

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJAKA/07	Course name: Academic English
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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II., N	
Prerequisites:	
Conditions for course completion: kontrolný písomný test, aktivita na hodine záverečný písomný test miniprezentácie na dané témy povolené max. 2 absencie stupnica hodnotenia: A 93-100, B 86-92, C 79-85, D 72-78, E 65-71, FX 64 a menej aktivita na hodine predmet končí hodnotením	
Learning outcomes: Osvojenie si a rozvíjanie užitočných techník akademického písomného ako aj ústneho prejavu so zameraním na rozvoj jazykových kompetencií študenta, na upevňovanie a rozvíjanie všetkých jazykových zručností na stredne pokročilej úrovni ovládania jazyka (B2) podľa Spoločného európskeho referenčného rámca pre jazyky). Predmet kladie dôraz na používanie angličtiny v akademickom prostredí.	
Brief outline of the course: Akademická angličtina a jej charakteristiky Čítanie odborných článkov, analýza, parafrázovanie Spájacie slová v akademickom písaní Formálna a neformálna angličtina a ich črty Vyjadrovanie príčiny, následku v akademickom jazyku Čítanie odbornej publikácie, analýza, parafrázovanie Slovo tvorba v anglickom jazyku- predpony a prípony Ako prezentovať v angličtine Parafrázovanie a definovanie Ako písať abstrakt Slovosled v akademickom diškurze	
Recommended literature: Seal B.: Academic Encounters, CUP, 2002 T. Armer :Cambridge English for Scientists, CUP 2011 M. McCarthy M., O'Dell F. - Academic Vocabulary in Use, CUP 2008	

Zemach, D.E, Rumisek, L.A: Academic Writing, Macmillan 2005 Olsen, A. : Active Vocabulary, Pearson, 2013 www.bbclearningenglish.com Cambridge Academic Content Dictionary, CUP, 2009					
Course language:					
Notes:					
Course assessment Total number of assessed students: 295					
A	B	C	D	E	FX
28.81	22.37	16.27	11.53	8.14	12.88
Provides: PaedDr. Gabriela Bednáriková					
Date of last modification: 06.09.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ ALP/06		Course name: Alternative Education			
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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 65					
A	B	C	D	E	FX
78.46	18.46	0.0	1.54	0.0	1.54
Provides: PaedDr. Renáta Orosová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ ANCHU/03		Course name: Analytical Chemistry			
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: 3.					
Course level: I.					
Prerequisites: ÚCHV/VCHU/14 or ÚCHV/VCHU/15 or ÚCHV/VCHU/10 or ÚCHV/VACH/10					
Conditions for course completion: 3x test of analytical calculations. Examination					
Learning outcomes: Survey of basic principles and tasks of analytical chemistry and applications of analytical methods in research and practice.					
Brief outline of the course: Subject and role of analytical chemistry. General principles and procedures - sampling, sample pre-treatment. Preparation of solutions. Evaluation of the results. Classification of analytical reactions. Qualitative analysis of cations and anions. Basic principles of organic analysis. Methods of quantitative analysis. General principles of gravimetry. Volumetric analysis. Instrumental methods of analytical chemistry (basic principles, instrumentation and applications) - electroanalytical, optical and separation methods.					
Recommended literature: Skoog D.A.: Principles of Instrumental Analysis. Saunders Col. Publishing, New York 1985. D.Harvey: Modern Analytical Chemistry. McGraw Hill, Boston, 2000.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 545					
A	B	C	D	E	FX
17.61	18.17	25.14	26.06	8.81	4.22
Provides: doc. RNDr. Taťána Gondová, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ BKP/14	Course name: Bachelor Project
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 19	
abs	n
94.74	5.26
Provides:	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BKP/14	Course name: Bachelor Project
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Submission of the bachelor project, the defense of the project and acceptance of its content by the supervisor.	
Learning outcomes:	
Brief outline of the course:	
Recommended literature: 1. Scientific papers related to the topic of the bachelor project. 2. Directive No. 1/2011 of the rector UPJS in Košice.	
Course language:	
Notes:	
Course assessment Total number of assessed students: 9	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ BPO/14		Course name: Bachelor 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: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Oral presentation of the thesis results. Answering questions of the thesis oponent or members of the state examination board.					
Recommended literature:					
Course language: slovak					
Notes:					
Course assessment Total number of assessed students: 40					
A	B	C	D	E	FX
87.5	7.5	5.0	0.0	0.0	0.0
Provides:					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ BPO/14		Course name: Bachelor 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: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 30					
A	B	C	D	E	FX
33.33	30.0	16.67	10.0	10.0	0.0
Provides:					
Date of last modification: 31.07.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ SMG/10		Course name: Basic statistics for geography			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Project and tests during the semester. Given at the basis of partial examination and final test.					
Learning outcomes: To understand basics of descriptive and inferential statistics used in natural sciences.					
Brief outline of the course: Data types. Frequencies. Measures of central tendency, variability and concentration. Quantiles. Basic theoretical probability distributions. Point and interval estimation. Basic hypothesis tests. Correlation and regression analysis.					
Recommended literature: Wonnacott, Wonnacott: Introductory Statistics, Wiley 1977 Rogerson P.: Statistical methods for geography, SAGE Publications, London, 2001					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 396					
A	B	C	D	E	FX
4.8	8.84	18.43	30.81	28.79	8.33
Provides: RNDr. Daniel Klein, PhD., Mgr. Andrej Gajdoš, RNDr. Veronika Kopčová					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ KAR/05		Course name: Basis of karstology and speleology			
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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 196					
A	B	C	D	E	FX
78.57	13.27	6.12	0.0	2.04	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ MINU/03		Course name: Basis of Mineralogy			
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: 4.					
Course level: I.					
Prerequisites: ÚCHV/VCHU/10 or ÚCHV/VCHU/14 or ÚCHV/VCHU/15 or ÚCHV/ZAC2/10 or ÚCHV/VACH/10 or ÚCHV/CHG/09 or ÚCHV/ZCF/03					
Conditions for course completion: Verification of theoretical knowledge and recognizing minerals. Semester project, practical test from recognizing of minerals, optional oral examination.					
Learning outcomes: To recognize the beauty of nature and to obtain basic knowledge from mineralogy. To familiarize students with properties of usual minerals and to recognize these minerals.					
Brief outline of the course: Basic terms and definitions, origin of minerals in nature. Basis of morphological and structural crystallography: characteristic properties of crystals, crystallographic laws, crystal structure, unit cells and their parameters, crystallographic systems with examples of minerals. Crystallochemistry: types of bonds and structures and their effect on the properties of minerals. Physical properties of minerals and their utilize in minerals classification. Basis of genetic and systematic mineralogy. Structure of silicates.					
Recommended literature: M. Košuth: Mineralógia. Elfa, s.r.o. Košice, 2001 V. Radzo: Mineralógia, Alfa Bratislava, 1987.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 40					
A	B	C	D	E	FX
67.5	25.0	7.5	0.0	0.0	0.0
Provides: doc. RNDr. Ivan Potočný, PhD.					
Date of last modification: 03.05.2015					

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ BCHU/03	Course name: Biochemistry
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: 5.	
Course level: I.	
Prerequisites: ÚCHV/VCHU/10 or ÚCHV/VCHU/15 or ÚCHV/VACH/10 or ÚCHV/VCHU/14	
Conditions for course completion: test + oral examination	
Learning outcomes: The aim of biochemistry teaching is to acquire knowledge in the field of living organisms on the basis of their molecular structure and metabolism.	
Brief outline of the course: 1. Protein Structure and Function, Exploring proteins 2. DNA and RNA and the Flow of Genetic Information, Exploring genes 3. Enzymes: Basic Concepts and Kinetics, Catalytic Strategies and Regulatory Strategies 4. Carbohydrates (Monosaccharides, Disaccharides, Polysaccharides – Functions and Properties) 5. Lipids and Cells Membranes, Membrane Channels and Pumps 6. Metabolis: Basic Concepts and Design, Signal-Transduction Pathways 7. Glycolysis and Gluconeogenesis, Glycogen Metabolism 8. The Citric Acid Cycle and Glyoxylate Cycle 9. Oxidative Phosphorylation, The Light Reactions of Photosynthesis 10. The Calvin Cycle and the Pentose Phosphate Pathway 11. Fatty Acids Metabolism, Urea Cycle 12. DNA Replication, Transcription (RNA Synthesis) 13. Protein Synthesis & Degradation, the Integration of Metabolism	
Recommended literature: Škárka: Biochémia. Alfa, 1992 Voet a Voetová: Biochemie. Victoria Publishing, Praha, 1994 Stryer, L.: Biochemistry, W.H. Freeman and Company, New York, 1988	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 931					
A	B	C	D	E	FX
16.86	18.47	21.05	21.59	19.12	2.9
Provides: doc. RNDr. Erik Sedlák, PhD., RNDr. Nataša Tomášková, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ PBCHU/15		Course name: Biochemistry Practical			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites: ÚCHV/BCHU/03					
Conditions for course completion: Protocols + 75 % continuous evaluation.					
Learning outcomes:					
Brief outline of the course: The most important biochemical laboratory methods. The qualitative tests for amino acids and proteins. Time-dependent course of enzyme-catalyzed reaction: determination of enzymatic activity, determination of the first order rate constant, calculations of math models (examples), effect of a substrate concentration on initial rate of reaction, determination of Km and Vmax for urease. Isolation and detection of nucleic acids.					
Recommended literature: http://kosice.upjs.sk/~kbch/					
Course language:					
Notes:					
Course assessment Total number of assessed students: 23					
A	B	C	D	E	FX
52.17	26.09	13.04	4.35	4.35	0.0
Provides: doc. RNDr. Mária Kožurková, CSc., RNDr. Nataša Tomášková, PhD., RNDr. Rastislav Varhač, PhD., RNDr. Danica Sabolová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ BAC1/04		Course name: Bioinorganic Chemistry I			
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: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: Test or seminar works examination					
Learning outcomes: The basic knowledges about biometal interactions with biomolecules, biomaterials, biominerals, biocatalysis, metals in biology and medicine, metal-based drugs, toxic metals for biosystems and metals in the environment.					
Brief outline of the course: Metalic and non-metalic elements and their roles in biological systems (biometals, bulk biological elements, essential trace elements). Biocoordination compounds, bioligands. Biocatalyzers. Oxygen carriers and oxygen transport proteins. Photochemical process. Catalysis and regulation processes. Calcium biominerals and biomineralization. Toxic metals. Application of knowledge of bioinorganic chemistry in pharmacy, chemotherapy (e.g. platinum complexes in cancer therapy) radiodiagnostics, mineral biotechnology, ecology and in other branches of life.					
Recommended literature: 1. Shriver D. F., Atkins P. W., Overton T. L., Rourke J.P., Weller M.T., Amstrong F.A.: Shiver & Atkins. Inorganic Chemistry. Oxford University Press, Oxford 2006. 2. Kaim W., Schwederski B.: Bioinorganic Chemistry: Inorganic Elements in the Chemistry of Life. Wiley, Chichester 1998. 3. Wilkins P. C., Wilkins R. G.: Inorganic Chemistry in Biology. OCP, Oxford 1997.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 156					
A	B	C	D	E	FX
42.31	30.13	17.95	2.56	7.05	0.0
Provides: doc. RNDr. Zuzana Vargová, Ph.D.					

Date of last modification: 03.05.2015
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BDD/05		Course name: Biology of Children and Adolescents			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 0 Per study period: 28 / 0 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Written test					
Learning outcomes: The aim of the subject is to gain the particular level of knowledge about human body and its development. It is necessary for the understanding of specific biological characteristics of children and adolescents linked to development.					
Brief outline of the course: Human ontogenesis. Postnatal development. Age specific features of skeletal and muscular, circulatory, respiratory, gastrointestinal and urinary systems. Reproductive system. Endocrine system. Nervous system. Age specifics of selected diseases and drug dependence arise. Human population and environment.					
Recommended literature: Drobný I., Drobná M.: Biológia dieťaťa pre špeciálnych pedagógov I. a II. Bratislava, PdF UK, 2000 Lipková V.: Somatický a fyziologický vývoj dieťaťa. Osveta Bratislava, 1980 Malá H., Klementa J.: Biológia detí a dorastu. Bratislava, SPN, 1989					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1159					
A	B	C	D	E	FX
34.17	23.12	17.0	16.48	8.8	0.43
Provides: doc. RNDr. Monika Kassayová, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ KAG/15	Course name: Cartography and Geoinformatics
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course: 2.	
Course level: I.	
Prerequisites:	
Conditions for course completion: During the semester student must hand in the outputs of exercise. Their number will be announced at the beginning of the semester. The final assessment of the exercises is based on the method fulfilled / not fulfilled. The final assessment of the course is based on final exam. The student can undertake the final exam only after successful completion of the exercises. The final exam consists of two parts: - A written part – to get the A mark must be obtained at least 92 % of the total number of points, to get B must be obtained at least 84 % of the total number of points , C at least 75 % , D at least 68 % , E at least 60 % of total number of points. - Oral – a student takes out two issues of the two question groups. (1 question is from the theoretical, thematic a selected issue of mathematical cartography, one question is from the geoinformatics). The final assessment is calculated as a weighted average of the written part (1/3) and oral (2/3) , while student must obtain at least mark E from both parts of the final exam.	
Learning outcomes: The main learning outcomes include theoretical and practical skills in cartography and geoinformatics. Students understand cartographic and GIS terminology, students can apply cartographic approaches and methods using GIS, projections and define the content and composition of maps in GIS.	
Brief outline of the course: Cartography - the branch of science, position in the system of sciences, the history of cartography, topographic mapping in Slovakia; Cartographic projects, cartographic interpretation; Description maps, geographical names, cartographic generalization, State map series; Cartometry and morphometry; Mathematical cartography (reference area map projection and distortion). Geoinformatics – the branch of science, elements of GIS, digital representation of landscape, raster and vector data, data collection and processing data for GIS, geospatial database, visualization and cartographic representation using GIS, applications of GIS.	
Recommended literature: ROBINSON, A. H. et al. 1995:ElementsofCartography. Wiley&sons. 674 s. PRAVDA, J., KUSEDOVÁ, D. 2007: Aplikovaná kartografia. Geo-grafika, Bratislava, 224 s.	

