

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 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, t.j. povolený je 1 opravný test	
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 až pokročilej úrovni ovládania jazyka (B2/C1 podľa Spoločného európskeho referenčného rámca pre jazyky). Predmet kladie dôraz na používanie akademickej 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: 292					
A	B	C	D	E	FX
29.11	22.26	16.1	11.3	8.22	13.01
Provides: PaedDr. Gabriela Bednáriková					
Date of last modification: 06.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ FZ1/10		Course name: Animal Physiology			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 3 Per study period: 42 / 42 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites: ÚBEV/HIS1/03 or ÚBEV/HISE1/04 or ÚBEV/HIS1/15 or ÚBEV/HISE1/15					
Conditions for course completion: Written testing from practicals and oral examination					
Learning outcomes: To provide students with basic knowledge about physiological processes in organisms of animals and man.					
Brief outline of the course: The physiology of blood and hemopoietic organs. Physiology of respiration. Heart and circulatory physiology. Physiology of the gastrointestinal tract. The functions of liver. Energetic metabolism and physiology of nutrition. Water and mineral household of the organism. Physiology of the endocrine secretion. Physiology of reproduction. Physiology of excretion. General neurophysiology. Functions of neurons and neuronal networks. Sensory and motoric functions of CNS. Associative functions of CNS. Functions of the vegetative nervous system. Physiology of muscle contraction and active motion. Work physiology. Sensory physiology					
Recommended literature: Ganong, W. F.: Review of medical physiology. Prentice-Hall, Appleton & Langer, 1993 Varder, A. J., Sherman, J. H., Luciano, D. S.: The mechanisms of body functions, McGraw-Hill, 1990 Schmidt, R. F., Thews, G.: Human Physiology, Springer-Verlag, 1989 R.W.Hill, R.Wyse, M.Anderson : Animal Physiology, Sinauer Assoc., 2008					
Course language:					
Notes:					
Course assessment Total number of assessed students: 960					
A	B	C	D	E	FX
8.96	14.27	21.46	24.38	23.65	7.29

Provides: doc. RNDr. Monika Kassayová, CSc., prof. RNDr. Beňadik Šmajda, CSc., RNDr. Bianka Bojková, PhD., RNDr. Vlasta Demečková, PhD., RNDr. Peter Orendáš, PhD., RNDr. Terézia Kisková, PhD., Mgr. Adriana Hižňanová
Date of last modification: 13.02.2014
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/AFS/05		Course name: Antique Philosophy and Present Times			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 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: 30					
A	B	C	D	E	FX
83.33	6.67	6.67	0.0	3.33	0.0
Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof., Doc. PhDr. Peter Nezník, CSc.					
Date of last modification: 26.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ 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: 2	
abs	n
100.0	0.0
Provides:	
Date of last modification: 17.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ ZP2a/04	Course name: Bachelor Thesis
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: 59	
abs	n
100.0	0.0
Provides: doc. RNDr. Rastislav Varga, DrSc.	
Date of last modification: 18.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ ZP2b/04	Course name: Bachelor Thesis
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 6	
Recommended semester/trimester of the course: 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: 57	
abs	n
100.0	0.0
Provides: doc. RNDr. Rastislav Varga, DrSc.	
Date of last modification: 18.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/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: ((ÚBEV/CYT1/15 or ÚBEV/CYT1/15) and ÚBEV/GE1/10 and (ÚBEV/MOB1/03 or ÚBEV/MOB1/15)) or ((ÚBEV/FZ1/10 and (ÚBEV/HIS1/03 or ÚBEV/HIS1/15) and ÚBEV/ZO1/03 and ÚBEV/ZOO1/03)) or (ÚBEV/BO1/03 and ÚBEV/BOT1/03 and ÚBEV/FR1/10)					
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:					
Date of last modification: 17.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ ZPa/04	Course name: Bachelor Work
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: 143	
abs	n
100.0	0.0
Provides:	
Date of last modification: 13.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ ZPb/04	Course name: Bachelor Work
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 6	
Recommended semester/trimester of the course: 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: 141	
abs	n
100.0	0.0
Provides:	
Date of last modification: 13.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ZAC2/10	Course name: Basic Chemistry
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 6	
Recommended semester/trimester of the course: 3.	
Course level: I.	
Prerequisites:	
Conditions for course completion: inorganic part: one test in 6th week; 50 points. organic part: one test in 12th week; 50 points. At least 50% of points required from both. Terminal examination by written form, 100 points; 50 points from inorganic part and 50 points from organic parts.	
Learning outcomes: The main goal of this subject is to provide a basic overview of inorganic and organic chemistry for biology students.	
