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COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ NMR1/00	Course name: 1D & 2D NMR Spectroscopy
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 3 Per study period: 28 / 42 Course method: present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisites:	
Conditions for course completion: Active student's work at seminars and individual homework, written examinations in 7th and 14th semestral week. Terminal examination in written form (4 exercises from combined applications of 1D a 2D NMR and other spectral methods) and oral form (3 themes) joining theoretical knowledge with a practical solution of selected NMR problems and exercises.	
Learning outcomes: Students will learn how to analyze structure and properties of organic, inorganic and biomolecular compounds by 1D and 2D proton and carbon NMR spectra, quantitative NMR analysis, and practical applications in various fields of science and technology.	
Brief outline of the course: Theoretical principles of nuclear magnetic resonance (NMR), basic NMR pulse techniques and Fourier transformation, NMR spectrometers, description of NMR by vector models. Parameters of one- (1D) and two-dimensional (2D) NMR spectra, practical application of ¹ H and ¹³ C NMR spectra and basic correlated 2D spectra for structure and stereochemical arrangement, elucidation of reaction mechanisms, molecular dynamics, physico-chemical properties and quantitative analysis of chemical compounds.	
Recommended literature: 1. Friebolin H.: Basic One- and Two-Dimensional NMR Spectroscopy, 5. Ed., Wiley, 2010. 2. T. D. W. Claridge: High-Resolution NMR Techniques in Organic Chemistry, Elsevier, 1999. 3. Atta-ur-Rahman, M. I. Choudhary: Solving Problems with NMR spectroscopy, Academic Press 1996. 4. H.-O. Kalinowski, S. Berger, S. Braun: Carbon-13 NMR Spectroscopy. Wiley, New York 1988. 5. A. E. Derome: Modern NMR Techniques for Chemistry Research. Pergamon Press, Oxford 1987. 6. E. Pretsch, B. Buhlmann, C. Affolter: Structure Determination of Organic Compounds. Tables of Spectral Data. Springer Verlag, Berlin 2000. 7. E. Breitmaier: Structure Elucidation by NMR in Organic Chemistry: A Practical Guide, 3rd Ed., Wiley, 2002.	