HOFIERKA, J. 2003: Geografické informační systémy a diaľkový prieskum Zeme. Vysokoškolské skriptá. Prešovská univerzita, Prešov. 106 s. Dostupné na: http://web.science.upjs.sk/hofierka/vyuka/Hofierka_GIS&DPZ.zip
 ArcGIS10Web Help. ArcGISResource Center. Environmental Research Institute. Dostupné na: <http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html> LONGLEY, P. A., GOODCHILD, M. F., MAGUIRE, D. J., RHIND, D. W. 2001: Geographic Information Systems and Science. John Wiley & Sons.

Course language:

Notes:

Course assessment

Total number of assessed students: 174

A	B	C	D	E	FX
10.92	19.54	22.41	17.24	25.29	4.6

Provides: RNDr. Ján Kaňuk, PhD., prof. Ing. Vladimír Sedlák, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KOP/OPaPDV/14	Course name: Civil Law and Intellectual Property Rights
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: 3., 5.	
Course level: I., N	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 21	
abs	n
85.71	14.29
Provides: JUDr. Renáta Bačárová, PhD., LL.M.	
Date of last modification: 06.06.2016	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJKKA/07	Course name: Communicative Competence in English
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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II., N	
Prerequisites:	
Conditions for course completion: Active participation in class and completed homework assignments. Students are allowed to miss two classes at the most. Continuous assessment: 2 credit tests (presumably in weeks 6 and 13) and academic presentation in English. Test 1 = 40 points, test 2 = 40 points, presentation = 20 points. In order to pass the course, it is necessary to score at least 65 points as a sum of test and presentation scores. Final grade will be calculated as follows: A 93-100 %, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64 % and less	
Learning outcomes: Uplatnenie a aktívne používanie svojich teoretických vedomostí v praktických komunikačných situáciách. Zdokonalenie jazykových vedomostí a zručností študenta, rečovej, pragmatickej a vecnej kompetencie, predovšetkým zlepšujú komunikáciu, schopnosť prijímať a formulovať výpovede, efektívne vyjadrovať svoje myšlienky ako aj orientovať sa v obsahovom pláne výpovede. Precvičovanie rečových intencií kontaktných (napr. pozdravy, oslovenia, pozvanie, oslovenie), informatívnych (napr. získavanie a podávanie informácií, vyjadrenie priestorových a časových vzťahov), regulačných (napr. prosba, poďakovanie, zákaz, pochvala, súhlas, nesúhlas) a hodnotiacich (napr. vyjadrenie vlastného názoru, stanoviska, želania, emócií). Výsledkom budovania praktickej jazykovej kompetencie majú byť vedomosti a zručnosti zodpovedajúce požiadavkám a kritériám dokumentu Spoločný európsky referenčný rámec pre vyučovanie jazykov - úroveň B2.	
Brief outline of the course: Rodina, jej formy a problémy Vyjadrovanie pocitov a dojmov Dom, bývanie a budúcnosť Formy a dialekty v anglickom jazyku Život v meste a na vidieku Kolokácie a idiomy, zaužívané slovné spojenia Prázdniny a sviatky vo svete	

Životné prostredie a ekológia Výnimky zo slovosledu Frázové slovesá a ich použitie Charakteristiky neformálneho diškurzu					
Recommended literature: McCarthy M., O'Dell F.: English Vocabulary in Use, 1994 Misztal M.: Thematic Vocabulary, 1998 Fictumova J., Ceccarelli J., Long T.: Angličtina, konverzace pro pokročilé, Barrister and Principal, 2008 Peters S., Gráf T.: Time to practise, Polyglot, 2007 www.bbclearningenglish.com Jones L.: Communicative Grammar Practice, CUP, 1985 Alexander L.G.: Longman English Grammar, Longman, 1988					
Course language:					
Notes:					
Course assessment Total number of assessed students: 191					
A	B	C	D	E	FX
38.22	21.99	18.85	9.42	7.33	4.19
Provides: Mgr. Zuzana Naďová					
Date of last modification: 01.09.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/ NJKK/07		Course name: Communicative Competence in German Language			
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:					
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: 44					
A	B	C	D	E	FX
59.09	13.64	6.82	4.55	13.64	2.27
Provides: Mgr. Eva Černáková, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJGA/07	Course name: Communicative Grammar in English
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 credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II., N	
Prerequisites:	
Conditions for course completion: kontrolná písomná práca, záverečná písomná práca stupnica hodnotenia: A 93-100, B 86-92, C 79-85, D 65-71, 64 a menej - FX aktivita na hodinách, povolené 2 absencie predmet je ukončený hodnotením	
Learning outcomes: Identifikovanie a odstránenie najfrekvencovanejších gramatických chýb v ústnom prejave, ako aj v písomnom styku. Rozvoj jazykových kompetencií študenta so zameraním na funkcie gramatiky anglického jazyka v každodennej interakcii, v komunikačnom akte na stredne pokročilej úrovni ovládania jazyka (B2 podľa Spoločného európskeho referenčného rámca pre jazyky).	
Brief outline of the course: Zvieratá a rastliny na zemi Zločin a trest Cestovanie po mori a vzduchom Jedlá a reštaurácie, národná kuchyňa Vzdelanie na vysokých školách História a viera Vybrané problémy anglickej výslovnosti, gramatiky (nepriama reč, slovotvorba, predložkové väzby, anglická syntax, kondicionály v angličtine a slovnej zásoby príslušného zamerania Vybrané funkcie praktického odborného jazyka potrebné na prácu s odborným textom	
Recommended literature: Misztal M.: Thematic Vocabulary, 1994 McCarthy, O'Dell: English Vocabulary in Use, 1994 Alexander L.G.: Longman English Grammar, Longman, 1988 Jones I. - Communicative Grammar Practice, CUP, 1992 Vince M.: Macmillan Grammar in Context, Macmillan, 2008 www.bbclearningenglish.com Gráf T., Peters S.: Time to practise, Polyglot, 2007	

Course language:					
Notes:					
Course assessment					
Total number of assessed students: 378					
A	B	C	D	E	FX
39.42	18.25	17.2	8.73	5.82	10.58
Provides: PaedDr. Gabriela Bednáriková					
Date of last modification: 06.09.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/ NJKG/07		Course name: Communicative Grammar in German Language			
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:					
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: 46					
A	B	C	D	E	FX
54.35	13.04	8.7	4.35	10.87	8.7
Provides: PaedDr. Ingrid Puchalová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ KRS/08	Course name: Complex geographic characteristics of selected world regions
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: 3	
Recommended semester/trimester of the course: 6.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion: At the beginning of semester, students will be told the topics to be drawn up as written report and presented in a slideshow. This part is 50 % of total grading. The results of tests written during the semester constitute another 50 % of total grading. To obtain A grade, weighted average of the both parts of examination must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain less than 50 % from any of both parts of examination.	
Learning outcomes: Understanding of causal relations between individual geographic phenomena in spatial and temporal context of individual regions; extended knowledge about selected regions.	
Brief outline of the course: Geographic location, geologic history and structure, orography and shapes of coast, climate, hydrology, soils and biogeography, protection of nature, current landscape and its transformation, historical and political development, population and sites, economy and integration groupings in selected regions of the world.	
Recommended literature: DE BLIJ, H. J. et al: 2013: The World Today - Concepts and Regions in Geography, 6th edition. New York (Wiley), 528 p. HOBBS, J. J. 2010: Fundaments of World Regional Geography, 2nd edition. Belmont (Brooks/ Cole), 438 p. WEIGHTMAN, B. 2010: Dragons and Tigers – A Geography of South, East and Southeast Asia, 3rd edition. Hoboken (Wiley), 523 p. BAAR, V. 2002: Národy na prahu 21. století. Emancipace nebo nacionalismus? Ostrava (Ostravská univerzita), 416 s. BRADSHAW, W. et al. 2012: Contemporary World Regional Geography, 4th edition. New York (McGrawHill), 620 p.	
Course language: Slovak and English	
Notes:	

Course assessment					
Total number of assessed students: 402					
A	B	C	D	E	FX
29.85	35.57	21.14	8.46	4.23	0.75
Provides: Mgr. Ladislav Novotný, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ KCHU/03		Course name: Coordination 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 credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚCHV/ACHU/03					
Conditions for course completion: Final written exam					
Learning outcomes: The student acquires basic knowledge on the coordination compounds, preparation, isomerism and properties of coordination compounds as well as about the chemical bonding in coordination compounds.					
Brief outline of the course: Definition and nomenclature of coordination compounds. Central atom and ligands, coordination numbers. Isomerism, preparation and stability of coordination compounds, chemical bonding in coordination compounds.					
Recommended literature: J. Ribas: Coordination Chemistry, Wiley-VCH, Weinheim, 2008. J. C. Huheey, E. A. Keiter, R. L. Keiter: Inorganic Chemistry, Haper Collins, New York, 1993. G. A. Lawrance: Introduction to Coordination Chemistry, Wiley, 2010.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 61					
A	B	C	D	E	FX
55.74	22.95	14.75	3.28	3.28	0.0
Provides: prof. RNDr. Juraj Černák, CSc., RNDr. Juraj Kuchár, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PUDB/15		Course name: Drug Addiction Prevention in University Students			
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., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 11					
A	B	C	D	E	FX
72.73	27.27	0.0	0.0	0.0	0.0
Provides: Mgr. Marianna Berinšterová, PhD., Prof. PhDr. Oľga Orosová, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚINF/EDS/15	Course name: Educational software
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 0 / 2 Per study period: 0 / 28 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: 1 Preparation of interim assignments: a) Worksheet for student (with custom graphics) b) Multimedia educational presentation (with pictures, animations and sounds) c) Interactive educational quiz (with several types of quiz items) d) Methodological guidance on the use of interactive applications in teaching selected topic of chosen school subject. 2 Creation and presentation of final project on the use of educational software in education.	
Learning outcomes: 1. To acquire an overview of the educational software types and its exploitation in education. 2. To gain or enhance basic skills in working with: a) presentation software, programs for creation and editing images, animations, diagrams, sounds, concept maps, b) programs for creation of quizzes, questionnaires, voting, c) simulation and modeling software, d) selected subject-oriented educational programs, 3. To create and present a final project on the use of educational software in education.	
Brief outline of the course: Educational software types. Onlilne educational sources and tools. Multimedia processing. Tools for creation of teaching aids.	
Recommended literature: 1. Digitálna gramotnosť učiteľa : učebný materiál- modul 1 / Rastislav Adámek ... [et al.]. - Košice : Ústav informácií a prognóz školstva, 2009. - 80 s. - ISBN 9788080861193(brož.). 2. Moderná didaktická technika v práci učiteľa : učebný materiál modul 2 / Rastislav Adámek ... [et al.] ; recenzenti Viliam Fedák, Anton Lavrin. - Košice : Elfa, 2010. - 200 s. - ISBN 9788080861353 (brož.). 3. Web, Multimédia / Martin Homola ... [et al.]. - Bratislava : Štátny pedagogický ústav, 2010. - 68 s. - Č. projektu: ŠPVV ĎVUi 26120130001. - ISBN 9788081180514 (brož.).	
Course language:	

Notes:

Content of lessons will be flexibly adapted to the field of study of learners. Language learners will be able to work more with pictures and sounds, physicists with simulation programs, mathematicians with mathematical software, etc.