Brief outline of the course: Introduction to general and inorganic chemistry. Periodic systems of elements. Atomic structure. Chemical bonds. Relationship between structure and properties of substances. Solutions. Transition and non transition elements and their compounds. Coordination and biocoordination compounds. Elements essential for living organisms and their function. Biometals. Biominerals. Introduction to organic chemistry. Saturated and unsaturated hydrocarbons and their derivatives. Heterocyclic compounds. Carbohydrates. Lipids. Aminoacids and proteins. Enzyms and vitamins. Nucleic acids. Metabolism and energy.	
Recommended literature: 1. Caret C. R., Denniston K.J., Topping J. J.: Principles and Applications of Inorganic, Organic and Biological Chemistry. WCB, Boston 1997. 2. R.Chang: Chemistry, McGRAW-HILL,Inc., New York 1991. 3. K. C. Timberlake: Organic and Biological Chemistry, Structure of Life. Benjamin Cummings Publishing Company, Inc., San Francisco 2002.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 976					
A	B	C	D	E	FX
20.39	26.54	25.51	16.8	10.14	0.61
Provides: doc. RNDr. Zuzana Vargová, Ph.D., doc. RNDr. Mária Reháková, CSc., RNDr. Mária Vilková, PhD.					
Date of last modification: 03.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BBIO/03		Course name: Biology			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 0					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ÚBEV/FZ1/10 and ÚBEV/FR1/10 and ÚBEV/GE1/10					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 347					
A	B	C	D	E	FX
19.31	22.77	21.04	18.73	14.41	3.75
Provides:					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BSB/15		Course name: Biology			
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: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides:					
Date of last modification: 18.03.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 1069					
A	B	C	D	E	FX
36.3	23.48	16.0	15.9	7.86	0.47
Provides: doc. RNDr. Monika Kassayová, CSc.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/BS1/03		Course name: Biostatistics			
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: 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Recognition. Recognition.					
Learning outcomes: To provide the students with knowledge on basic principles of statistic methods used in biology and their scope of application					
Brief outline of the course: Sources and theoretical background of biostatistics. Basic principles of the probability theory. Descriptive statistics: variables, measures of mean value and variability of data. Theoretical and empirical distributions. Experimental sampling from normal distributions. Testing of hypotheses. One-way and multiple analysis of variance. Tests for multiple comparisons. Regression analysis. Correlations. Non-parametrical methods. Time series. Analysis of quantitative data.					
Recommended literature: Hassard, T. H.: Understanding biostatistics. Mosby Year Book, 1991 Snedecor, G.W., Cochran, W.G.: Statistical methods. The Iowa state university, Ames, 1972. R.Forthofer, E.S.Lee, M.Hernandez: Biostatistics. Elsevier, Amsterdam..., 2007					
Course language:					
Notes:					
Course assessment Total number of assessed students: 137					
A	B	C	D	E	FX
2.19	8.76	17.52	17.52	35.77	18.25
Provides: prof. RNDr. Beňadik Šmajda, CSc.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BO1/15		Course name: Botany I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: Introduction to biology of lower plants.					
Brief outline of the course: Morphology, cytology, ecology, evolution and taxonomy of all main groups of lower plants. Cyanobacteria and algae (Cyanophyta, Prochlorophyta, Glaucophyta, Rhodophyta, Heterocontophyta, Haptophyta, Cryptophyta, Dinophyta, Euglenophyta, Chlorarachniophyta, Chlorophyta). Slime moulds (Plasmodiophoromycota, Dictyosteliomycota, Acrasiomycota, Labyrinthulomycota). Fungi (Oomycota, Hyphochytriomycota, Chytridiomycota, Zygomycota, Ascomycota, Basidiomycota). Lichens. Bryophytes. Literature: Deacon, J.W. (1998) Modern Mycology. Blackwell Science Ltd.					
Recommended literature: Bačkor, M.: Základy systému nižších rastlín I. (sinice, riasy a slizovky). UPJŠ, Košice 2002; Deacon, J.W. (1998) Modern Mycology. Blackwell Science Ltd. Van den Hoek, C. a kol. 1995: Algae, an introduction to phycology, Záhorovská E. a kol.: Systém a evolúcia nižších rastlín. UK Bratislava 1998					
Course language:					
Notes:					
Course assessment Total number of assessed students: 131					
A	B	C	D	E	FX
23.66	16.03	25.19	19.85	10.69	4.58
Provides: prof. RNDr. Martin Bačkor, DrSc., RNDr. Michal Goga					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BO1/03		Course name: Botany I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 3., 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: Introduction to biology of lower plants.					
Brief outline of the course: Morphology, cytology, ecology, evolution and taxonomy of all main groups of lower plants. Cyanobacteria and algae (Cyanophyta, Prochlorophyta, Glaucophyta, Rhodophyta, Heterocontophyta, Haptophyta, Cryptophyta, Dinophyta, Euglenophyta, Chlorarachniophyta, Chlorophyta). Slime moulds (Plasmodiophoromycota, Dictyosteliomycota, Acrasiomycota, Labyrinthulomycota). Fungi (Oomycota, Hyphochytriomycota, Chytridiomycota, Zygomycota, Ascomycota, Basidiomycota). Lichens. Bryophytes. Literature: Deacon, J.W. (1998) Modern Mycology. Blackwell Science Ltd.					
Recommended literature: Bačkor, M.: Základy systému nižších rastlín I. (sinice, riasy a slizovky). UPJŠ, Košice 2002; Deacon, J.W. (1998) Modern Mycology. Blackwell Science Ltd. Van den Hoek, C. a kol. 1995: Algae, an introduction to phycology, Záhorovská E. a kol.: Systém a evolúcia nižších rastlín. UK Bratislava 1998					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1407					
A	B	C	D	E	FX
12.72	17.91	25.3	21.32	19.69	3.06
Provides: prof. RNDr. Martin Bačkor, DrSc., RNDr. Michal Goga					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ BOT1/15	Course name: Botany II
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: 4	
Recommended semester/trimester of the course: 2., 4.	
Course level: I.	
Prerequisites: ÚBEV/TCB1/03	
Conditions for course completion: Practical and theoretical exam.	
Learning outcomes: To obtain of survey in knowledge and methods in systematics of tracheophytes.	
Brief outline of the course: History and present time of plant systematics. Approaches to plant classification. Principles of cladistics and molecular taxonomy. Tracheophytes, clades of lycophytes, ferns and allies. Seed plants. Gymnosperms and their evolution: cycads, ginkgos, conifers, gnetophytes. Angiosperms. Evolution and general description. Basal clades and Magnoliid clade. Monocots. "Basal tricolpates" and Caryophyllid clade. Rosid and asterid clades of tricolpates. Practices are devoted to study of the most important families of tracheophytes. Fossil evidence of ferns and allies from Palaeozoic age. Tropical a subtropical flora. Ferns. Practical study of conifers. Selected families of angiosperms. (<i>Magnoliaceae, Araceae, Liliaceae, Amaryllidaceae, Cyperaceae, Poaceae, Ranunculaceae, Papaveraceae, Caryophyllaceae, Euphorbiaceae, Violaceae, Fabaceae, Rosaceae, Betulaceae, Brassicaceae, Boraginaceae, Plantaginaceae, Lamiaceae, Apiaceae, Asteraceae</i>). Study of other seed plants, plant identification according to key.	
Recommended literature: Mártonfi P.: Systematika cievnatých rastlín, 2. vydanie. - ES UPJŠ, Košice, 2006. Mártonfi P.: Systematika cievnatých rastlín. - ES UPJŠ, Košice, 2003. Judd W. S., Campbell Ch. S., Kellogg E. A. & Stevens P. F., Donoghue M. J.: Plant Systematics. A phylogenetic Approach, 2nd ed. - Sinauer Associates, Sunderland, 2002. Dostál J., Červenka M.: Veľký kľúč na určovanie rastlín I. a II. - SPN, Bratislava, 1991 a 1992.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 156					
A	B	C	D	E	FX
16.67	14.74	19.23	18.59	17.31	13.46
Provides: Mgr. Vladislav Kolarčík, PhD.					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ BOT1/03	Course name: Botany II
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., 4., 6.	
Course level: I., II.	
Prerequisites: ÚBEV/TCB1/03	
Conditions for course completion: Practical and theoretical exam.	
Learning outcomes: To obtain of survey in knowledge and methods in systematics of tracheophytes.	
Brief outline of the course: History and present time of plant systematics. Approaches to plant classification. Principles of cladistics and molecular taxonomy. Tracheophytes, clades of lycophytes, ferns and allies. Seed plants. Gymnosperms and their evolution: cycads, ginkgos, conifers, gnetophytes. Angiosperms. Evolution and general description. Basal clades and Magnoliid clade. Monocots. "Basal tricolpates" and Caryophyllid clade. Rosid and asterid clades of tricolpates. Practices are devoted to study of the most important families of tracheophytes. Fossil evidence of ferns and allies from Palaeozoic age. Tropical a subtropical flora. Ferns. Practical study of conifers. Selected families of angiosperms. (<i>Magnoliaceae, Araceae, Liliaceae, Amaryllidaceae, Cyperaceae, Poaceae, Ranunculaceae, Papaveraceae, Caryophyllaceae, Euphorbiaceae, Violaceae, Fabaceae, Rosaceae, Betulaceae, Brassicaceae, Boraginaceae, Plantaginaceae, Lamiaceae, Apiaceae, Asteraceae</i>). Study of other seed plants, plant identification according to key.	
Recommended literature: Mártonfi P.: Systematika cievnatých rastlín, 2. vydanie. - ES UPJŠ, Košice, 2006. Mártonfi P.: Systematika cievnatých rastlín. - ES UPJŠ, Košice, 2003. Judd W. S., Campbell Ch. S., Kellogg E. A. & Stevens P. F., Donoghue M. J.: Plant Systematics. A phylogenetic Approach, 2nd ed. - Sinauer Associates, Sunderland, 2002. Dostál J., Červenka M.: Veľký kľúč na určovanie rastlín I. a II. - SPN, Bratislava, 1991 a 1992.	
Course language:	
Notes:	

Course assessment					
Total number of assessed students: 1176					
A	B	C	D	E	FX
10.46	11.65	17.26	20.24	24.06	16.33
Provides: prof. RNDr. Pavol Mártonfi, PhD., Mgr. Vladislav Kolarčík, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/ NJKK/07		Course name: Communication Competence in the 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: 42					
A	B	C	D	E	FX
57.14	14.29	7.14	4.76	14.29	2.38
Provides: Mgr. Eva Černáková, PhD.					
Date of last modification: 05.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: ontroľný písomný test, aktivita na hodine záverečný písomný test stupnica hodnotenia A 93-100, B 86 - 92, C 79-85, D 72-78, E 65-71, FX menej ako 64 Povolené max. 2 absencie počas semestra predmet končí hodnotením, možnosť jedného opravného testu	
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: 174

A	B	C	D	E	FX
36.78	22.41	18.39	9.77	8.05	4.6

Provides: PaedDr. Gabriela Bednáriková, Mgr. Silvia Marcinová, PhD.

Date of last modification: 06.02.2014

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

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, možnosť jedného opravného testu	
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: 06.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ PMZ/10		Course name: Comparative Animal Morphology			
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: 1., 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Lectures and practical exercises, original drawing of some parts of animal body or it derivatives, examination.					
Learning outcomes:					
Brief outline of the course:					
Recommended literature: Kardong, K. V., 2002: Vertebrates. Comparative anatomy, function, evolution. 3rd ed., Mc-Graw-Hill, New York. Pough, F. H., Janis, Ch. M., Heiser, J. B., 2008: Vertebrate Life. Prentice Hall, Inc., 752 pp. 8th edition. Ruppert, E. E., Fox, R. S., & Barnes, R. D., 2004: Invertebrate zoology: a functional evolutionary approach. Belmont, CA: Thomas-Brooks/Cole.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1405					
A	B	C	D	E	FX
13.88	16.87	25.2	23.35	14.23	6.48
Provides: RNDr. Andrej Mock, PhD., RNDr. Alexander Čanády, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ PPFM/08		Course name: Computer-Based Physical Measurement			
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: active participation at all labworks written laboratory records with data analysis					
Learning outcomes: Students is able to measure physical quantities and gains skills important for measuring and data processing with the help of computer. The result is deeper conceptual understanding of physical phenomena involved in the labworks that is connected mainly with the content of courses General Physics I,II,III.					
Brief outline of the course: The content of the course involves labworks in physics aimed at selected problems of General Physics I,II,II. Student learns about different methods of measurement of physical quantities, he gains skills concerning measurement and data processing with the help of computer. The set of labworks involves analysis of different phenomena followed by the data processing and written report.					
Recommended literature: 1. Halliday, Hajko, V., Daniel-Szabó, J.: Základy fyziky, Veda Bratislava 1983 2. Veis, Š., Maďar, J., Martišovits, V.: Všeobecná fyzika 1, Alfa, Bratislava, 1987 3. Hlavička, A. a kol.: Fyzika pre pedagogické fakulty, SPN Praha, 1971 4. Halliday, D., Resnick, R., Walker, J.: Fyzika, part1-4,VUT Brno, 2000					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 37					
A	B	C	D	E	FX
40.54	40.54	18.92	0.0	0.0	0.0
Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD.					

Date of last modification: 18.02.2014
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ CYT1/15		Course name: Cytology			
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: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Oral examination					
Learning outcomes: To provide the students with knowledge of basic principles of cell microscopic and submicroscopic structure and function.					
Brief outline of the course: Levels of living system organization. Characteristics and comparison of prokaryotic and eukaryotic plant and animal cells. Microscopic, submicroscopic and molecular structure and function of individual cell components. Nucleus and cell division.					
Recommended literature: Alberts, B., Bray, D., Lewis, J. et al.: Molecular Biology of the Cell. Garland Publishing Inc., New York, London, 1994					
Course language:					
Notes:					
Course assessment Total number of assessed students: 3112					
A	B	C	D	E	FX
5.21	14.52	23.88	23.52	27.57	5.3
Provides: doc. RNDr. Jaromír Mikeš, PhD., RNDr. Rastislav Jendželovský, PhD., RNDr. Barbora Kuchárová, PhD., RNDr. Beáta Kaľatová, Mgr. Katarína Gyurászová, RNDr. Lucia Hil'ovská, PhD.					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/OZP/05		Course name: Defence of Bachelor Thesis			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 0					
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: 110					
A	B	C	D	E	FX
88.18	9.09	2.73	0.0	0.0	0.0
Provides:					
Date of last modification: 08.08.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/OZPM/07		Course name: Defence of Bachelor Thesis			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 0					
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: 124					
A	B	C	D	E	FX
52.42	25.81	16.13	3.23	1.61	0.81
Provides:					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ SL1/05		Course name: Education-related 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: 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: 337					
A	B	C	D	E	FX
39.17	31.16	16.91	4.15	1.78	6.82
Provides: PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Nováková, PhD.					
Date of last modification: 04.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ELP1/01		Course name: Electronics Practical			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites: ÚFV/ELE1/07					
Conditions for course completion: Debate with students during practice, trial preparation and processing of theoretical and experimental results of their defense. Summary evaluation of student activities while working on set topics of study practices.					
Learning outcomes: Practical work of students in the design, construction and properties of the measurements of electronic circuits and interpretation of the results obtained to verify and consolidate the theoretical knowledge acquired in lectures on the subject Electronics.					
Brief outline of the course: 1. Combinatorial logical circuits. 2. Logical memory circuits. 3. Logical sequence circuits. 4. Rectifiers, filters, stabilizers. 5. Amplifier with bipolar transistor. 6. Stabilized DC power supplies. 7. Generators of harmonic signals. 8. Operational amplifiers and operational network interfaces. 9. Digital-to-analog converters. 10. Analog-to-digital converters. 11 Reserve.					
Recommended literature: 1. Delaney C.F.G.: Electronics for the Physicist with Applications. John Willey & Sons, New York, 1980. 2. Zbar P.B., Malvino A.P., Miller M.A.: Basic Electronics: a Text-Lab Manual. Macmillan/McGraw – Hill, New York, 1994.					
Course language: slovak or english					
Notes:					
Course assessment Total number of assessed students: 26					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Rastislav Varga, DrSc., RNDr. Erik Čížmár, PhD., Mgr. Vladimír Komanický, PhD.					

Date of last modification: 18.02.2014
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ ELE1/07		Course name: Electronics			
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: ÚFV/VF1b/03					
Conditions for course completion: Exam					
Learning outcomes: To explain physical principles of classical electronic components and systems and technologies of their realization. To perform analysis of properties and functions of basic electronic elements, electronic circuits and information transmission and processing systems. To introduce student into basic elements and devices in area of nanoelectronics and to explain methods of their fabrication and principles of their functioning.					
Brief outline of the course: Structure, properties and physical principles of the activity of selected electronic elements. Analysis of functions and properties of basic analog and digital electronic circuits. Nanoelectronics and selected building components of nanoelectronics: graphene, carbon nanotubes, selected types of nanodevices their properties, fabrication and integration to functional systems.					
Recommended literature: 1. Brown P.B., Frantz G.N., Moraff H.: Electronics for the Modern Scientist. Elsevier, 1982. 2. Delaney C.F.G.: Electronics for the Physicist with Applications. John Willey & Sons, 1980. 3. Wolt E. L.: Quantum Nanoelectronics, An introduction to electronic nanotechnology and quantum computing, Wiley-VCh, 2009					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 257					
A	B	C	D	E	FX
30.35	27.24	27.63	7.78	2.72	4.28
Provides: Mgr. Vladimír Komanický, PhD.					
Date of last modification: 18.02.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

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: test na slovnú zásobu, ústna prezentácia, záverečný písomný test, účasť na seminároch (max. 2 absencie) stupnica hodnotenia: A 93-100, B 86-92, C 79-85, D 72-78, E 65-71, FX 64 a menej	
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 nomenklatúry

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
Nomenklatúra
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: 1860					
A	B	C	D	E	FX
31.72	25.54	18.28	11.94	9.52	3.01
Provides: PhDr. Helena Petruňová, CSc., PaedDr. Gabriela Bednáriková, Mgr. Marianna Škultétyová, Mgr. Silvia Marcinová, PhD.					
Date of last modification: 06.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ ZSKP/05		Course name: Essentials of School Pedagogy			
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: 2					
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: 268					
A	B	C	D	E	FX
11.19	16.42	26.49	19.03	5.6	21.27
Provides: PaedDr. Renáta Orosová, PhD.					
Date of last modification: 04.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ TCZ/03	Course name: Fieldwork from zoology
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 5d Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 4., 6.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes: Practical observation of morphology of vertebrates.	
Brief outline of the course: Systematic and phylogenetic relationships of vertebrate. Review of important groups of fishes, amphibians, reptiles, birds and mammals - observation, and laboratory work.	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 469	
abs	n
98.93	1.07
Provides: RNDr. Peter Ľuptáčík, PhD., doc. RNDr. Ľubomír Panigaj, CSc., RNDr. Andrej Mock, PhD.	
Date of last modification: 13.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚBEV/ TCB1/03	Course name: Fieldworks from Botany
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 5d Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 2., 4., 6.	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes: Study of methods for identification and determination of common central-european plants.	
Brief outline of the course: Plant identification in different habitats. Plant determination. Floristic records.	
Recommended literature: Dostál J., Červenka M.: Veľký kľúč na určovanie rastlín I. a II. - Veda, Bratislava 1991 a 1992. Kubát K. (ed.): Kľíč ke květeně České republiky. - Academia, Praha, 2002. Marhold K. a Hindák F. (eds.): Zoznam nižších a vyšších rastlín Slovenska. Checklist of non-vascular and vascular plants of Slovakia. - Veda, Bratislava 1998. Krejča J. (ilustr.): Veľká kniha rastlín. - Bratislava (various editions).	
Course language:	
Notes:	
Course assessment Total number of assessed students: 729	
abs	n
99.86	0.14
Provides: prof. RNDr. Pavol Mártonfi, PhD., prof. RNDr. Martin Bačkor, DrSc., Mgr. Vladislav Kolarčík, PhD.	
Date of last modification: 13.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ VBF1/08	Course name: General Biophysics I
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: 4	
Recommended semester/trimester of the course: 3., 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Exam.	
Learning outcomes: To provide information about the object, significance and role of biophysics in science. The main emphasis will be given on the understanding of the principles determining the structure and function of the most important biological structures (nucleic acids, proteins, biomembranes) as well as on the thermodynamics and kinetics of selected chemical and biophysical processes.	
Brief outline of the course: The definition of biophysics and its role in the science. Intra- and inter-molecular interactions in biological systems. Function and structure of the important biomacromolecules (nucleic acids, proteins, biomembranes, sugars). Conformational transitions in biopolymers: helix-coil transition in DNA, denaturation of proteins, phase transitions in biomembranes. Thermodynamics of biological processes. Gibbs energy and chemical equilibrium, chemical potential, binding constants of the ligand-macromolecule interactions, cooperativity of the binding between biological important molecules, membrane potential. Kinetics of the chemical and biophysical processes. The principles of chemical kinetics, enzymatic reactions, inhibition of the enzymes, membrane transport, introduction to the pharmacokinetics. Cell biophysics. The basic bioenergetic processes, oxidative phosphorylation, photosynthesis. Mechanisms of regulations and control processes in cells-the basic principles. Medicinal biophysics. Biophysical principles of selected diagnostic and therapeutical methods. Radiation and environmental biophysics. The influence of physico-chemical factors of the environment on the living systems.	
Recommended literature: 1. M. B. Jackson, Molecular and cellular biophysics, Cambridge University Press, 2006. 2. M. Daune, Molecular biophysics - Structures in motion, Oxford University Press, 2004. 3. R. Glaser, Biophysics, Springer Verlag, 2001. 4. M.V. Volkenštein, Biofizika, Nauka, Moskva 1988. 5. W.Hoppe and W. Lohmann, Biophysics, Springer Verlag, 1988. 6. D.G. Nichols and S.J. Ferguson, Bioenergetics 3, Academic Press, Elsevier Science Ltd., 2002. 7. D. T. Haynie, Biological thermodynamics, Cambridge University Press, 2001.	

Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 123					
A	B	C	D	E	FX
19.51	28.46	24.39	16.26	11.38	0.0
Provides: doc. Mgr. Daniel Jancura, PhD.					
Date of last modification: 10.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ VB1/01		Course name: General botany			
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: 2.					
Course level: I.					
Prerequisites: ÚBEV/CYT1/02 or ÚBEV/CYT1/15					
Conditions for course completion:					
Learning outcomes: This subject enables to understand the structure and function of plant cells, tissues and organs and to enhance student's ability to describe the biological role of plants for life on earth.					
Brief outline of the course: The structure and function of plant cells and tissues. Plant organs, their structure, function, shape and organization. Plant reproduction and grounding in embryology. Basic information and terms that are necessary for understanding of relationship between internal structure and functions of organs and functions plant organism en bloc.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1423					
A	B	C	D	E	FX
20.59	20.31	26.35	18.27	10.26	4.22
Provides: prof. RNDr. Pavol Mártonfi, PhD., Mgr. Vladislav Kolarčík, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ VF1a/12	Course name: General Physics I
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:	
Conditions for course completion: Monitoring tests during the calculus lessons 1. in the 6th week 2. in the 12th week Final assessment is based on the results of : - oral examination assessment of the calculus lessons (written tests, overall performance during the lessons)	
Learning outcomes: Basic knowledge about the mechanics, molecular physics and thermodynamics.	
Brief outline of the course: Basic knowledge of the calculus, vector algebra. Standards and units. Kinematics. Dynamics. The principle of relativity in the classical mechanics. Gravitation. Mechanics of many-particle systems. The motion of rigid bodies. Deformation, elasticity. Mechanics of fluids and gases. Laws of ideal gases. Kinetic theory. The thermodynamic laws. Statistical character of the second law. Entropy. Molecular phenomena in liquids and solids. Phase transitions.	
Recommended literature: Hajko V., Daniel-Szabó J.: Základy fyziky, VEDA, Bratislava 1983. Veis Š., Maďar J., Martišovits V.: Všeobecná fyzika I., Mechanika a molekulová fyzika, ALFA Bratislava, 1987. Fuka J., Šíroká M.: Obecná fyzika I / skriptum /, PF Univ. Palackého, Olomouc 1983. Hlavička A., a kol.: Fyzika pre pedagogické fakulty, SPN, Praha 1971. Hajko V., a kol.: Fyzika v príkladoch, ALFA Bratislava 1983. Ilkovič D.: Fyzika, SVTL Bratislava, 1962. Slaviček V., Wagner J.: Fyzika pro chemiky, SNTL Praha 1971. Krempaský J.: Fyzika, ALFA Bratislava 1982.	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 231					
A	B	C	D	E	FX
25.11	16.02	20.35	12.99	18.18	7.36
Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Alžbeta Orendáčová, DrSc., Doc. RNDr. Jozef Hanč, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/VF1b/03		Course name: General Physics II			
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: 2.					
Course level: I.					
Prerequisites: ÚFV/VF1a/07 or ÚFV/VF1a/12					
Conditions for course completion: Test. Oral examination.					
Learning outcomes: To obtain a general view on basic electric magnetic phenomena and ability to solve basic problems of this subject.					
Brief outline of the course: Electric field in the free space. Work of the forces in the electrostatic field. Electrostatic field and steady current. Current in electrolytes, semiconductors, gasses and vacuum. Thermoelectric effects. Magnetic field in the free space. The interaction of moving charges with the electric current. Quasi steady electric field. Electromagnetic induction. Energy of magnetic field. AC current and circuits with ac current. Multiphase AC current. Rotating magnetic field. Electric effects in the substances. Magnetic properties of the substances. Magnetic polarization. Diamagnetism and paramagnetism, Magnetic ordering. Ferromagnetism.					
Recommended literature: I. S. Grant, W.R. Phillips, Electromagnetism, John Wiley&Sons, Ltd, England, 1990					
Course language: english					
Notes:					
Course assessment Total number of assessed students: 278					
A	B	C	D	E	FX
32.01	15.47	16.55	11.87	12.23	11.87
Provides: prof. RNDr. Peter Kollár, DrSc., doc. RNDr. Adriana Zeleňáková, PhD., RNDr. Erik Čižmár, PhD.					
Date of last modification: 18.02.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/VF1c/12		Course name: General Physics III			
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: 3.					
Course level: I.					
Prerequisites: ÚFV/VF1b/03					
Conditions for course completion: Exam+ 2 succesfull test from seminars					
Learning outcomes: The objective is to acquaint the students with the basis of oscilations, waves and optics.					
Brief outline of the course: Undamped oscilations, Mathematical, Physical and Torsional pendulum, Damped oscilations, Fourier transformation, Forced oscilations. Waves, their generation, waves equation.Interference. Huyghens principle. Reflection, diffraction. Doppler effect. Waves speed in materials. Acoustics. Geometrical optics. Mirrors, lens. Fotometry. Light as electromagnetic wave. Dispersion, absorption, interference, diffraction, polarization. Photon's theory of light. Law of emision and absorption, Planck's law of radiation. Lasers.					
Recommended literature: 1. A. Hlavička et al., Fyzika pro pedagogické fakulty, SPN, 1971 2. R.P. Feynman et al., Feynmanove prednášky z Fyziky I,II,III, ALFA, 1985 3. D. Halliday et al.,Fyzika-Vysokoškolská učebnice obecné fyziky, VUTIUM, 2010 4. J. Fuka, B. Havelka, Optika a atómová fyzika, SPN,1961 5. A. Štrba, Všeobecná Fyzika 3 – Optika, ALFA, 1979					
Course language: slovak					
Notes:					
Course assessment Total number of assessed students: 95					
A	B	C	D	E	FX
32.63	25.26	25.26	12.63	4.21	0.0
Provides: doc. RNDr. Rastislav Varga, DrSc.					
Date of last modification: 18.02.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ VF1d/12	Course name: General Physics IV
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: 4.	
Course level: I.	
Prerequisites: ÚFV/VF1c/08 or ÚFV/VF1c/10 or ÚFV/VF1c/12	
Conditions for course completion: written tests exam	
Learning outcomes: Basic knowledge about the atomic structure and spectra and nuclei, and elementary particles. Basic experimental methods in nuclear physics and passage of nuclear radiation through media.	
Brief outline of the course: Wave character of particles. De Broglie waves. Experimental evidence for de Broglie waves. Structure and models of atoms. Atomic spectra. Magnetic properties of atoms. X-ray spectra. Basic characteristics of the atomic nuclei. Nuclear forces and models. Radioactivity. Applications of radioactivity. Nuclear reactions. Elementary particles, basic properties and classification. Types of interactions. Resonances. Cosmic rays. Passage of particles through matter. Detectors. Accelerators.	
Recommended literature: 1. Beiser A., Úvod do moderní fyziky, Praha, 1975. 2. Vanovič J.: Atómová fyzika, Bratislava, 1980. 3. Griffiths D. , Introduction to Elementary Particles, WILEY, 1987. 4. Úlehla I., Suk M., Trka Z.: Atómy, jadra, částice, Praha, 1990. 5. Síleš E., Martinská G.: Všeobecná fyzika IV, skriptá PF UPJŠ, 2. vydanie, Košice, 1992. 5. Hajko V. and team of authors, Physics in experiments, Bratislava, 1997. 6. Nosek D., Jádra a částice (Řešené příklady), Matfyzpress, MFF UK, Praha 2005, 7. Brandt S., The harvest of a century, Discoveries of modern physics in 100 episodes, Oxford, 2009.	
Course language: slovak and english	
Notes:	

Course assessment					
Total number of assessed students: 52					
A	B	C	D	E	FX
36.54	21.15	19.23	11.54	11.54	0.0
Provides: prof. RNDr. Stanislav Vokál, DrSc., RNDr. Janka Vrláková, PhD., RNDr. Adela Kravčáková, PhD.					
Date of last modification: 11.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ GE1/10		Course name: Genetics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 3 Per study period: 42 / 42 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚBEV/MB1/01 or ÚBEV/MOB1/03 or ÚBEV/MOB1/15					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1002					
A	B	C	D	E	FX
18.26	17.17	15.97	13.27	17.56	17.76
Provides: prof. RNDr. Eva Čellárová, DrSc., RNDr. Miroslav Soták, PhD., RNDr. Katarína Bruňáková, PhD., RNDr. Denisa Hrehorová, RNDr. Daniela Zubrická, PhD., RNDr. Anna Mišianiková, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/OJPV1/07		Course name: German Language for Specific Purposes - German in 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: 120					
A	B	C	D	E	FX
19.17	20.83	27.5	23.33	8.33	0.83
Provides: Mgr. Eva Černáková, PhD., Dr. rer. pol. Michaela Kováčová					
Date of last modification: 05.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/ NJKG/07		Course name: Grammar in the German Language Communication			
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: Dr. rer. pol. Michaela Kováčová					
Date of last modification: 05.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/HISE1/15		Course name: Histology			
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: 2.					
Course level: I.					
Prerequisites: ÚBEV/CYT1/02 or ÚBEV/CYT1/15					
Conditions for course completion: Oral examination					
Learning outcomes: To provide the students with knowledge of basic morphology of tissues of animals.					
Brief outline of the course: Epithelium and glands. Connective tissue. Cartilage. Bone. Muscle. Nervous Tissue. Blood and hemopoiesis. Circulatory system. Lymphoid system. Endocrine system. Integument. Respiratory system. Digestive system. Urinary system. Female reproductive system. Male reproductive system. Special senses.					
Recommended literature: Gartner, L.P., Hiatt, J.L.: Color Textbook of Histology. W.B. Saunders Company, Philadelphia, 1997 Juanqueira, L.C., