.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2		
Recommended semester/trimester of the course: 3.		
Course level: II.		
Prerequisites:		
Conditions for course completion:		
Learning outcomes:		
Brief outline of the course:		
Recommended literature:		
Course language:		
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: 16.02.2017		
Approved: Guaranteeprof. 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 credits: 5					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 150					
A	B	C	D	E	FX
62.67	26.0	8.0	2.0	1.33	0.0
Provides: MUDr. Angela Molčányiová, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 329	
abs	n
47.11	52.89
Provides: MUDr. Peter Dombrovský, Mgr. Marek Valanský	
Date of last modification: 23.02.2017	
Approved: Guaranteeprof. 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: Laboratórne cvičenia k diplomovej práci
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 6	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 25	
abs	n
96.0	4.0
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: 24.02.2017	
Approved: Guaranteeprof. 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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 126	
abs	n
45.24	54.76
Provides: Mgr. Peter Bakalár, PhD.	
Date of last modification: 23.02.2017	
Approved: Guaranteeprof. 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 credits: 7					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites: ÚCHV/KLB1/03					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 147					
A	B	C	D	E	FX
70.07	19.73	8.16	2.04	0.0	0.0
Provides: MUDr. Angela Molčányiová, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 6					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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 biotechnological 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, Návodý na praktické cvičenia z biotechnológie, Košice, 2014, http://www.upjs.sk/pracoviska/univerzitna-kniznica/e-publikacia/#pf .					
Course language:					
Course assessment Total number of assessed students: 99					
A	B	C	D	E	FX
71.72	23.23	3.03	1.01	1.01	0.0
Provides: RNDr. Danica Sabolová, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2					
Recommended semester/trimester of the course: 1., 3.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 13.02.2017					
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 16.02.2017					
Approved: Guaranteeprof. 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 credits: 5					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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:					
Course assessment Total number of assessed students: 136					
A	B	C	D	E	FX
42.65	20.59	18.38	11.03	6.62	0.74
Provides: doc. RNDr. Erik Sedlák, PhD., RNDr. Rastislav Varhač, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 6	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 121	
abs	n
98.35	1.65
Provides: Mgr. Miroslav Almáši, PhD., RNDr. Nataša Tomášková, PhD., RNDr. Danica Sabolová, PhD., doc. RNDr. Mária Kožurková, CSc., RNDr. Rastislav Varhač, PhD.	
Date of last modification: 24.02.2017	
Approved: Guaranteeprof. 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 credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: II.					
Prerequisites:					
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 acceptance 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:					
Course assessment Total number of assessed students: 259					
A	B	C	D	E	FX
95.37	2.7	1.16	0.39	0.0	0.39
Provides: RNDr. Martin Vavra, PhD., doc. RNDr. Andrea Straková Fedorková, PhD., doc. RNDr. Mária Kožurková, CSc., prof. RNDr. Juraj Černák, DrSc., prof. Dr. Yaroslav Bazel', DrSc., prof. RNDr. Andrej Oriňak, PhD., doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zuzana Vargová, Ph.D., doc. RNDr. Ivan Potočník, PhD., doc. RNDr. Taťána Gondová, CSc., doc. RNDr. Katarína Reiffová, PhD., prof. Mgr. Vasil' Andruch, DrSc., prof. RNDr. Renáta Oriňaková, DrSc., RNDr. Miroslava Matiková-Maľarová, PhD., doc. RNDr. Juraj Kuchár, PhD., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Livia Kocúrová, PhD., Mgr. Miroslav Almáši, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 4	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 107	
abs	n
99.07	0.93
Provides: RNDr. Rastislav Serbin, PhD., doc. RNDr. Mária Kožurková, CSc., prof. Dr. Yaroslav Bazel', DrSc., prof. RNDr. Jozef Gonda, 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.	
Date of last modification: 27.02.2017	
Approved: Guaranteeprof. 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 credits: 6	
Recommended semester/trimester of the course:	
Course level: II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 72	
abs	n
100.0	0.0
Provides: RNDr. Rastislav Serbin, PhD., doc. RNDr. Mária Kožurková, CSc., prof. Mgr. Vasil' Andruch, DrSc., prof. Ing. Marián Antalík, DrSc., prof. Dr. Yaroslav Bazel', 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., doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Ján Imrich, CSc., doc. RNDr. Ivan Potočník, 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., Mgr. Miroslav Almáši, PhD., prof. RNDr. Juraj Černák, DrSc., doc. RNDr. Juraj Kuchár, PhD., RNDr. Miroslava Matiková-Maľarová, PhD., doc. RNDr. Zuzana Vargová, Ph.D.	
Date of last modification: 27.02.2017	
Approved: Guaranteeprof. 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 credits: 2		
Recommended semester/trimester of the course: 2.		
Course level: II.		
Prerequisites:		
Conditions for course completion:		
Learning outcomes:		
Brief outline of the course:		
Recommended literature:		
Course language:		
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: 16.02.2017		
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 49					
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2							
Recommended semester/trimester of the course: 1.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 10457							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.25	0.0	0.0	0.0	0.0	0.02	7.81	3.92
Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteeprof. 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 credits: 2							
Recommended semester/trimester of the course: 2.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 9779							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.09	0.61	0.02	0.0	0.0	0.02	10.36	3.9
Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteeprof. 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 credits: 2							
Recommended semester/trimester of the course: 3.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 6188							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
89.66	0.03	0.0	0.0	0.0	0.0	4.36	5.95
Provides: PaedDr. Jana Potočnicková, PhD., 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., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteeprof. 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 credits: 2							
Recommended semester/trimester of the course: 4.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 4644							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.66	0.32	0.04	0.0	0.0	0.0	6.61	7.36
Provides: Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteeprof. 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 credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
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: 16.02.2017					
Approved: Guaranteeprof. 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 credits: 4					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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 biomedical 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. Secondary and tertiary structure prediction.					
Recommended literature: The phylogenetic handbook, Salemi, M. a Vandamme, A-M., Cambridge University Press, 2003, 485 s					
Course language:					
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: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 5					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
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 antioxidyanty v medicíne, Slovak akademik press 1998. Z. Vodrážka : Biochémia, Praha, 1996. A. Jindra: Biochémia, molekulárnobiologické a farmakologické aspekty, Praha, 1985.					
Course language:					
Course assessment Total number of assessed students: 56					
A	B	C	D	E	FX
66.07	17.86	8.93	1.79	5.36	0.0
Provides: RNDr. Danica Sabolová, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteeprof. 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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 15	
abs	n
26.67	73.33
Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.	
Date of last modification: 23.02.2017	
Approved: Guaranteeprof. Ing. Marián Antalík, DrSc.	