Course assessment

Total number of assessed students: 7

A	B	C	D	E	FX
28.57	28.57	28.57	0.0	14.29	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/AGS/08	Course name: English geographical 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 credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion: test	
Learning outcomes: The aim is to get students to work with the current language of geographers. The focus will primarily be on vocabulary of common geographical issues as geography of Europe, geography of the Slovak Republic, travel and tourism, project related English and some business English. Selected issues concerning the oral and written form of communication will be practised.	
Brief outline of the course: The subject aims to cover the most relevant issues of Human geography of Europe. Students actively participate on voluntary chosen topics: political division of Europe, population and settlements, main trends in economy of Europe, geographical description of European subregions or particular model national state.	
Recommended literature: Cihová, J. a kol., 2005: English for Students of Public Administration, Regional Development, European Integration. Bratislava: Geografika. ISBN 80-969338-2-5. Clark, A. N., 1998: Dictionary of Geography. Second edition. Penguin Books. ISBN 0-14-051388-4 Daniels, P., et al. 2005. An Introduction to Human Geography. Issues for the 21st Century. Pearson: Prentice Hall. ISBN 0-13-121766-6 Jordan, R.R., 1980: Academic Writing Course. London: Collins ELT. ISBN 0-00-370004-6 Swan, M., 2006: Practical English Usage. Oxford: OUP. ISBN 9780194420983 materials provided by the teacher	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 26					
A	B	C	D	E	FX
65.38	3.85	3.85	15.38	11.54	0.0
Provides: RNDr. Stela Csachová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJ4/07	Course name: English Language of Natural Science
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.	
Prerequisites:	
Conditions for course completion: Active participation in class and completed homework assignments. Students are allowed to miss 2 classes at the most. Continuous assessment: 2 credit tests (presumably in weeks 6 and 13) and academic presentation in English. Test 1 = 40 points, test 2 = 40 points, presentation = 20 points. In order to be admitted to the final exam, a student has to score at least 65 points as a sum of both credit tests and academic presentation. Exam test = 100 points. The exam test results represent 50% of the final grade for the course, continuous assessment results represent the other 50% of the final grade. The final grade for the course will be calculated as follows: A 93-100, B 86-92, C 79-85, D 72-78, E 65-71, FX 64 and less.	
Learning outcomes: Rozvoj jazykových kompetencií študentov príslušného študijného odboru, upevňovanie a rozvíjanie všetkých jazykových zručností (hovorenie, písanie, čítanie, počúvanie) predovšetkým v odbornej/profesnej angličtine, na stredne pokročilej úrovni ovládania jazyka (B2). Dôraz sa kladie na aktívne správne používanie odbornej/profesnej angličtiny.	
Brief outline of the course: ANGLICKÝ JAZYK PRE GEOGRAFOV: Veda a výskum. Odbor geografia. Planéta Zem. Naša slnečná sústava. Litosféra, hydrosféra, atmosféra, biosféra. Zem - dynamická planéta. Tektonické platne. Sopečná činnosť. Zemetrasenia. Svetové oceány. Morské prúdy. Tsunami. Veľký koralový útes. Atmosféra - zloženie atmosféry. Kontinenty. Európa - krajiny, národnosti. ANGLICKÝ JAZYK PRE EKOLÓGOV: Veda a výskum. Odbor ekológia.	

Životné prostredie. Znečistenie a dôsledky.
Sopečná činnosť, zemetrasenia.
Great Pacific Garbage Patch.
Globálne otepľovanie a dôsledky. Ľadovce.
Počasie a klíma. Búrky, hurikány, tsunami.
Život na Zemi. Ohrozené rastlinné a živočíšne druhy.
ANGLICKÝ JAZYK PRE BIOLÓGOV:
veda a výskum, odbor biológia
morfológia rastlín, koreň
stonka, list
rozmnožovanie rastlín, kvet
biológia človeka - telesné sústavy
slovná zásoba z oblasti botanickej a zoologickej nomenklatury
ANGLICKÝ JAZYK PRE MATEMATIKOV:
Veda a výskum, odbor matematika
čísla a tvary v matematike
Elementárna algebra
Elementárna geometria
Výpočty v matematike
Pytagoras, Pytagorova veta
Grafy a diagramy
Štatistika
ANGLICKÝ JAZYK PRE FYZIKOV
Veda a výskum, odbor fyzika
Atómy a molekuly
Hmota a jej premeny
Elektrina, jej využitie
Zvuka, jeho prenos
Svetlo
Solárny systém
Matematické operácie
ANGLICKÝ JAZYK PRE CHEMIKOV:
Veda a výskum, odbor chémia:
História, alchímia
Nomenklatura
Laboratórium a jeho vybavenie
Periodická tabuľka
Hmota a jej premeny
Organická chémia
Anorganická chémia
ANGLICKÝ JAZYK PRE INFORMATIKOV:
Veda a výskum, informatika
Život s počítačom
Typický PC
Zdravie a bezpečnosť, ergonómika
Programovanie
Emailovanie
Cybercrime
Trendy budúcnosti

Recommended literature:

študijné materiály dodané vyučujúcim

Velebná, V. English for Chemists.

Redman, S.: English Vocabulary in Use, Pre-intermediate, Intermediate. Cambridge University Press. 2003.

Powel, M.: Dynamic Presentations. CUP, 2010

Armer, T.: Cambridge English for Scientists. CUP, 2011

Wharton J.: Academic Encounters. The Natural World, CUP: 2009.

Murphy, R.: English Grammar in Use. Cambridge University Press. 1994.

Redman, s.: English Vocabulary in Use, Pre-intermediate, Intermediate. Cambridge University Press. 2003.

P. Fitzgerald : English for ICT studies, Garnet Publishing, 2011

Course language:**Notes:****Course assessment**

Total number of assessed students: 2010

A	B	C	D	E	FX
31.44	25.82	18.71	11.59	9.65	2.79

Provides: PaedDr. Gabriela Bednáriková, Mgr. Marianna Škultétyová, Mgr. Zuzana Naďová, PhDr. Helena Petruňová, CSc.

Date of last modification: 01.09.2016

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ PCH1/00		Course name: Food 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 credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: Based on excursions to food plants and analytical laboratories specialized on food analysis together with own prepared projects during seminars the students should gain general overview about food chemistry, basic legal documents, additives.					
Brief outline of the course: The main categories of substances in the most important group of food. Contamination of food. Physical and chemical properties of food and chemical reactions relative to obtaining, storing and preparing of food. Analytical methods for determination of quality of the food.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 256					
A	B	C	D	E	FX
60.55	33.98	5.08	0.0	0.0	0.39
Provides: RNDr. Ján Elečko, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ BACHZ/06		Course name: Fundamentals of 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 credits: 5					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion: written test Oral examination					
Learning outcomes: Principles and theoretical foundations the application of analytical methods in bioanalysis.					
Brief outline of the course: Introduction to Bioanalytical Chemistry. Biological samples classification. Factors that affect analytes in biological samples. Collection, transport and storage of samples, the main principles of sampling, the suppressing of undesirable phenomena. Selected methods of pretreatment of biological samples. Analyzers, equipment and organization of work in a clinical laboratory. Control and management of quality in clinical laboratory. Quality manual, calibration, control, and reference materials. Validation and Good Laboratory Practice. Buffers in bioanalysis. Enzymes in bioanalysis, introduction, distribution, Mechanism of enzyme catalysis. The kinetics of enzymatic reactions with one substrate, the Michaelis constant, constant specificity, lag phase, kinetics of reactions with two substrates. Moderators of enzyme activity. Selected methods for 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.Lee, D.C., Webb, M. Pharmaceutical Analysis, Blackwell, 2003					
Course language:					
Notes:					
Course assessment Total number of assessed students: 52					
A	B	C	D	E	FX
34.62	26.92	30.77	5.77	0.0	1.92
Provides: doc. RNDr. Katarína Reiffová, PhD.					

Date of last modification: 03.05.2015
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEP2/13		Course name: Fundamentals of Geology for Geographers			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Courses have following objectives: firstly, to introduce the current theories of processes which occur in the Earth (global tectonics, species of magmatism), secondly, to describe the rock-forming minerals, taxology of intrusive rocks, taxology of sedimentary rocks and rocks which had overcome metamorphosis, basics of the regional geology of Slovakia, basics of the historical geology and paleontology.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 856					
A	B	C	D	E	FX
7.71	14.84	31.54	27.69	12.73	5.49
Provides: doc. RNDr. Zdenko Hochmuth, CSc., Ing. Katarína Bónová, PhD., Mgr. Veronika Straková					
Date of last modification: 08.09.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ PACU/03		Course name: General Course of Analytical Chemistry - Laboratory			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚCHV/ANCHU/03					
Conditions for course completion: Assessment					
Learning outcomes: Application of theoretical knowledge to analytical laboratory practise					
Brief outline of the course: Practical in qualitative and quantitative analysis. Qualitative analysis, separation by selective precipitation. Quantitative methods. Gravimetry, general principles of method. Volumetric methods. Preparation of accurate solutions. Indication of equivalency point. Titration curves, calculations in volumetric analysis. Acidimetry, alkalimetry. Manganometry. Iodometry. Complexometry. Selected Instrumental analytical methods.					
Recommended literature: D.Harvey: Modern Analytical Chemistry. McGraw Hill, Boston, 2000. D.A.Skoog: Principles of Instrumental Analysis. Saunders Col. Publishing, New York 1985. E.Prichard: Quality in the Analytical Chemistry Laboratory, Wiley, 1995					
Course language:					
Notes:					
Course assessment Total number of assessed students: 204					
A	B	C	D	E	FX
57.35	28.43	10.78	0.98	2.45	0.0
Provides: doc. Ing. Viera Vojteková, PhD., RNDr. Rastislav Serbin, PhD., RNDr. Lívia Kocúrová, PhD., RNDr. Jana Šandrejová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ VCHU/15		Course name: General Chemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 4 / 2 Per study period: 56 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites: ÚCHV/CHV1/99					
Conditions for course completion: Written test in the middle and the end of the semester. Oral examination.					
Learning outcomes: To provide students with knowledge of atoms and molecules their electronic structure, theories of chemical bonds, physical properties of elements and compounds.					
Brief outline of the course: Main terms used in chemistry. Atoms – models of atoms, electron configuration, chemical periodicity and its effect on the properties of elements, radioactivity. Chemical bonds and intermolecular interactions. Chemical structure and physical properties of matter. State of matter. Solutions. Chemical equilibrium. Basis of chemical thermodynamics and chemical kinetics. Classification of chemical reactions. Electrochemistry.					
Recommended literature: 1. Atkins P., Jones L.: Chemical Principles, 2nd ed., Freeman, New York 2002. 2. Russel J.B.: General Chemistry, 2nd ed., McGraw Hill, London 1992.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 27					
A	B	C	D	E	FX
22.22	29.63	33.33	11.11	3.7	0.0
Provides: doc. RNDr. Vladimír Zeleňák, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEE2/07		Course name: Geoecology			
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: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Focus will be put on the development of this discipline, different dimensions of the physical – geographic complexes, regularities of the space differentiation of the physical – geographic sphere, evolution, and dynamics of the physical – geographic complexes. Synthesis of the principles of landscape and landscape-ecological planning.					
Recommended literature: BEDRNA, Z., a kol. 1992: Analýza a čiastkové syntézy zložiek krajinej štruktúry. Bratislava. Učebné texty, 95 s.. MIČIAN, Ľ., ZATKALÍK, F. 1984: Náuka o krajine a starostlivosť o životné prostredie. UK Bratislava skriptá,137s. MIČIAN, Ľ. 1989: Pokus o novú definíciu krajinej ekológie. Ekológia (ČSFR), 3,1,Veda, Bratislava, s. 7-12. MIČIAN, Ľ. 2008: Všeobecná geoekológia. Bratislava: Geo-grafika, 88 s. – Skriptá.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 603					
A	B	C	D	E	FX
4.98	12.94	20.4	24.38	34.99	2.32
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Dušan Barabas, CSc., Mgr. Veronika Straková					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GIS/15		Course name: Geographic Information Systems			
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: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 254					
A	B	C	D	E	FX
32.28	22.44	27.95	10.63	6.69	0.0
Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Michal Gallay, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEOM/15		Course name: Geography			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 1					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 27					
A	B	C	D	E	FX
11.11	29.63	25.93	14.81	18.52	0.0
Provides:					
Date of last modification: 26.02.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ MG/14	Course name: Geography of mining
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: The evaluation is based on a combination of continuous and final control. The continuous control is carried out during the teaching part by written test with a share of 30 % of the final evaluation. The final control is written and constitutes 70 % of the final evaluation. The resulting evaluation is a weighted average of the continuous (30 %) and final (70 %) controls. Credits will be awarded only to student who achieves the evaluation at the minimum level of the mark E in every part of the evaluation.	
Learning outcomes: To acquaint students with basic facts and knowledge of the history of mining science from the view of geographic aspect to obtain information overview of the history of world and Slovak mining for geographic purposes.	
Brief outline of the course: Historical foundations of the global mining industry, mining oldest written records of mining heyday in the Middle Ages, the first mining maps, Slovak ore mining in the Austro-Hungarian Empire, First World Mining Academy in Banská Štiavnica mining and migration of the population, the world "gold rush", salt roads Europe, coal mining and electrification of industry, environmental consequences of mining devastation, mining open-air museums in Slovakia and Europe and their importance for the promotion of tourism.	
Recommended literature: Odporúčaná literatúra: Ježek, B. a Hummel, J., 2006: Georgius Agricola, Dvanásť kníh o baníctve a hutníctve. Preklad z českého originálu: Petr, K. a Petrová, M., Ostrava: Montanex a.s., 2006, 546s., ISBN 80-7225-218-6. Puzder, J., 2000: Samuel Mikovíni, život a dielo. Košice: FBERG TU Košice, 115s. Vozár, J., 2000: Zlatá kniha baníctva. Košice: Tibor Turčan/Banská agentúra, 2000, 263s., ISBN 80-968421-4-5. Vozár, J., 2002: Kódex mestského a banského práva Banskej Štiavnice. Košice: Tibor Turčan/Banská agentúra, 2002, 71s., ISBN 80-968621-2-X.	

Zícha, Z., 2005: Back to the past. The history of technology and manpower in the mining is a legacy which cannot be forgotten. Ústí nad Labem: CDL Design s.r.o., 2005, 98p., ISBN 80-902278-9-9.

Course language:

Slovak

Notes:

without notices

Course assessment

Total number of assessed students: 37

A	B	C	D	E	FX
54.05	32.43	2.7	8.11	2.7	0.0

Provides: prof. Ing. Vladimír Sedlák, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/OBY2/03	Course name: Geography of population and settlements
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: 3.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Evaluation of student performance is carried out by combining ongoing review during the term of examination for the period of the semester. Continuous control consists of min. 80 % of the active participation of students in teaching and successfully solving assignments. If a student does not reach required active participation of teaching and successfully does not solve the given problem can not log on to the test.	
Learning outcomes: The student will acquire theoretical and methodological basis of Geography of Population and Settlements. Students will acquire a basic spatial differentiation of population and settlements in the world according to basic characteristics.	
Brief outline of the course: Population geography as a science discipline; Trends and forecasts of the world population; Distribution of population; Natural and mechanical movement of population (natality, mortality, balance natural movement of the population, model of demographic cycle, population migration); Population structure on the basis of biological, cultural and economic characteristics; Geography settlements as a scientific discipline; Settlement development and settlement systems; Geographical location of settlements; The structure of settlements by size, dynamics and morphology; Urban geography (definition of city, creation of city and functions cities); The hierarchy of settlements and Gravity; Urbanization (basic concepts, indicators, aspects and methods of research); Rural settlement systems (compact and scattered rural settlements and their geographical interpretation). Seminars Seminars during the semester are oriented to problem solving in order to practice, resp. demonstrate phenomena studied in different regional units of Slovakia, Europe or Worldwide.	
Recommended literature: BAŠOVSKÝ, O., MLÁDEK, J. 1989: Geografia obyvateľstva a sídel. Prírodovedecká fakulta UK, Bratislava, 221. CHALUPA, P., TARABOVÁ, Z. 1990: Geografie obyvateľstva, demografie, geografie sídel. MU, Brno.	

MATLOVIČ, R. 2001: Geografia relígií. Fakulta humanitných a prírodných vied Prešovskej univerzity v Prešove. Prešov, 375.

MLÁDEK, J. 1992: Základy geografie obyvateľstva. SPN Bratislava, 230.

MLÁDEK, J. a kol. 2006: Atlas obyvateľstva Slovenska. UK Bratislava, 168.

MLÁDEK, J., KUSEDOVÁ, D., MARENČÁKOVÁ, J., PODOLÁK, P., VAŇO, B. 2006: Demogeografická analýza Slovenska. UK Bratislava, 222.

PAVLÍK, Z., RYCHTAŘÍKOVÁ, J., ŠUBRTOVÁ, A. 1986: Základy demografie. Academia Praha.

VOTRUBEC, C. 1980: Lidská sídla, jejich typy a rozmístnění ve světě. Academia Praha.

SHORT, J. R. 1994: Lidská sídla. Velká geografická encyklopedie světa. Nakladatelský dům OP Praha

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 591

A	B	C	D	E	FX
9.48	14.21	22.67	23.52	26.57	3.55

Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GVS/15		Course name: Geography of Public Administration			
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: 3					
Recommended semester/trimester of the course: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: active participation, works during semester, final test. The student is awarded a grade provided they attend the classes regularly, submit and present the seminar work and write a final test with a value 50 % at least - grade E.					
Learning outcomes:					
Brief outline of the course: public administration, systems and models of public administration, history of public administration on the territory of Slovakia, division of public administration - state government, self-government - local and regional, local economic development, financial aspects of local administrative units, local government reform, intermunicipal reform, the city of Košice, territorial-administrative division, system of public administration in model states.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 171					
A	B	C	D	E	FX
23.98	33.33	18.13	15.2	8.77	0.58
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Stela Csachová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEX1/07		Course name: Geological excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 3d Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Visiting of different localities in the Western Carpathian tectonic units - Flysh belt, Klippen belt, Central Western Carpathians. Visiting of several localities of mining in Slovakia and getting to know the process of manufacturing of the rocks.					
Recommended literature: Regionálne geologické mapy Slovenska (1:50 000) + Vysvetlivky. ŽEC, B. et al., 2005: Exkurzný sprievodca ku kongresu Slovenskej geologickej spoločnosti Zemplínska šírava - Medvedia hora. CompuGraph, Košice, 138s. BIELY, A. et al., 1996: Geologická mapa Slovenska, 1 : 500 000. MŽP SR, ŠGÚDŠ, Bratislava. MIŠÍK, M., 1976: Geologické exkurzie po Slovensku. SPN Bratislava, 276 s. NĚMEC, F., 1987: Kľúč na určovanie nerastov a hornín. SPN Bratislava, 240 s. PELLANT, CH., PELLANTOVÁ, H., 1994: Horniny a minerály. Osveta, Martin, 256 s.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 257					
A	B	C	D	E	FX
79.77	13.62	3.5	0.0	0.0	3.11
Provides: doc. RNDr. Zdenko Hochmuth, CSc., Ing. Katarína Bónová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEM2/05		Course name: Geomorphology			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1025					
A	B	C	D	E	FX
8.39	20.98	20.0	16.2	22.83	11.61
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ NGS/06	Course name: German geographical 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 credits: 2	
Recommended semester/trimester of the course: 3.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion: On the basis of part-time works, 5 in total (á 20 points), the student will receive the end evaluation of the subject. For each work he should acquire minimal 11 points, so 55 points in total.	
Learning outcomes: After the subject attendance the student should be able to communicate with professional german terminology in writing and oral presentation.	
Brief outline of the course: The academic geographical terminology on particular topics of physical and human geography will be concerned. The world professionals of geography in the past and present. The system of university studies in Germany, German geographical periodicals, monographs. Geography of Germany.	
Recommended literature: BAUER, J., ENGLERT, W., MEIER, U., MORGENEYER, F., WALDECK, W., 2002: Physische Geographie kompakt. Spektrum Akademischer Verlag Heidelberg. 192 s. HOLLERBACH, E., NESS, N., 2002: Rhein- von Mainz bis Koeln. Rahmel - Verlag GmbH, Pulheim. 96 s. KOLEKTIV, 2004: Deutschland. Verlag Karl Baedeker Ostfildern. 1182 s. KUBALLA, S., 2001: Unbekanntes Deutschland. ADAC Verlag GmbH Munchen. 432 s. STRAHLER, H.A., STRAHLER, N.A., 1999: Physische Geographie. Verlag Eugen Ulmer Stuttgart. 294 s. ZEPP, H., MÜLLER, M.J., 1999: Landschaftsökologie Erfassungsstandards. Flensburg. 312 s.	
Course language: slovak, german	
Notes:	

Course assessment					
Total number of assessed students: 14					
A	B	C	D	E	FX
64.29	21.43	0.0	0.0	7.14	7.14
Provides: RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ GNG/15	Course name: Graphic tools in geography
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: 3	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: During the semester, students will need to hand in the outputs of the practicals. The resulting assessment is based on the final practical skills verification and delivery of the outputs of practicals. From the practical skills verification, students must obtain at least 90 points to get the A mark, at least 80 points to get B, at least 70 points to get C, at least 60 points to get D, at least 50 points to get E. The credits shall not be granted to a student who does not hand in one or more outputs of the practicals or he/she will get less than 50 points out of 100.	
Learning outcomes: The main learning outcomes include practical skills mainly in software COREL Graphics Suite focusing on proces vector and raster data to produce and edite map layouts, pictures using in geographical research and teaching geography.	
Brief outline of the course: Introduction to the exercises, criteria of assessment, recommended literature, explanation of the main principle of vector and raster graphics, graphic formats (JPG, TIF, BMP, PNG), adjustment of the image size. Raster graphics: joining of maps into a single unit. Raster graphics: drawing, text editing. Image Adjustment for publication, fill in missing picture elements, working with a mask, retouch. Vector graphics: manual vectorization of raster background (selected municipalities map of the district), curves and areas, tools Bezier tool, functions, Weld, Trim. Vector graphics: cartogram creation of cartodiagrams and graphical scale for the selected district, tools Basic shapes, Bezier tool, Align. Vector graphics: vector formats, edit existing vector background, creating cartograms. Vector graphics: manual vectorization of raster surface (topographic map with contour lines), zhladzovanie curves show qualitative phenomena.	
Recommended literature: KADAVÝ, D., PÍRKOVÁ, K. 2008: CorelDRAW X4: Podrobná uživatelská příručka. Praha (Computer Press). CORELDRAWTIPS 2013: Corel Draw Tips. http://coreldrawtips.com/site/coreldraw-tutorials COREL 2013: CorelDRAW Graphics Suite Tutorials: http://www.corel.com/corel/pages/index.jsp?pgid=800382&storeKey=ca&languageCode=en	
Course language:	

Notes:					
Course assessment					
Total number of assessed students: 126					
A	B	C	D	E	FX
81.75	12.7	3.17	2.38	0.0	0.0
Provides: Mgr. Michal Gallay, PhD., RNDr. Ján Kaňuk, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

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: 6.					
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: 731					
A	B	C	D	E	FX
60.6	13.82	12.72	8.76	3.42	0.68
Provides: doc. PhDr. Pavol Tholt, PhD., mim. prof., Doc. PhDr. Peter Nezník, CSc., PhDr. Katarína Mayerová, PhD., Mgr. Róbert Stojka, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HUGN/15		Course name: Human geography (Non-production Systems)			
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: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature: BOROVSÝ, J. a kol., 2008: Cestovný ruch, trendy a perspektívy. Iura Edition, 280 s. HALÁS, M., 2000: Zahraničný obchod SR s ČR. Geographical Studies 7, Constantine the Philosopher University Nitra, s. 98-107. HALL, C.M. - PAGE, S.J. 2002: The geography of tourism and recreation, 2. edition, London and New York, 399 p. HAVRLANT, J., 2007: Geografie cestovního ruchu I. Základy geografie cestovního ruchu, Ostravská univerzita, 41 s. MARIOT, P., 1983: Geografia cestovného ruchu. Veda, Bratislava, 224 s. OTRUBOVÁ, E., 2003: Humánna geografia II (Geografia zahraničného obchodu, Geografia cestovného ruchu). Prírodovedecká fakulta UPJŠ, Košice, 105 s. ŠTEPÁNEK, KOPAČKA, ŠÍP, 2001: Geografie cestovního ruchu, Vydalo Karolinum Praha, 228s.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 333					
A	B	C	D	E	FX
16.22	22.82	26.73	22.22	11.41	0.6
Provides: Mgr. Marián Kulla, PhD., prof. RNDr. Peter Spišiak, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ HUG2a/05	Course name: Human geography (productive sphere)
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: 5	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course: Location theories, factors and methods of industry evaluation. Territorial industrial units and regionalisation of the industry in Slovakia. Geographical characteristics of selected types of industry. Relationship of industry and environment. Trends in development and problems of the world economy. Development of agriculture and regularities of distribution of agricultural lands. The agricultural countries and their typology. The land use map. Geography of forests and its typology.	
Recommended literature: FALKOWSKI, J., KOSTROWICKI, J., 2001: Geografia rolnictwa świata. PWN, Warszawa, 516 p. KNOX, P., L., et al. 2010: Human geography. Places and regions in Global Context. pearson International Edition., 513 p. KOREC, P. 1994: Humánna geografia 1. Prírodovedecká fakulta, Univerzita Komenského, Bratislava, 120 s. MIRVALD, S., 2002: Geografie dopravy II. ZČU Plzeň, 56 s. MIRVALD, S., 2002: Geografie dopravy III. ZČU Plzeň, 43 s. POPJAKOVÁ, D., 1997: Základné kapitoly z geografie priemyslu, Prešov: PU, 144 s. SPIŠIAK, P., 2005: Základy geografie poľnohospodárstva a lesného hospodárstva. Prírodovedecká fakulta, Univerzita Komenského, Bratislava. 140 s. TOUŠEK, V. a kol., 2008: Ekonomická a sociální geografie, Plzeň, 2008, 411 s.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 516					
A	B	C	D	E	FX
7.75	23.84	29.84	25.97	10.85	1.74
Provides: prof. RNDr. Peter Spišiak, CSc., Mgr. Marián Kulla, PhD.					
Date of last modification: 18.02.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ EXHG1/15		Course name: Human Geography Excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 6d Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 537					
A	B	C	D	E	FX
86.59	7.08	3.91	0.56	0.93	0.93
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., Mgr. Ladislav Novotný, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HGS/15		Course name: Human Geography of Slovakia			
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: 5					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 291					
A	B	C	D	E	FX
3.44	8.59	16.49	36.43	29.55	5.5
Provides: prof. RNDr. Peter Spišiak, CSc., Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ MGS/06		Course name: Hungarian geographical 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 credits: 2					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Hungarian geographical terminology on particular topics in geology, geomorphology, climatology, hydrography, pedogeography, biogeography. The professionals from the past in Hungary, the system of university studies in Hungary. Hungarian geographical periodicals, monographs.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 12					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: prof. PhDr. Ladislav Tajták, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ CHV1/99		Course name: Chemical calculations			
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.					
Prerequisites:					
Conditions for course completion: Short written tests. Written test.					
Learning outcomes: To teach students how to calculate material balances in the systems with or without chemical processes and how to calculate examples concerning the chemical equilibrium.					
Brief outline of the course: Expression of the clear matter amount and the system composition. Stoichiometric formula. Material balances for preparation, dissolving and mixing of solutions, and for separating of mixtures. Material balances for combined processes. Chemical equations and material balances in the systems with chemical processes. Acid-Base equilibrium and the pH calculations. The solubility product and solubility.					
Recommended literature: Potočník I.: Chemické výpočty vo všeobecnej a anorganickej chémii (skriptum), PF UPJŠ, Košice, 2006.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 911					
A	B	C	D	E	FX
17.45	19.1	24.59	22.72	15.48	0.66
Provides: RNDr. Martin Vavra, PhD., doc. RNDr. Zuzana Vargová, Ph.D., Mgr. Miroslav Almáši, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ISC1a/00		Course name: Cheminformatics 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.					
Prerequisites:					
Conditions for course completion: seminar project					
Learning outcomes: Introductory course aimed at introducing students to the fundamental informatics techniques for chemistry-related disciplines. The class will cover a wide range of topics, including searching chemical information on internet, searching for patent information and work with the primary and secondary literature.					
Brief outline of the course: Searching, retrieving and use of the informations in chemistry. Using of "paper" resources (primary journals, Chemical Abstracts, Beilstein). Searching chemical information on Internet (Scirus, ScienceDirect, Scopus, Web of Science, Medline, NIST) and e-journals.					
Recommended literature: 1. R.E. Maizell: How to find Chemical Information, John Wiley, New York 1998 2. Internet resources for chemistry.					
Course language: slovak language and english language					
Notes:					
Course assessment Total number of assessed students: 661					
A	B	C	D	E	FX
62.48	10.29	15.73	8.62	1.97	0.91
Provides: RNDr. Monika Tvrdoňová, PhD., RNDr. Ladislav Janovec, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ SCHM/14		Course name: Chemistry			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 1					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: (ÚCHV/VCHU/10 or ÚCHV/VCHU/14 or ÚCHV/VCHU/15) and ÚCHV/ACHU/03 and ÚCHV/BCHU/03 and ÚCHV/FCHU/10 and ÚCHV/ANCHU/03 and ÚCHV/OCHU/03					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 21					
A	B	C	D	E	FX
14.29	52.38	28.57	4.76	0.0	0.0
Provides:					
Date of last modification: 30.05.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ACHU/03		Course name: Inorganic Chemistry			
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: 2.					
Course level: I.					
Prerequisites: ÚCHV/VCHU/10 or ÚCHV/VCHU/14 or ÚCHV/VCHU/15					
Conditions for course completion: Test in the middle and at the end of the semester. Oral examination.					
Learning outcomes: Aim of the course is to provide the students with a knowledge of systematic chemistry of non-metallic elements					
Brief outline of the course: Electronic configuration, abundance, use, physical and chemical properties, preparation, reactivity of non-metallic elements hydrogen, halogens, oxygen, sulphur, nitrogen, phosphorus, carbon, silicon, boron and rare gases. Binary and other compounds formed by these elements, their properties and reactivity. Metals and transition elements. Abundance, properties, reactivity, important compounds.					
Recommended literature: http://kosice.upjs.sk/~vladimir.zelenak/ACHU.htm (ppt slides from the lectures as a support for self study) Greenwood, N. N., Earnshaw, A: Chemistry of the Elements. Pergamon Press, Oxford, 1984 Atkins O., Overton T., Rourke J., Weller M., Armstrong F.: Inorganic Chemistry, University Press, Oxford, 2006.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 551					
A	B	C	D	E	FX
9.98	18.33	30.31	26.86	10.53	3.99
Provides: doc. RNDr. Vladimír Zeleňák, PhD.					
Date of last modification: 03.05.2015					

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ACH2/03		Course name: Inorganic Chemistry II			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ÚCHV/ACH1/03 or ÚCHV/ACH1/10 or ÚCHV/ACHU/03					
Conditions for course completion: Written examination at the end of the course. The final mark is given by the sum of points from seminars (max. 10 points) and 3x30 points from written test, totally 100 points. To pass it is required to obtain at least 51 points as well as 51 % of points from every partial examination.					
Learning outcomes: Goal of the course is to provide the students with a knowledge of systematic chemistry of metallic elements.					
Brief outline of the course: Electronic configuration, abundance, use, physical and chemical properties and reactivity of the elements of the 1st, 2nd groups, transition metal elements, elements of the 12th group, Al, Ga, In, Tl, Ge, Sn, Pb, As, Sb, Bi, Se, Te, Po, lanthanides and actinides. Binary and other compounds formed by these elements, their properties and reactivity. General properties, structure and bonding in metals, co-ordination and organometallic compounds.					
Recommended literature: 1. Greenwood, N. N., Earnshaw, A: Chemistry of the Elements. Pergamon Press, Oxford, 1984 2. Shriver, D.F., Atkins, P.W., Langford, C. H.: Inorganic Chemistry. 2ndEd., Oxford University Press, Oxford, 1995					
Course language:					
Notes:					
Course assessment Total number of assessed students: 528					
A	B	C	D	E	FX
10.8	18.37	31.44	26.33	8.33	4.73
Provides: prof. RNDr. Juraj Černák, CSc., RNDr. Juraj Kuchár, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ANCH1b/03	Course name: Instrumental 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 credits: 5	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisites:	
Conditions for course completion: Test Test	
Learning outcomes: Getting a knowledge of the theoretical principles and instrumentation in analytical chemistry.	
Brief outline of the course: Spectroscopic methods of analysis. Electromagnetic radiation. Basic components of spectroscopic instrumentation. Sources of energy. Detectors. Spectroscopy based on absorption. Transmittance and absorbance. Beer's Law. Limitations to Beer's Law. Ultraviolet-visible and infrared spectrophotometry. Atomic absorption spectroscopy. Spectroscopy based on emission. Molecular photoluminescence spectroscopy. Atomic emission spectroscopy. Spectroscopy based on scattering. Mass spectrometry. Electrochemical methods of analysis. Potentiometric methods of analysis. Reference electrodes. Membrane electrodes. Coulometric methods of analysis. Voltammetric methods of analysis. Chromatographic methods. General theory of column chromatography. Optimizing chromatographic separations. Gas chromatography. High-performance liquid chromatography. Ion-exchange chromatography. Supercritical fluid chromatography.	
Recommended literature: 1. Christian G.D. Analytical Chemistry. John Wiley & Sons, Inc. New York – Chichester – Brisbane – Toronto – Singapore 1994. 2. Holtzclaw H.F., Jr., Robinson W.R. College Chemistry with Qualitative Analysis. D.C. Heath and Company 1988.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 430					
A	B	C	D	E	FX
21.86	13.02	23.49	18.37	22.79	0.47
Provides: prof. Mgr. Vasil' Andruch, CSc., RNDr. Rastislav Serbin, PhD., RNDr. Livia Kocúrová, PhD., RNDr. Jana Šandrejová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ UECH/03	Course name: Introduction to Environmental 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 credits: 5	
Recommended semester/trimester of the course: 3.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion: Oral examination	
Learning outcomes: Introduction to topics in environmental chemistry and basic procedures applied for environmental protection.	
Brief outline of the course: Introduction to Environmental Chemistry Chemical aspects of pollution and environmental problems. Composition and behavior of the atmosphere. Energy balance of the Earth and climate changes. Principles of photochemistry, photoprocesses in the atmosphere. Petroleum, hydrocarbons and coal (characteristics, sources and environmental pollution). Soaps, polymers and synthetic surfactants. Haloorganics and pesticides. Environmental chemistry of some important elements (C, N, S, P, halogens, biologically important metals ...). Environmental chemistry in aqueous media. Aqueous systems, parameters, cycles and their protection. The Earth's crust (rocks, minerals, soils). Natural and artificial radioactivity, utilization. Energy and energy sources (fossil fuels, nuclear, geothermal, solar energy, wind and water energy). Solid waste disposal and recycling.	
Recommended literature: 1. Gary W. van Loon, Stephen J. Duffy : Environmental Chemistry - A Global Perspective, Oxford University Press, Oxford 2003 2. R.A. Bailey, H.M. Clark, J.P. Ferris, S. Krause, R.L. Strong : Chemistry of the Environment, Academic Press, San Diego 2002 3. G. Schwedt: The Essential Guide to Environmental Chemistry, Wiley and Sons, London 2001 4. R.N. Reeve, J.D. Barnes: General Environmental Chemistry, Wiley, London 1994 5. G. Burton, J. Holman, G. Pilling, D. Waddington: Chemical Storylines, Heinemann, Oxford, London 1994 6. www	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 195					
A	B	C	D	E	FX
47.69	19.49	16.92	9.23	6.67	0.0
Provides: RNDr. Andrea Straková Fedorková, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ UGE/15	Course name: Introduction to Geography
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Participation in exercises, successfully processed award, graduation the final test. Credits will not be awarded to students, who will not have successfully processed award and does not pass the final test min. to 60%.	
Learning outcomes: Students profit a basic orientation in the position and structure of the department, current development trends and literature. Students will create a comprehensive picture of discovering Earth and the gradual development of geography from the earliest times to the present in the context of the most important personalities and milestones of development. Students profit a basic information about the personality of Geography and applications of geography into practice.	
Brief outline of the course: Home geographic discipline is to provide students a basic orientation – object Geography, subject Geography, Landscape sphere of the Earth, System of geographic sciences (Haggett model, Demko model, model of Mičian, Lauko model), application geographic knowledge into practice, development of geographic thought (Period before Antik - oldest maps, market, strategic importance of geographic information, Ancient period - Greek geography, cosmological ideas - Roman geography, new cartographic methods, Mediaeval period - Arab geography, market, belief, cartography, compass, Period of large geographic discoveries - rediscovery of America, Around the World, Australia, Antarctica, Northern sea way), personality Geography (Humboldt, Ritter, Hetner, Bel, Hromádka, Lukniš), Human Geography, Regional Geography (basic theories and their representatives), Hettner School, use geography in practice.	
Recommended literature: RIEDLOVÁ, M., DEMEK, J., PECH, J. 1980: Úvod do studia geografie, dějiny geografie. Praha, SPN, 158 s. DEMEK, J. 1987: Úvod do štúdia teoretickej geografie. Bratislava, SPN. 241 s. KVITKOVIČ, J. 2000: Alexander von Humbolt - priekopník modernej geografie. Geografia, 8, 2, 73-78 s. LUKNIŠ, M. 1987: prof. Ján Hromádka ako vedec, pedagóg a človek. Geografický časopis, 38, 2-3, 118-125 s. TIBENSKÝ, J. a kol. 1987: Matej Bel - doba, život, dielo. Bratislava, Vyd. VEDA. 411 s.	

Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 759					
A	B	C	D	E	FX
9.09	11.46	27.54	26.61	23.72	1.58
Provides: prof. Mgr. Jaroslav Hofierka, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: Dek. PF UPJŠ/USPV/13	Course name: Introduction to Study of Sciences
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: Per study period: 12s / 3d Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 733	
abs	n
96.32	3.68
Provides: doc. RNDr. Mária Kožurková, CSc., prof. RNDr. Katarína Cechlárová, DrSc., prof. RNDr. Beňadik Šmajda, CSc., prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Ivan Žežula, CSc., doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Jozef Hanč, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Vladislav Kolarčík, PhD., RNDr. Janetta Nestorová-Dická, PhD.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ KVA/15		Course name: Landscape in the Quarternary			
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: 5.					
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: 256					
A	B	C	D	E	FX
46.88	30.08	14.45	6.64	1.95	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., Ing. Katarína Bónová, PhD.					
Date of last modification: 08.09.2016					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/MIK/15	Course name: Microgeography
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: 3	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisites:	
Conditions for course completion: Participation in exercises, presentation of seminar topics, graduation the final test. Credits will not be awarded to students, who will not have successfully processed and presented the seminar topic and does not pass the final test min. to 60%.	
Learning outcomes: Ability of synthesis and analysis of selected micro-region for the needs of local government.	
Brief outline of the course: 1. The micro-region and the local region in the context of regional taxonomic levels. 2. Theory and Methodology, collection of information (data collection). 3. Differentiation landscape sphere and cultural landscapes of the example chosen region (Location - Geology - Relief - Climate - Rivers - Soils - Flora - Fauna - Population (population dynamics, forecasts, Statistical offices) - Settlements (change in the function of settlements, place in the settlement system, land use map, questionnaires, mapping) - Primary sector - Secondary sector - Tertiary Sector. 4. Regionalization – branch, complex, land use. 5. TUR - MUSES - USES - RUSES. 6. Complex presentation of the research territory at the Municipal Office.	
Recommended literature: DUBCOVÁ, A. a kol. 2012: Mikrogeografia - krajina okolo nás. FPV UKF Nitra, 185 s. KANDRÁČOVÁ, V., MICHAELI, E. 1998: Ľubotice. OÚ Ľubotice. 116 s. LAUKO, V. 1997: Fyzická geografia Slovenska 1. UK, Bratislava. 148 s. LUKNIŠ, M. 1977: Geografia krajiny Jura pri Bratislave. UK, Bratislava. 211 s. Základná mapa SR 1: 10 000 Kolektív, 1977: Vlastivedný slovník obcí na Slovensku diely I-II, Veda Bratislava. 528 s., 519 s. Kolektív, 1978: Vlastivedný slovník obcí na Slovensku diely III, Veda Bratislava. 533 s.	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 21					
A	B	C	D	E	FX
52.38	33.33	14.29	0.0	0.0	0.0
Provides: prof. RNDr. Peter Spišiak, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ NJ//13	Course name: Naval Yachting
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present	
Number of 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:	
Notes:	
Course assessment Total number of assessed students: 2	
abs	n
100.0	0.0
Provides: doc. Mgr. Rastislav Feč, PhD.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/OCHU/03	Course name: Organic chemistry
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: 2.	
Course level: I.	
Prerequisites: ÚCHV/VCHU/15 or ÚCHV/VCHU/14 or ÚCHV/VCHU/10 or ÚCHV/VACH/10	
Conditions for course completion: Two tests at lecture in 7 and 14th week. Test max 50 points. At least 25 points required. Written exam, 100 points. At least 49% of points required. Final evaluation: A 90-100 pts, B 80-89 pts, C 70-79 pts, D 60-69 pts, E 50-59 pts, FX 0-49 pts	
Learning outcomes: Basic organic chemistry course.	
Brief outline of the course: Chemical bonding Hybridization and Bonding Covalent bonds Double bonds and Triple Bonds Structural Formulas of Organic Molecules Polar Covalent Bonds and Electronegativity Constitutional Isomers Alkenes Electrophilic Additions Strong Brønsted Acids Lewis Acids (non-Proton Electrophiles) Electrophilic Halogen Reagents Other Electrophilic Reagents Reduction Oxidation Radical Additions Allylic Substitution Alkynes Addition Reactions Hydrogenation Electrophiles Hydration & Tautomerism Hydroboration Nucleophilic Addition & Reduction Acidity of Terminal Alkynes (Substitution of H) Alkyl Halides General Reactivity Substitution (of X) SN2 Mechanism SN1 Mechanism Elimination (of HX) Summary of Substitution vs. Elimination Substitution by Metals Elimination Reactions of Dihalides Alcohols Reactions of Alcohols Substitution of the Hydroxyl H Substitution of the Hydroxyl Group Elimination of Water Oxidation of Alcohols Reactions of Phenols Acidity of Phenols Ring Substitution of Phenols Oxidation to Quinones Aromatic compounds Electrophilic Substitution A Substitution Mechanism Reactions of Substituted Benzenes Reaction Characteristics Reactions of Disubstituted Rings Reactions of Substituent Groups Nucleophilic Substitution, Elimination & Addition Reactions Amines Basicity of Nitrogen Compounds Acidity of Nitrogen Compounds Important Reagent Bases Reactions of Amines Electrophilic Substitution at Nitrogen Preparation of 1°-Amines Preparation of 2° & 3°-Amines Reactions with Nitrous Acid Reactions of Aryl Diazonium Intermediates Elimination Reactions of Amines Oxidation States of Nitrogen Basic information: Aldehydes & Ketones Carboxylic Acids Carboxylic Derivatives Natural products	
Recommended literature: 1. on-line ppt presentation in MOODLE, moodle.science.upjs.sk 2. Organic Chemistry, Clayden, Greeves Warren & Wothers, Oxford University Press, 2010 3. Organic Chemistry, Solomon, Wiley, 2009	

Course language:					
Notes:					
Course assessment					
Total number of assessed students: 582					
A	B	C	D	E	FX
3.61	8.08	14.78	20.96	47.42	5.15
Provides: prof. RNDr. Jozef Gonda, DrSc., RNDr. Slávka Hamuláková, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ OCH1b/03	Course name: Organic chemistry II
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present	
Number of credits: 7	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisites:	
Conditions for course completion: Two tests at lecture in 7 and 14th week. Test max 50 points. At least 25 points required. Written exam, 100 points. At least 49% of points required. Final evaluation: A 90-100 pts, B 80-89 pts, C 70-79 pts, D 60-69 pts, E 50-59 pts, FX 0-49 pts	
Learning outcomes: Second part of two-semester organic chemistry course.	
Brief outline of the course: Reaction Mechanisms, Mechanisms of Organic Reactions, Reactive Intermediates, Ionic Reactions Radical Reactions Bond Energy Reaction Energetics Activation Energy Reaction Rates and Kinetics Thermodynamic and Chemical Stability Aromaticity Benzene and Other Aromatic Compounds Fused Benzene Ring Compounds Other Aromatic Systems Factors Required for Aromaticity Stereoisomers Chirality and Symmetry Enantiomorphism Polarimetry Optical Activity Designating the Configuration of Stereogenic Centers The Sequence Rule for Assignment of Configurations to Stereogenic Carbons Compounds Having Two or More Stereogenic Centers Stereogenic Nitrogen Fischer Projection Formulas Aldehydes & Ketones Natural Products Synthetic Preparation Properties of Aldehydes & Ketones Reversible Addition Reactions Hydration & Hemiacetal Formation Acetal Formation Imine Formation Enamine Formation Cyanohydrin Formation Irreversible Addition Reactions Complex Metal Hydrides Organometallic Reagents Carbonyl Group Modification Wolff-Kishner Reduction Clemmensen Reduction Hydrogenolysis of Thioacetals Oxidations Reactions at the α -Carbon Mechanism of Electrophilic α -Substitution The Aldol Reaction Ambident Enolate Anions Alkylation of Enolate Anions Carboxylic Acids Natural Products Related Derivatives Preparation of Carboxylic Acids Reactions of Carboxylic Acids Salt Formation Substitution of Hydroxyl Hydrogen Substitution of the Hydroxyl Group Reduction & Oxidation Carboxylic Derivatives Reactions of Carboxylic Acid Derivatives Acyl Group Substitution Mechanism Reduction Catalytic Reduction Metal Hydride Reduction Diborane Reduction Reaction with Organometallic Reagents Reactions at the α Carbon Acidity of a C-H The Claisen Condensation Synthesis Applications Carbohydrates Glucose The Structure and Configuration of Glucose Anomeric Forms of Monosaccharides Glycosides Disaccharides Polysaccharides Lipids Fatty Acids Soaps & Detergents Fats & Oils Nucleic Acids Alkaloids Terpenes	

Recommended literature:

1. on-line moodle.science.upjs.sk
2. Organic Chemistry, Clayden, Greeves Warren & Wothers, Oxford University Press, 2010
3. Organic Chemistry, Solomon, Willey, 2009

Course language:**Notes:****Course assessment**

Total number of assessed students: 495

A	B	C	D	E	FX
11.52	12.32	17.17	23.03	32.73	3.23

Provides: prof. RNDr. Jozef Gonda, DrSc., doc. RNDr. Miroslava Martinková, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ POCHU/15		Course name: Organic chemistry - Lab.			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites: ÚCHV/OCHU/03					
Conditions for course completion: Two tests 2x25 p., twelve reports 12x2 p., laboratory skills 12 p., short quizzes and questions 14 p. A 100 p. in total. Grades: A: 91-100b, B: 81-90b, C: 71-80b, D: 61-70b, E: 51-60b, Fx: 0-50b. Based on continuous evaluation.					
Learning outcomes: Students will become familiar with the basic isolation and purification methods used in a synthetic laboratory. Students should master basic laboratory technique and be able to apply the theoretical knowledge from the basic course of organic chemistry in simple synthetic projects.					
Brief outline of the course: Preparation, isolation, purification and identification of organic compounds. The emphasis is on gaining the experimental skills in synthesis of organic compounds, distillation, extraction, crystallization, sublimation and thin-layer chromatography.					
Recommended literature: 1. Handout with experimental procedures http://kekule.science.upjs.sk/pochu . 2. Organic chemistry lectures.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 30					
A	B	C	D	E	FX
66.67	33.33	0.0	0.0	0.0	0.0
Provides: RNDr. Slávka Hamuláková, PhD., RNDr. Martin Walko, PhD., RNDr. Mária Vilková, PhD., RNDr. Ladislav Janovec, PhD., RNDr. Ján Elečko, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ Pg/15		Course name: Pedagogy			
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: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 67					
A	B	C	D	E	FX
40.3	16.42	19.4	7.46	14.93	1.49
Provides: PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Boberová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ FYG1/03		Course name: Physical geography 1			
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: 5					
Recommended semester/trimester of the course: 3.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Hydrology of the running water, genesis and development of river basins, measuring of water and its flow. Genesis and the main types of lakes, temperatures, water movements. Sea and water currents, its chemical properties, relief of the sea-floor. Subsurface waters, glaciers. In the section of soil science and soil geography, physical and chemical nature of soils will be treated as well as actual and presently used systems of the soil classification. Distribution of different soil types in the world and Slovakia, principles of the soil zonality.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 590					
A	B	C	D	E	FX
2.37	4.07	18.64	27.8	39.32	7.8
Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ FYG2/05		Course name: Physical geography 2			
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: 5					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Atmospheric conditions and their physical origins, general planetary air circulation, most important climatic types and the climate of Slovakia. Measuring of the basic meteorological events will be done by students in the practical part of this course. In the study of biogeography we will focus on the biosphere as a part of the physical-geographic sphere. Further focus will be put on the function and position of organisms on the surface, as well as the main regularities of their distribution throughout the world. Phytogeographical and zoogeographical regions of the world and Slovakia. In the practical part students acquaint with the soil profiles and important kinds of plants in Slovakia.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 548					
A	B	C	D	E	FX
28.83	24.82	27.37	11.13	7.3	0.55
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ EXFG/15		Course name: Physical Geography Excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 6d Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 584					
A	B	C	D	E	FX
89.04	8.39	1.37	0.17	0.51	0.51
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/FGS/15		Course name: Physical Geography of Slovakia			
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: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 294					
A	B	C	D	E	FX
18.71	29.59	30.27	14.29	4.76	2.38
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ FCHU/10		Course name: Physical Chemistry			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 6					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚCHV/VCHU/14 or ÚCHV/VCHU/10 or ÚCHV/VACH/10 or ÚCHV/VCHU/15					
Conditions for course completion: Written test Examination					
Learning outcomes: To provide the students with basic knowledge of physical chemistry.					
Brief outline of the course: Fundamental concepts of thermodynamics, thermochemistry, chemical equilibrium, phase equilibria and diagrams, laws for ideal gas and reals gases, liquids, solutions, solutions of electrolytes. Electrochemistry: ionics and electrodicts. Electrodes and electrochemical cells, corrosion. Chemical kinetics, catalysis. Adsorption.					
Recommended literature: T. Engel, P. Reid: Physical Chemistry, Pearson Educat. Inc., San Francisco 2006 P.W. Atkins: Physical Chemistry, Oxford University Presss, Oxford 1986, 1990, 1996 W.J. Moore: Physical Chemistry, Longman, London 1972 and newer editions					
Course language:					
Notes:					
Course assessment Total number of assessed students: 172					
A	B	C	D	E	FX
29.07	18.6	12.79	19.19	15.12	5.23
Provides: doc. RNDr. Renáta Oriňaková, DrSc., RNDr. Andrea Morovská Turoňová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ FCH1b/10	Course name: Physical Chemistry II
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present	
Number of credits: 6	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisites: ÚCHV/FCH1a/03 or ÚCHV/FCHU/10	
Conditions for course completion: Two partial tests from computational seminars in 6th and 12th week of semester. Examination.	
Learning outcomes: Understandable explain to students the principles of chemical kinetics of processes, to elucidate the kinetics and mechanism of some reactions. To analyse particularly the equilibrium and kinetics of electrode processes.	
Brief outline of the course: Electrochemistry. Equilibrium homogeneous processesn electrolyte solutions. Charge transfer in electrolyte solutions. Nonequilibrium homogeneous processes. Trnasport processes in electrolyte solutions. Conductance and molar conductivity. Hindering effects. Transport numbers. Equilibrium in heterogeneous electrochemical systems. Pocesses on charged interfaces. Electrochemical cells and fuel cells. Classification of electrode types. Concentration cells. Electrolysis. Electrochemical power sources. Potentiometry. Electrical double layer. Surface tension. Chemical kinetics. Homogeneous processes. Reaction rate. Reaction order. Classification of chemical reactions. Elementary chemical reactions. Mechanism and kinetics equations of complicated chemical processes. Methods of rate low determination. Theory of chemical kinetics. Ttemperature dependence of reaction rates. Collision theory. Activated complex theory. Chain reactions. Structure and rate lows of chain reactions. Explosion. Polymerisation reactions. Photochemical reactions. Catalysis. Theory of homogeneous catalysis. Chemical oscillation reactions. Heterogeneous processes. Difusion. Physical and chemical adsorption. Adsorption and diffusion. Processes in heterogeneous electrochemical systems. Electrode kinetics, activation and diffusive mechanism of charge transfer. Application of theoretical relationships on the solving of concrete problems and on the calculation of examples during seminars.	
Recommended literature: T. Engel, P. Reid : Physical Chemistry, Pearson Educat. Inc., San Francisco 2006 P.W. Atkins : Physical Chemistry,Oxford University Presss, Oxford 1986, 1990, 1994, 1998 W.J. Moore : Physical Chemistry,Longman, London 1972 and newer editions	

Course language:					
Notes:					
Course assessment					
Total number of assessed students: 451					
A	B	C	D	E	FX
15.52	18.4	21.51	19.96	20.18	4.43
Provides: doc. RNDr. Renáta Oriňáková, DrSc., RNDr. Lenka Lorencová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ FPCh/08		Course name: Physics for Chemists			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 6					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Test-papers (2). Exam.					
Learning outcomes: Completing the course students will get knowledge of fundamental physical laws and will understand their relation to chemistry.					
Brief outline of the course: Kinematics and dynamics of mass point, rigid bodies and fluids. Structure and properties of materia. The kinetic theory of gases and the foundations of thermodynamics. Structure and properties of liquids. Mechanical properties of solids, Hooke's Law. Stationary el. field and constant electric current. Magnetic field. Optics.					
Recommended literature: 1. V. Hajko, J. Daniel-Szabó: Základy fyziky. Veda, Bratislava, 1980. 2. Š. Veis, J. Maďar, V. Martišovič: Všeobecná fyzika 1, Mechanika a molekulová fyzika. Alfa, Bratislava, 1978. 3. P. Čičmanec: Všeobecná fyzika 2, Elektrina a magnetizmus. Alfa, Bratislava, 1980. 4. R.P. Feynman, R.B. Leighton, M. Sands: Feynmanove prednášky z fyziky 1-5. Alfa, Bratislava, 1985. 5. V. Hajko a kol.: Fyzika v príkladoch. Alfa, Bratislava, 1983.					
Course language: Slovak language.					
Notes:					
Course assessment Total number of assessed students: 372					
A	B	C	D	E	FX
18.55	26.34	29.84	15.32	9.68	0.27
Provides: Mgr. Gregor Bánó, PhD., RNDr. Zuzana Jurašeková, PhD.					

Date of last modification: 03.05.2015
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ PLG/15	Course name: Planetary Geography
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion: The evaluation is based on a combination of the continuous and final control. The continuous control is carried out in the form of tasks on an individual work with a share of 30% of the resultant evaluation. The final control is written and constitutes 70% of the resultant evaluation. The resultant evaluation is a weighted average of the continuous (30%) and final (70%) control. Credits will be awarded only to student who achieves the evaluation at the minimum level of the mark E in every part of the evaluation.	
Learning outcomes: The learning result is getting the basics of astronomy and astrophysics in terms of planetary geography.	
Brief outline of the course: A brief overview of astronomy. The emergence and development of fundamental knowledge about the Earth and the universe. Space system components and building solar system: origin and evolution of the solar system and solar system objects. Mechanics of the solar system - Kepler's laws of planetary orbits elements, aspects and anomalies, solar system objects. Celestial sphere. Movements of the sun, moon and celestial bodies. Basic data on the Earth. Movements of Earth and their geographical implications. Coordinate systems and basic orientation on the surface. Time and calendar, timing and time zones.	
Recommended literature: Andrlé, P., 1971: Základy nebeskej mechaniky. Praha: Academia, 1971, 305s. Brázdil, R., Mucha, L., Okáč, Z., 1981: Matematická geografie. Praha: NTL, 1981, 273s. Brázdil, R. a kol., 1988: Úvod do studia planety Země. Praha: SPN, 1988, 365 s. Čeman, R., Pittich E., 2005: Vesmír I - Slnec a sústava. Bratislava: MAPA Slovakia, 2005, 383s. Čapek, R. 1992: Planetární geografie. Praha: Karolinum, Praha, 84s. Dušek, J., Grigar, J. a Pokorný, Z., 2009: Naš vesmír. Praha: Aventinum, 2009, 255s., ISBN: 9788086858654. Farndon, J., 2003: 1000 zaujímavostí o vesmíre. Bratislava: Belimex, 2003, 224s., ISBN: 80-89083-33-1. Ferris, T., 2005: Všetko o vesmíre. Bratislava: Remedium, 2005, 415s., ISBN: 8088993857. Grego, D., 2011: Neuveriteľný vesmír, Praha: Albatros, 2011, 120s., ISBN: 978-80-00-02818-7.	

Hilbert, H., 2001: Vybrané kapitoly z planetárnej geografie. Banká Štiavnica: UMB Fakulta prírodných vied, 2001, 96s.
Hlaváč, Z., 2000: Základy sférickej astronómie a nebeské mechaniky, Plzeň: Západočeská univerzita, 2000, ISBN 80-7082-694-0.
Jakeš, P., 1984: Planeta Země. Praha: Mladá fronta, 1984, 416s.
Némethová, J. a Garai, Z., 2008: Zbierka otázok a úloh z planetárnej geografie. Nitra: UKF, 2009, ISBN: 9788080945602.
Astronomická ročenka 2013, 2014, journal, Hurbanovo: Slovenská ústredná hviezdáreň (Slovak Central Observatory).

Course language:

Slovak

Notes:

without notices

Course assessment

Total number of assessed students: 381

A	B	C	D	E	FX
21.0	21.26	24.93	21.78	6.56	4.46

Provides: prof. Ing. Vladimír Sedlák, PhD.

Date of last modification: 03.05.2015

Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ PVS/15	Course name: Population growth in Slovakia
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.	
Prerequisites:	
Conditions for course completion: The evaluation of student's performance is implemented through a combination of current, random control during the term and the examination part within a particular period of the semester. This type of continuous control includes at least 80% of students' active participation in teaching and successful solutions of given assignments. If a student does not follow and fulfil these two conditions, i. e. compulsory active learning part of the course, together with active participation and in addition will not solve assigned tasks successfully cannot register, assign for the examination (oral/written). If the student receives more than 51% in the written form may proceed to the oral form. If a student does not demonstrate particular knowledge during the oral examination student has to take both forms of the examination once again.	
Learning outcomes: The Student shall acquires deeper knowledge of the population of Slovakia in terms of time and 3-D.	
Brief outline of the course: Development of the population and its spatial differentiation, population Dynamics (natural, migration, the total movement); Reproduction of the population; Migration for work, Foreign and internal migration; The ageing of the population; The specificities of the Roma population in Slovakia; The educational structure of the population; Economic, social, according to the marital status of the population structure; Ethnic and religions structure of the population ; Slovakia in the EU in terms of population processes; The demographic future of Slovakia. Seminars Workshops during the semester are focused on filling the solution of tasks in order to practice or demonstrate the phenomena studied in the different regional units.	
Recommended literature:	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 102					
A	B	C	D	E	FX
76.47	0.98	4.9	5.88	7.84	3.92
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/ADP/03		Course name: Porous materials and their applications					
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: 6.							
Course level: I., II., III.							
Prerequisites:							
Conditions for course completion: Written test in the middle and the end of the semester.							
Learning outcomes: To make the acquaintance of various types of advanced porous solids and basic methods for their investigation. To get up the students with the methods used in characterisation of specific surface area and pore size of different types of porous materials.							
Brief outline of the course: Terminology and principal terms associated with powders, porous solids and adsorption. Methodology of adsorption at the gas-solid interface, liquid-solid interface. Assessment of surface area and porosity. Inorganic materials (active carbon, metal oxides, zeolites, clay minerals, new advanced materials) and phenomenon of adsorption. Application in the industry and everyday life.							
Recommended literature: 1. F. Rouquerol, J. Rouquerol, K. Sing: Adsorption by powders and porous solids, Academic press, London, UK, 1999 2. S. J. Gregg, K.S.W. Sing: Adsorption, surface area and porosity, Academic Press, London,, UK, 1982. 3. V. Zelenák: Adsorption and porosity of solid substances, internal study text, PF UPJŠ, 2007.							
Course language:							
Notes:							
Course assessment Total number of assessed students: 55							
A	B	C	D	E	FX	N	P
81.82	10.91	3.64	0.0	0.0	0.0	0.0	3.64
Provides: doc. RNDr. Vladimír Zelenák, PhD.							
Date of last modification: 03.05.2015							
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PP/15		Course name: Positive Psychology			
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., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 14					
A	B	C	D	E	FX
85.71	7.14	0.0	0.0	7.14	0.0
Provides: Mgr. Jozef Benka, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HYP/15		Course name: Practical course of Hydrology			
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: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 42					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: RNDr. Dušan Barabas, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/PACHU/03		Course name: Practical from Inorganic Chemistry			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 4 Per study period: 56 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites: ÚCHV/VCHU/14 or ÚCHV/VCHU/15 or ÚCHV/VCHU/10 or ÚCHV/VACH/10					
Conditions for course completion:					
Learning outcomes: The practical acquirements at preparation and study of inorganic compounds and their physico-chemical properties by common laboratory techniques.					
Brief outline of the course: The utilization of common laboratory techniques for preparation of elements (H ₂ , O ₂ , Cu, Ni), oxides(CO ₂ , Al ₂ O ₃ ·xH ₂ O), nitrides(Mg ₃ N ₂), acids (HNO ₃ , H ₃ BO ₃), salts((NH ₄) ₂ SO ₄ , KMnO ₄), binary salts(NH ₄)Fe(SO ₄) ₂ ·12H ₂ O), halides (CuCl, CuCl ₂ ·2H ₂ O, SnI ₄ , CuBr ₂) and coordination compounds ([Cr ₂ (CH ₃ COO) ₄ (H ₂ O) ₂], [CoCl ₂ (en) ₂]Cl, [Cu(NH ₃) ₄]SO ₄ ·H ₂ O, K ₃ [Al(C ₂ O ₄) ₃]·3H ₂ O).					
Recommended literature: Z. Vargová, J. Kuchár: Praktikum z anorganickej chémie, Košice, 2008 M. Reháková, M. Dzurillová, V. Zeleňák, V. Urvichiarová: Laboratórna technika, PF UPJŠ, Košice, 1999					
Course language:					
Notes:					
Course assessment Total number of assessed students: 364					
A	B	C	D	E	FX
46.43	28.3	17.86	3.02	3.02	1.37
Provides: RNDr. Juraj Kuchár, PhD., RNDr. Martin Vavra, PhD., RNDr. Miroslava Matiková-Maľarová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ PFCU/03		Course name: Practical in Physical 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 credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: Approved laboratory reports Assessment					
Learning outcomes: Theoretical principles, description of each technique and appropriate physical chemistry experiments.					
Brief outline of the course: Experimental verification of theoretical knowledge on thermodynamics, thermochemistry, chemical equilibria (determination of enthalpy, phase diagrams), colligative properties (cryoscopy, ebullioscopy), adsorption. Experimental verification of theoretical knowledge on electrochemistry (conductivity, dissociation constants, activity coefficients, electromotive force of galvanic cell, Daniell cell, potentials, polarography) and chemical kinetics (determination of rate constants).					
Recommended literature: B.P. Levitt: Findlay's Practical Physical Chemistry, Longman, London 1973 W.J. Moore: Physical Chemistry, Longman, London 1972 P.W. Atkins: Physical Chemistry, Oxford University Press, Oxford, New York 2002					
Course language:					
Notes:					
Course assessment Total number of assessed students: 211					
A	B	C	D	E	FX
68.25	23.7	7.11	0.95	0.0	0.0
Provides: RNDr. František Kaľavský, RNDr. Andrea Morovská Turoňová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/Ps/15		Course name: Psychology			
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: 2					
Recommended semester/trimester of the course: 1., 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 43					
A	B	C	D	E	FX
4.65	6.98	37.21	25.58	9.3	16.28
Provides: Prof. PhDr. Oľga Orosová, CSc., PhDr. Anna Janovská, PhD., Mgr. Lucia Hricová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PKŽ/15		Course name: Psychology of Everyday Life			
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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 32					
A	B	C	D	E	FX
40.63	28.13	25.0	6.25	0.0	0.0
Provides: Mgr. Ondrej Kalina, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ RUR/15		Course name: Rural Geography			
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: 6.					
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: 270					
A	B	C	D	E	FX
40.37	30.37	20.37	7.04	1.11	0.74
Provides: prof. RNDr. Peter Spišiak, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

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: 36 Per study period: 504 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:	
Notes:	
Course assessment Total number of assessed students: 7	
abs	n
57.14	42.86
Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/VKFV/07		Course name: Selected Topics in Philosophy of Education (General Introduction)			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites: KFaDF/DF1/05					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
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. PhDr. Pavol Tholt, PhD., mim. prof.					
Date of last modification:					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ SBP1/13	Course name: Seminar of bachelor work
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: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Verification of acquired basic methodologic and formal procedures of the final thesis creation by presentation (70% of rating) and written examination (30%). To obtain A grade, weighted average of the both parts of examination must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain less than 50% from any of both parts of examination.	
Learning outcomes: Mastering basic theoretical, methodological and formal scientific procedures of bachelor thesis creation.	
Brief outline of the course: The content and form of selected parts of thesis writing (abstract, introduction, conclusion, etc.) Ethics and culture of writing diploma thesis, citations and references, types of sources (printed, electronic, etc.). Formal aspects of the thesis. Linguistic adjustment (terminology, stylistics, syntax, grammar, typography). Rules of presentation of the thesis. Presentation of current results and state of diploma thesis.	
Recommended literature: HOVORKA, D., KOMÁREK, K., CHRAPAN, J. 2011: Ako písať a komunikovať. Martin (Vydavateľstvo Osveta), 247 s. KATUŠČÁK, D. 2008: Ako písať záverečné a kvalifikačné práce. Nitra (Enigma), 162 s. ÚTVAR REKTORA UPJŠ (2011): Smernica č. 1/2011, Dostupné na internete: < http://www.upjs.sk/public/media/2438/smernica-1-2011.pdf >, 25 s.	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 283					
A	B	C	D	E	FX
94.35	3.89	0.71	0.0	1.06	0.0
Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Ladislav Novotný, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ SBP2/13		Course name: Seminar of bachelor work			
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: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Verification of acquired methodological and formal procedures of the creation of bachelor thesis by the presentation of current thesis creation by presentation of own bachelor thesis (100% of rating). To obtain A grade, the rating of student's presentation must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain rating less than 50%.					
Learning outcomes: Acquired skills to apply theoretical, methodological and formal scientific procedures of diploma thesis creation.					
Brief outline of the course: The seminary is focused to the topics of individual bachelor thesis. Students present current state of their thesis, its content and its particular parts. Each bachelor thesis is discussed at scientific level.					
Recommended literature: HOVORKA, D., KOMÁREK, K., CHRAPAN, J. 2011: Ako písať a komunikovať. Martin (Vydavateľstvo Osveta), 247 s. KATUŠČÁK, D. 2008: Ako písať záverečné a kvalifikačné práce. Nitra (Enigma), 162 s. ÚTVAR REKTORA UPJŠ (2011): Smernica č. 1/2011, Dostupné na internete: < http://www.upjs.sk/public/media/2438/smernica-1-2011.pdf >, 25 s.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 247					
A	B	C	D	E	FX
79.35	14.17	4.45	0.81	0.4	0.81
Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Ladislav Novotný, PhD.					
Date of last modification: 03.05.2015					

Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ASM/03	Course name: Separation 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: 5	
Recommended semester/trimester of the course: 6.	
Course level: I.	
Prerequisites: (ÚCHV/ANCHU/03 or ÚCHV/ANCHE/09 or ÚCHV/ANCH1b/03) and (ÚCHV/PAEC/03 or ÚCHV/PANCH/06 or ÚCHV/PANCHE/09 or ÚCHV/PACU/03)	
Conditions for course completion: Examination	
Learning outcomes: Survey of basic principles, theoretical background and applications of separation methods in research and analytical practice.	
Brief outline of the course: Basic principles, classification, theory and applications of separation methods. Extraction - LLE, SPE, SPME. Chromatographic methods - theory, classification. Gas chromatography, retention mechanisms, stationary phases and their selection. Instrumentation, detectors in GC. Data evaluation - qualitative and quantitative analysis. High-performance liquid chromatography, principles, classification. Stationary and mobile phases in LC, instrumentation. Applications. Comparison of GC and HPLC methods. Planar chromatographic methods - TLC, HPTLC, PC. Electrophoretic techniques - CE, ITP, HPCE. MEKC - micellar electrokinetic capillary chromatography. Lab-on-a-Chip (LOC), TAS, electrophoresis on a chip, principles and applications.	
Recommended literature: Krupčík, J.: Separačné metódy, SVŠT CHTF, Bratislava 1983. Skoog D. A., Leary J. J.: Principles of instrumental analysis. Saunders College Publishing, New York 1997. Pawliszyn J., Lord H. L.: Handbook of sample preparation, Wiley 2010. Churáček J., Jandera P.: Úvod do vysokoúčinné kapalinové chromatografie, SNTL, Praha 1984.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 404					
A	B	C	D	E	FX
27.72	25.0	25.25	12.87	6.44	2.72
Provides: doc. RNDr. Taťána Gondová, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ OLŠ/15		Course name: School Administration and Legislation			
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., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 15					
A	B	C	D	E	FX
26.67	20.0	40.0	6.67	6.67	0.0
Provides: Mgr. Zuzana Boberová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPO/SPKV/15		Course name: Social and Political Context of Education			
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: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
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: prof. PhDr. Marcela Gbúrová, CSc.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/OJPV1/07		Course name: Specialised German Language - Natural Sciences 1			
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.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 125					
A	B	C	D	E	FX
20.8	21.6	26.4	22.4	8.0	0.8
Provides: Mgr. Eva Černáková, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

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:		
Notes:		
Course assessment Total number of assessed students: 7947		
abs	n	neabs
87.96	8.12	3.93
Provides: PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc., doc. Mgr. Rastislav Feč, PhD., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., PaedDr. Milena Švedová, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Lucia Kršňáková, PhD., Mgr. Dávid Kaško		
Date of last modification: 03.05.2015		
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.		

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:		
Notes:		
Course assessment Total number of assessed students: 7437		
abs	n	neabs
85.03	10.93	4.03
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., Mgr. Peter Bakalár, PhD., PaedDr. Milena Švedová, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Lucia Kršňáková, PhD., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD.		
Date of last modification: 03.05.2015		
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.		

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:		
Notes:		
Course assessment Total number of assessed students: 4650		
abs	n	neabs
89.63	4.71	5.66
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Lucia Kršňáková, PhD., Mgr. Dávid Kaško		
Date of last modification: 03.05.2015		
Approved: doc. RNDr. Vladimír Zeleňák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.		

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:		
Notes:		
Course assessment Total number of assessed students: 3884		
abs	n	neabs
85.79	6.77	7.44
Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Lucia Kršňáková, PhD., Mgr. Dávid Kaško, Mgr. Aurel Zelko, PhD., Mgr. Dana Dračková, PhD.		
Date of last modification: 03.05.2015		
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/MUSU/15		Course name: Structure determination - spectroscopic methods			
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: 6.					
Course level: I.					
Prerequisites: ÚCHV/ACHU/03 and ÚCHV/ANCHU/03 and ÚCHV/OCHU/03					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Fundamentals of molecular spectroscopy and magnetic properties study, as powerful tools for structure determination in chemistry. Those are ultraviolet, visible, infrared and Raman spectroscopy, mass spectrometry and methods based on magnetic resonance (¹ H NMR, ¹³ C NMR).					
Recommended literature: L.G.Wade,Jr.: Organic Chemistry. Prentice Hall International, Inc. Englewood Cliffs, New Yersey 1995.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 23					
A	B	C	D	E	FX
4.35	47.83	34.78	13.04	0.0	0.0
Provides: doc. RNDr. Ján Imrich, CSc., RNDr. Monika Tvrdoňová, PhD., RNDr. Juraj Kuchár, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DGS/15	Course name: Students` Digital Literacy
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.	
Prerequisites:	
Conditions for course completion: continuous assessment and final project	
Learning outcomes: To acquire an overview of the current possibilities of digital technology to develop skills and competencies with emphasis on the area of communication, social interaction and personal. To acquire basic digital skills for working with advanced technologies (mobile phone, tablet, laptop, social media, online webtechnologies). To understand the value of existing advanced technologies for better and more effective learning, work and active life in higher education, lifelong learning and further career prospects.	
Brief outline of the course: Introduction to the problems of current, commonly available digital technology. Tools for access to online information source (mobile applications for access to information systems, databases, data books). Tools for collecting, generating direct information and data and its subsequent analysis and visualization. Tools for providing and sharing of electronic content (cloud technology - Google Drive, Youtube, Google+, Skydrive, Dropbox). Tools for communication, discussion and collaborative activities. Legal work with digital technologies and resources, plagiarism, critical evaluation of digital resources. Security, privacy, digital ethics and etiquette, digital citizenship.	
Recommended literature: 1. Bruff, D. (2009). Teaching with classroom response systems: Creating active learning environments. San Francisco: Jossey-Bass. 2. Byrne, R. (2012). Google Drive and Docs for Teachers. Free Tech for Teachers. 3. Kawasaki, G. (2012). What the Plus! Google+ for the Rest of Us. Amazon igital Services. 4. Kolb, L. (2011). Cell Phones in the Classroom: A Practical Guide for Educators. International Society for Technology in Education.	
Course language: Slovak	
Notes:	

Course assessment	
Total number of assessed students: 19	
abs	n
100.0	0.0
Provides: doc. RNDr. Stanislav Lukáč, PhD., doc. RNDr. Jozef Hanč, PhD., doc. RNDr. Ľubomír Šnajder, PhD.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚCHV/ SVK/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 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: 28					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides:					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ SVG/04		Course name: Students scientific conference of geography			
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: 6.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: After choosing a topic suggested by supervisors implying a geographical problem, the students will work on the topic, write a thesis and defense it before the committee.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 145					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., prof. RNDr. Peter Spišiak, CSc., RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Marián Kulla, PhD., Ing. Katarína Bónová, PhD., RNDr. Stela Csachová, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

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: 36 Per study period: 504 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:	
Notes:	
Course assessment Total number of assessed students: 92	
abs	n
35.87	64.13
Provides: Mgr. Peter Bakalár, PhD.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

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: 36 Per study period: 504 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:	
Notes:	
Course assessment Total number of assessed students: 251	
abs	n
43.82	56.18
Provides: Mgr. Marek Valanský, MUDr. Peter Dombrovský	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/TVE/08		Course name: Theory of Education			
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., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 201					
A	B	C	D	E	FX
23.38	32.34	28.36	9.45	1.49	4.98
Provides: PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Boberová, PhD., Mgr. Stanislava Marosi, PhD.					
Date of last modification: 03.05.2015					
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ ZKLS//13	Course name: Winter Ski Training Course
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 36 Per study period: 504 Course method: present	
Number of 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:	
Notes:	
Course assessment Total number of assessed students: 81	
abs	n
32.1	67.9
Provides: PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc.	
Date of last modification: 03.05.2015	
Approved: doc. RNDr. Vladimír Zelenák, PhD., doc. RNDr. Zdenko Hochmuth, CSc.	