8. E. Breitmaier, W. Voelter: Carbon-13 NMR Spectroscopy. VCH Weinheim, 1990.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 173					
A	B	C	D	E	FX
38.15	26.01	24.28	9.83	1.73	0.0
Provides: doc. RNDr. Ján Imrich, CSc.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/APO1/02		Course name: Analysis of Psychotropic and Narcotic Substances			
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: 3.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Examination					
Learning outcomes: Survey of classification, effects/mechanism and properties of psychotropic and narcotic substances, drug dependences and methods used in the (toxicological) analysis of drugs.					
Brief outline of the course: Drug, drug dependence. Psychotropic and narcotic substances - classification, properties and laws. Dose and tolerance, therapy, prevention. Pharmacokinetics of the drug. Biological effects, biotransformations, receptors. The methods used in the analysis of the drugs (clinical, forensic analysis) - opiates, cocaine, amphetamines and their analogues, hallucinogenics, cannabis products, etc.					
Recommended literature: 1. M. D. Cole: The Analysis of Controlled Substances, Wiley 2003. 2. E. Hodgson: A Textbook of Modern Toxicology, Wiley 2004.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 239					
A	B	C	D	E	FX
94.98	3.77	0.84	0.42	0.0	0.0
Provides: doc. RNDr. Tat'ána Gondová, CSc.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ANAL/18	Course name: Analysis of drugs
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.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes: Survey of basic principles, methods and new trends in drugs analysis.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 14	
abs	n
100.0	0.0
Provides: doc. RNDr. Tat'ána Gondová, CSc.	
Date of last modification: 03.02.2020	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ ACHSP/14/15		Course name: Analytical Chemistry			
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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 48					
A	B	C	D	E	FX
50.0	25.0	18.75	6.25	0.0	0.0
Provides:					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ ANCH2/06		Course name: Analytical Chemistry III.			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of ECTS credits: 6					
Recommended semester/trimester of the course: 1.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test Test					
Learning outcomes: Advanced theoretical and practical knowledge of of instrumental methods of analysis.					
Brief outline of the course: Analytical chemistry. Objects of analysis. Instrumental equipment of a modern analytical laboratory. Relationship between analytical chemistry and other scientific branches. Problems and trends in recent analytical chemistry. Speed and factors affecting the speed of analysis. Validation of analytical methods. Non-destructive methods of analysis, principle, utility. Distance analysis. Automation of analysis, examples. Flow analysis – FIA and SIA. Analytical reaction, chemical equilibrium in solutions. Kinetic analytical methods. Radiochemical analytical methods. Secondary Ion Mass Spectrometry. X-ray Photoelectron spectrometry. Mass spectrometry. Roentgen spectroscopic methods.					
Recommended literature: 1. H.H. Willard, L.L. Merritt, Jr., J.A. Dean, F.A. Settle, Jr.: Instrumental Methods of Analysis, Wadsworth Publ. Co., Belmont (CA) 1988, ISBN 0-534-08142-8					
Course language:					
Notes:					
Course assessment Total number of assessed students: 86					
A	B	C	D	E	FX
39.53	32.56	22.09	1.16	3.49	1.16
Provides: prof. Dr. Yaroslav Bazel', DrSc.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KF/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.					
Prerequisites:					
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: 17.09.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ AAS1/03		Course name: Atomic Spectrochemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of ECTS credits: 6					
Recommended semester/trimester of the course: 1.					
Course level: II.					
Prerequisites:					
Conditions for course completion: On the basis of the practical results and seminary works. On the basis of continuous assessment and oral examination.					
Learning outcomes: Theoretical information and practical experience with atomic absorption and emission methods used in analytical chemistry.					
Brief outline of the course: Information and the role of atomic absorption and emission spectroscopy in analytical chemistry. History of the development of spectral methods. Theoretical foundations, principles and classification of optical methods. Experimental foundations of spectral methods. Atomic absorption spectrometry. Atomic emission spectrometry. Atomic fluorescence spectrometry. X-ray spectrometry. Absorption spectroscopy in the visible, ultraviolet and near-infrared region and its analytical applications.					
Recommended literature: I. Němcová, L. Čermáková, P. Rychlovský: Spektrometrické analytické metody. Karolinum, Praha, 1997. D. A. Skoog, J. J. Leary: Instrumental Analytics. Springer, Berlin, 1996. B. Welz, M. Sperling: Atomic Absorption Spectrometry, Wiley-VCH, Weinheim, 1998. H. Günzler, A. Williams: Handbook of Analytical Techniques. Wiley-VCH, Weinheim, 2001. G. Gauglitz, T. Vo-Dinh: Handbook of Spectroscopy. Wiley-VCH, Weinheim, 2003.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 93					
A	B	C	D	E	FX
38.71	23.66	20.43	12.9	4.3	0.0
Provides: doc. Ing. Viera Vojteková, PhD.					

Date of last modification: 03.05.2015
Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BACH1/03	Course name: Bioanalytical Chemistry
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisites:	
Conditions for course completion: Written test Oral examination	
Learning outcomes: Theoretical knowledge and practical experience regarding application of analytical chemistry and analytical methods to laboratory medicine.	
Brief outline of the course: Introduction to Bioanalytical Chemistry, biological samples classification. Factors affecting analytes in biological samples. Collection, transport and storage of biological samples. Selected procedures of sample pretreatment Control and management of quality in clinical laboratory. Enzymes in bioanalysis. Mechanism of enzyme catalysis. Enzymes like analytes and analytical reagents. Moderators of enzyme activity. Introduction to Immunochemical methods, Precipitation and Agglutination methods. Immunodiffusional methods. Radioimmunoanalytic methods (RIA). Nonisotopic methods (EIA, ELISA, LIA, FIA). Investigative procedures in medical microbiology. Principles miniaturization of analytical procedures in clinical chemistry, microchips, nanochips, sensors and biosensors.	
Recommended literature: 1. Mikkelsen, S. R., Cortón, E.: Bioanalytical Chemistry, Wiley, 2004. 2. Wilson, I.: Bioanalytical Separations 4, (Handbook of Analytical Separations), Elsevier, 2003. 3. Suelter, C. H., Kricka, L. J.: Methods of Biochemical Analysis, Vol.37, Bioanalytical Instrumentation, Wiley, 1994. 4. Rodriguez-Diaz, R., Wehr, T., Tuck, S.: Analytical Techniques for Biopharmaceutical Development, Marcell Dekker, 2005.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 100					
A	B	C	D	E	FX
34.0	37.0	19.0	9.0	1.0	0.0
Provides: doc. RNDr. Katarína Reiffová, PhD.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KF/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.					
Prerequisites:					
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: PhDr. Dušan Hruška, PhD.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ ACM1/06		Course name: Chemometrics			
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: 2.					
Course level: II.					
Prerequisites:					
Conditions for course completion: On the basis of the tests and seminary works On the basis of the continuous assesment and examination.					
Learning outcomes: Knowledge about the correct and theoretically based evaluation of analytical results and methods. Knowledge about the methods of validation and accreditation of laboratories. Knowledge about the result uncertainties and methods of decision statistics.					
Brief outline of the course: The principles of the mathematic- statistical methods used in analytical chemistry. Probability distribution of the measuring results. Classic and robust estimation of the mean value and variance. Statistical tests and their application. Accuracy, precision, and reliability of the results. Uncertainty of the results. Calibration in the analytical chemistry, linear and nonlinear models. Evaluation of the analytical methods, the chosen optimization approaches. Solving of the typical examples in the frame of the practical lectures.					
Recommended literature: R. G. Brereton: Chemometrics., Wiley, Chichester, 2003 M. Meloun, J. Militký: Kompendium statistického zpracování dat., Academia, Praha 2006					
Course language:					
Notes:					
Course assessment Total number of assessed students: 96					
A	B	C	D	E	FX
37.5	26.04	25.0	6.25	5.21	0.0
Provides: doc. Ing. Viera Vojteková, PhD.					
Date of last modification: 03.05.2015					
Approved:					

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.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 181	
abs	n
98.9	1.1
Provides: doc. RNDr. Miroslav Almáši, PhD., RNDr. Miroslava Matiková Maľarová, PhD., doc. RNDr. Zuzana Vargová, Ph.D., RNDr. Martin Vavra, PhD., prof. RNDr. Juraj Černák, DrSc., doc. RNDr. Juraj Kuchár, PhD., prof. RNDr. Vladimír Zeleňák, DrSc., doc. RNDr. Ivan Potočný, PhD., prof. Dr. Yaroslav Bazel', DrSc., prof. Mgr. Vasil' Andruch, DSc., doc. RNDr. Katarína Reiffová, PhD., doc. RNDr. Tat'ána Gondová, CSc., doc. Ing. Viera Vojteková, PhD., RNDr. Rastislav Serbin, PhD., RNDr. Jana Šandrejová, PhD.	
Date of last modification: 03.05.2015	
Approved:	

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.		
Prerequisites:		
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 Barbierik, PhD.		
Date of last modification: 24.06.2021		
Approved:		

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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 167					
A	B	C	D	E	FX
68.26	22.75	5.99	1.8	1.2	0.0
Provides:					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ EMST/05		Course name: Electrophoretic 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: 5					
Recommended semester/trimester of the course:					
Course level: II.					
Prerequisites:					
Conditions for course completion: Examination					
Learning outcomes: Basic principles of electromigration techniques and their application in practise.					
Brief outline of the course: Principles and classification of electromigration techniques - Zone electrophoresis, The moving boundary method, Focusing methods, Capillary isotachopheresis (cITP), Micellar electrokinetic chromatography (MEKC). Capillary zone electrophoresis (CZE). Principle of separation in an electric field, the phenomena accompanying separation in an electric field - electroosmotic pressure, Joule heat, diffusion, gravity, adsorption, instrumentation, detection, qualitative and quantitative analysis, electrophoretic separation on a microchip. Electrophoresis of nucleic acid, Elektrophoresis of serum proteins					
Recommended literature: 1. Handbook of Capillary Electrophoresis, 2nd Ed., CRC, Boca Raton, 1997 2. P. Boček: Basic course and Advanced course of Isotachopheresis, Institute of Analytical Chemistry, Czech Academy of Science, Brno, 1984					
Course language:					
Notes:					
Course assessment Total number of assessed students: 9					
A	B	C	D	E	FX
33.33	66.67	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Katarína Reiffová, PhD.					
Date of last modification: 04.02.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ AZP1/04		Course name: Environmental Analytical Chemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of ECTS credits: 6					
Recommended semester/trimester of the course: 1., 3.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test / Exam					
Learning outcomes: Getting knowledge about the methods of environmental analysis.					
Brief outline of the course: Sampling techniques and sample pretreatment in environmental analysis. Quality assurance for environmental analysis. Good laboratory practice. Application of the chemometric tools in environmental analysis. Analysis of water, soil, ore, sediment, air, food samples. Analysis of environmental samples by spectroscopic methods. Separation techniques in environmental analysis. Application of electrochemical methods for environmental samples.					
Recommended literature: 1. A.M. Ure, C.M. Davidson, Chemical Speciation in the Environment. Blackie, London 1995. 2. J.R. Dean, Extraction Methods for Environmental Analysis. Wiley, 1988. 3. H.D. Belitz, W. Grosch, P. Schieberle, Food Chemistry, Springer Verlag, 2004.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 255					
A	B	C	D	E	FX
46.27	16.86	18.04	7.06	11.76	0.0
Provides: prof. Mgr. Vasil' Andruch, DSc., RNDr. Rastislav Serbin, PhD., RNDr. Jana Šandrejová, PhD., RNDr. Livia Kocúrová, PhD.					
Date of last modification: 31.01.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ SKACH1/06		Course name: Forensic and Clinical Analytical Chemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of ECTS credits: 5					
Recommended semester/trimester of the course: 2., 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Examination.					
Learning outcomes: Application of analytical methods in forensic medicine.					
Brief outline of the course: Basic principles and definition of subject. Basic criminalistic categories. Criminalistic track. Criminalistic technology. Criminalistic methods, resources, procedures and operations. Introduction to forensic chemistry. Chemical, physical and physicochemical methods of research tracks and material evidence. Fingerprints. Forensic biology. Forensic toxicology.					
Recommended literature: 1.A. Mozayani, C.Noziglia: The Forensic Laboratory Handbook. Procedures and Practice, Springer, 2006 2.H.Duffus, H.G.J.Worth: Fundamental Toxicology, Springer, 2006 3.R.Bertholf, R.Winecker: Chromatographic Methods in Clinical Chemistry and Toxicology, Wiley. 2007					
Course language:					
Notes:					
Course assessment Total number of assessed students: 56					
A	B	C	D	E	FX
60.71	26.79	12.5	0.0	0.0	0.0
Provides: doc. RNDr. Katarína Reiffová, PhD.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KF/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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 742					
A	B	C	D	E	FX
60.78	13.88	12.67	8.63	3.37	0.67
Provides: Doc. PhDr. Peter Nezník, CSc., PhDr. Katarína Mayerová, PhD., doc. Mgr. Róbert Stojka, PhD.					
Date of last modification: 25.03.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ CHHS/07		Course name: Hydrochemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of ECTS credits: 6					
Recommended semester/trimester of the course: 1., 3.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test / Exam					
Learning outcomes: Getting knowledge about the hydrochemistry.					
Brief outline of the course: Types of natural waters and their properties. Chemical content and properties of nature water. Surface waters. Chemical content and properties of surface waters. Fundamentals of aquatic chemistry. The hydrologic cycle. Mineral waters, their classification. Chemical content and properties of mineral waters. Underground water. Processes influencing the content of underground water. Sea water. Waste water. Content and properties of waste water. Basic strages of water analysis. Sampling. Physical properties of water. Methods of analysis of water chemical content. Biochemical oxygen demand. Dissolved oxygen. Distributing diagrams. Interaction of content of water and sediments. Test-methods in water analysis. Automatic monitoring stations. Sensor systems. Requirements for water quality.					
Recommended literature: 1. Handbook of Water and Wastewater Treatment Technologies. Ed. By Nicholas P Cheremisinoff, Butterworth Heinemann, 2001. 576 p. 2. Principles of Water Quality Control, Ed. by Thy Tebbutt, Butterworth Heinemann, 1997. 288 p. 3. Water Technology. Ed. by N. F. Gray, Butterworth Heinemann, 2005. 600 p.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 126					
A	B	C	D	E	FX
29.37	18.25	15.87	18.25	18.25	0.0

Provides: prof. Mgr. Vasil' Andruch, DSc., RNDr. Rastislav Serbin, PhD., RNDr. Livia Kocúrová, PhD.
Date of last modification: 31.01.2020
Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KF/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.					
Prerequisites:					
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
90.0	10.0	0.0	0.0	0.0	0.0
Provides: Doc. PhDr. Peter Nezník, CSc.					
Date of last modification: 12.02.2021					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ KCHR/06		Course name: Liquid Chromatography			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of ECTS credits: 5					
Recommended semester/trimester of the course: 1.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Examination					
Learning outcomes: Advanced knowledges about LC applications					
Brief outline of the course: Theoretical principles of liquid chromatography. Selection and optimisation of separation process. Sample pretreatment. New trends in HPLC techniques - uLC, chiral analysis, multidimensional chromatography, combined systems with LC. Applications.					
Recommended literature: Skoog D.A.: Principles of Instrumental Analysis. Saunders, New York 1985. Mondello L., Lewis A.C., Bartle K.D.: Multidimensional Chromatography, Wiley, 2002.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 54					
A	B	C	D	E	FX
57.41	33.33	7.41	1.85	0.0	0.0
Provides: doc. RNDr. Tat'ána Gondová, CSc.					
Date of last modification: 03.02.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ MOL/06		Course name: Molecular Spectrometry			
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: 2.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test Test					
Learning outcomes: Advanced theoretical and practical knowledge of the methods of molecular spectroscopy.					
Brief outline of the course: Molekular spectrophotometry (Ultra-Violet, Visible, Infrared) for Chemical Analysis. Fourier Transform Infrared. Raman spectrometry. Microwave spectrometry. Electron Paramagnetic Resonance. Nuclear Magnetic Resonance.					
Recommended literature: E.D.Olsen. Modern optical methods of analysis. McGraw-Hill, Inc. 1975. A.Skoog, J.J.Leary. Instrumentelle Analytic. Springer. Berlin-Heidelberg. 1996.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 63					
A	B	C	D	E	FX
41.27	33.33	20.63	4.76	0.0	0.0
Provides: prof. Dr. Yaroslav Bazel', DrSc., RNDr. Rastislav Serbin, PhD.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ PBACH1/03		Course name: Practical in Bioanalytical Chemistry			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Number of ECTS credits: 3					
Recommended semester/trimester of the course: 2., 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Assessment					
Learning outcomes: Application of theoretical knowledge to bioanalytical laboratory practise					
Brief outline of the course: Analytical chemistry in laboratory medicine, basic analysis of biological systems, the nature and processing of biological samples, enzymes in bioanalysis, immunochemical methods, radioimmunoanalytical methods (RIA), electrophoretic methods, analytical significance of nucleic acid, selected separation methods for the analysis of biomolecules.					
Recommended literature: 1. Mikkelsen S.R, Cortón E.: Bioanalytical Chemistry, Wiley, 2004 2. Wilson I.: Bioanalytical Separations 4, (Handbook of Analytical Separations), Elsevier, 2003 3. Suelter C.H., Kricka L.J.: Methods of Biochemical Analysis, Vol.37, Bioanalytical Instrumentation, Wiley, 1994 4. Rodriguez-Diaz R., Wehr T., Tuck S.: Analytical Techniques for Biopharmaceutical Development, Marcell Dekker, 2005					
Course language:					
Notes:					
Course assessment Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Katarína Reiffová, PhD.					
Date of last modification: 03.05.2015					
Approved:					

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.	
Prerequisites:	
Conditions for course completion: Conditions for the continuous assessment during the semester: Active work (maximum 5 points, 2 absences are allowed). Preparation, presentation and discussion on a selected topic - max. 15 points. Written examination (maximum 30 points). Conditions for admission to the exam: min. 25 points. Conditions for the final assessment: Exam: written form (max. 50 points, min. 25 points) Conditions for successful completion of the course: participation in lessons, fulfillment of assignments and at least 66 points from the overall evaluation. Detailed information in the electronic bulletin board of the course in AIS2. The teaching of the subject will be realized by a combined method.	
Learning outcomes: The student will understand the basic concepts and theories of health psychology, can explain salutogenic factors as well as the consequences of risk behavior related to health. He is able to apply the knowledge especially in the field of prevention of burnout syndrome and support of mental health in the work of a teacher.	
Brief outline of the course: 1 Introduction to health psychology 2 Psychoimmunology 3 Personality factors and health 4 Social support as a protective factor in relation to health 5 Subjective well-being 6 Stress and stressful situations and ways to manage them 7 Burnout syndrome 8 Health-promoting behavior, mental hygiene 9 Health risk behavior 10 School as an important factor of health	
Recommended literature: Křivohlavý, J.: Psychologie zdraví. Portál, Praha 2001.	

Křivohlavý, J.: Psychologie nemoci. Grada, Praha, 2002.
 Křivohlavý, J.: Psychologie moudrosti a dobrého života. Grada, Praha, 2009.
 Kebza, V.: Psychosociální determinanty zdraví. Academia, Praha 2005.
 Kahneman, D., Diener, E., Schwarz, N.(Eds), Well-Being. The Foundations of Hedonic Psychology. New York, Russell Sage Foundation, 2003.
 Kaplan, R. M.: Zdravie a správanie človeka. SPN, Bratislava 1996.
 Sarafino, E. P.: Health Psychology. Biopsychosocial interactions. John Wiley and sons 1994.
 Baštecký, J., Šavlík, J., Šimek, J. 1993. Psychosomatická medicína. Praha: Grada
 Tress, W., Krusse, J., Ott, J.: Základní psychosomatická péče. Portál, Praha 2008.

Course language:

slovak

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 Barbierik, PhD.

Date of last modification: 07.07.2021

Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ AVZ1/02		Course name: Sampling of Analytical Samples			
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.					
Prerequisites:					
Conditions for course completion: Examination.					
Learning outcomes:					
Brief outline of the course: Analytical sample, characterisation. Sampling and norms effecting sampling process. Quantity, number of samples. Sampling techniques. Sampling laboratory equipment. Sampling techniques. Sample pre-concentration. Sample storing and conservation. Matrix simplifying, specific analysis. Chromatographic sample pre-treatment.					
Recommended literature: O. Stoeppler: Sampling and Sample Preparation Practical Guide for Analytical Chemists. Academic Press, London, 2002. E. P. Popek: Sampling and Analysis of Environmental Chemical Pollutants. Elsevier Science, San Diego, 2003.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 195					
A	B	C	D	E	FX
60.51	21.54	12.82	4.1	1.03	0.0
Provides: prof. RNDr. Andrej Oriňak, PhD., Mgr. Mária Sabalová, PhD.					
Date of last modification: 26.09.2017					
Approved:					

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: combined, present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
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: 41	
abs	n
12.2	87.8

Provides: Mgr. Agata Horbacz, PhD.
Date of last modification: 15.03.2019
Approved:

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.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 174	
abs	n
99.43	0.57
Provides: RNDr. Rastislav Serbin, PhD., prof. 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, DrSc., RNDr. Nataša Tomášková, PhD., doc. RNDr. Viktor Víglaský, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD., RNDr. Jana Šandrejová, PhD., doc. RNDr. Ivan Potočník, PhD., RNDr. Marián Fabián, CSc., doc. RNDr. Miroslav Almáši, PhD., RNDr. Miroslava Matiková Maľarová, PhD., doc. RNDr. Zuzana Vargová, Ph.D., RNDr. Martin Vavra, PhD., prof. RNDr. Juraj Černák, DrSc., doc. RNDr. Juraj Kuchár, PhD., prof. RNDr. Vladimír Zeleňák, DrSc.	
Date of last modification: 03.05.2015	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SPII/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.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 50	
abs	n
100.0	0.0
Provides: prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Taťána Gondová, CSc., doc. RNDr. Katarína Reiffová, PhD., doc. Ing. Viera Vojteková, PhD., prof. Mgr. Vasil' Andruch, DSc., prof. RNDr. Renáta Oriňáková, DrSc., RNDr. Rastislav Serbin, PhD., RNDr. Jana Šandrejová, PhD.	
Date of last modification: 03.05.2015	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SPIII/15	Course name: Semestral Project III
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 6	
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:	
Notes:	
Course assessment Total number of assessed students: 37	
abs	n
100.0	0.0
Provides: prof. Mgr. Vasil' Andruch, DSc., prof. Dr. Yaroslav Bazel', DrSc., doc. Ing. Viera Vojteková, PhD., doc. RNDr. Tat'ána Gondová, CSc., doc. RNDr. Katarína Reiffová, PhD., RNDr. Jana Šandrejová, PhD.	
Date of last modification:	
Approved:	

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: 3.					
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:					
Notes:					
Course assessment Total number of assessed students: 329					
A	B	C	D	E	FX
95.74	2.13	1.22	0.3	0.3	0.3
Provides: doc. RNDr. Andrea Straková Fedorková, PhD., prof. RNDr. Mária Kožurková, CSc., doc. RNDr. Ján Imrich, CSc., prof. RNDr. Katarína Györyová, DrSc., prof. RNDr. Juraj Černák, DrSc., prof. RNDr. Andrej Oriňák, PhD., prof. RNDr. Jozef Gonda, DrSc., doc. Ing. Viera Vojteková, PhD., doc. RNDr. Katarína Reiffová, PhD., doc. RNDr. Taťána Gondová, CSc., doc. RNDr. Mária Reháková, CSc., doc. RNDr. Miroslava Martinková, PhD., doc. RNDr. Zuzana Vargová, Ph.D., prof. RNDr. Vladimír Zelenák, DrSc., doc. RNDr. Ivan Potočník, PhD., prof. RNDr. Renáta Oriňáková, DrSc., RNDr. Dušan Koščík, CSc., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Slávka Hamuláková, PhD., doc. RNDr. Ladislav Janovec, PhD., RNDr. Zuzana Kudličková, PhD., RNDr. Lívia Kocúrová, PhD., prof. Mgr. Vasil' Andruch, DSc., prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Miroslav Almáši, PhD.					

Date of last modification: 20.09.2017
Approved:

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.		
Prerequisites:		
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: 11.02.2021		
Approved:		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ VSE1a/04		Course name: Special Seminar			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of ECTS credits: 2					
Recommended semester/trimester of the course: 1.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Actual problems of physical and analytical chemistry which are connected with the solution of the students theses.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 48					
A	B	C	D	E	FX
89.58	4.17	2.08	2.08	2.08	0.0
Provides: prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Katarína Reiffová, PhD., doc. RNDr. Taťána Gondová, CSc., doc. Ing. Viera Vojteková, PhD., prof. Mgr. Vasil' Andruch, DSc., doc. RNDr. Andrea Straková Fedorková, PhD., prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Renáta Oriňaková, DrSc., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Rastislav Serbin, PhD.					
Date of last modification: 03.05.2015					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ VSE1b/04		Course name: Special Seminar			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of ECTS credits: 2					
Recommended semester/trimester of the course: 2.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Actual problems of physical and analytical chemistry which are connected with the solution of the students theses.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 46					
A	B	C	D	E	FX
91.3	2.17	4.35	2.17	0.0	0.0
Provides: prof. Dr. Yaroslav Bazel', DrSc., doc. RNDr. Andrea Straková Fedorková, PhD., prof. RNDr. Andrej Oriňak, PhD., doc. Ing. Viera Vojteková, PhD., doc. RNDr. Katarína Reiffová, PhD., prof. RNDr. Renáta Oriňaková, DrSc., doc. RNDr. Tat'ána Gondová, CSc., prof. Mgr. Vasil' Andruch, DSc., RNDr. Andrea Morovská Turoňová, PhD., RNDr. Rastislav Serbin, PhD., RNDr. Jana Šandrejová, PhD.					
Date of last modification: 03.05.2015					
Approved:					

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: combined, present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: I., I.II., II.	
Prerequisites:	
Conditions for course completion: Min. 80% of active participation in classes.	
Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.	
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, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. 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: 12859							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
87.01	0.08	0.0	0.0	0.0	0.04	8.1	4.77
Provides: Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.							
Date of last modification: 13.05.2021							
Approved:							

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: combined, present							
Number of ECTS credits: 2							
Recommended semester/trimester of the course: 2.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion: active participation in classes - min. 80%.							
Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.							
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, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. 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: 11675							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
84.52	0.56	0.02	0.0	0.0	0.05	10.63	4.22

Provides: Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021
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Approved:

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: combined, present							
Number of ECTS credits: 2							
Recommended semester/trimester of the course: 3.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion: min. 80% of active participation in classes							
Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.							
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, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. 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: 7873							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.8	0.05	0.01	0.0	0.0	0.03	4.08	7.04

Provides: Mgr. Marcel Čurgali, Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021

Approved:

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: combined, present							
Number of ECTS credits: 2							
Recommended semester/trimester of the course: 4.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion: min. 80% of active participation in classes							
Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.							
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, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. 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: 5125							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
83.14	0.31	0.04	0.0	0.0	0.0	7.75	8.76

Provides: Mgr. Marcel Čurgali, Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Bc. Richard Melichar, Mgr. Petra Tomková, PhD.

Date of last modification: 13.05.2021

Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ SVK1/00		Course name: Students Scientific Conference (Presentation)			
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: 2., 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 246					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Renáta Oriňaková, DrSc., prof. Dr. Yaroslav Bazel', DrSc.					
Date of last modification: 03.05.2015					
Approved:					

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.	
Prerequisites:	
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: 153	
abs	n
45.75	54.25
Provides: Mgr. Dávid Kaško, PhD.	
Date of last modification: 18.03.2019	
Approved:	

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: combined, present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
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: 393	
abs	n
44.53	55.47
Provides: MUDr. Peter Dombrovský, Mgr. Ladislav Kručanica, PhD.	
Date of last modification: 15.03.2019	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ VKAC/19		Course name: Vybrané kapitoly analytickej chémie			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of ECTS credits: 5					
Recommended semester/trimester of the course: 2., 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test / Exam					
Learning outcomes: Extension of knowledge in the field of analytical chemistry.					
Brief outline of the course:					
Recommended literature:					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 6					
A	B	C	D	E	FX
50.0	33.33	16.67	0.0	0.0	0.0
Provides: prof. Mgr. Vasil' Andruch, DSc.					
Date of last modification: 01.02.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ ATV1/04		Course name: Water Pretreatment			
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: 2., 4.					
Course level: II.					
Prerequisites:					
Conditions for course completion: Test / Exam					
Learning outcomes: Getting a knowledge about the methods of water pretreatment.					
Brief outline of the course: Disinfection of drinking water. Fluoridation of drinking water. Water softening and demineralisation. Waste water. Neutralization of wastewater. Oxidation of wastewater. Physico-chemical methods of waste water treatment. Biological treatment of wastewater.					
Recommended literature: 1. Handbook of Water and Wastewater Treatment Technologies. Ed. By Nicholas P Cheremisinoff, Butterworth Heinemann, 2001. 576 p. 2. Principles of Water Quality Control, Ed. by Thy Tebbutt, Butterworth Heinemann, 1997. 288 p. 3. Water Technology. Ed. by N. F. Gray, Butterworth Heinemann, 2005. 600 p.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 178					
A	B	C	D	E	FX
37.64	15.73	17.42	17.42	11.8	0.0
Provides: prof. Mgr. Vasil' Andruch, DSc.					
Date of last modification: 31.01.2020					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ GAC/18		Course name: Zelená analytická chémia: miniaturizácia, automatizácia, senzory			
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.					
Prerequisites:					
Conditions for course completion: Test / Exam					
Learning outcomes: Getting information about the green chemistry, miniaturization, and automation in analytical chemistry.					
Brief outline of the course:					
Recommended literature:					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 13					
A	B	C	D	E	FX
69.23	23.08	7.69	0.0	0.0	0.0
Provides: prof. Mgr. Vasil' Andruch, DSc.					
Date of last modification: 31.01.2020					
Approved:					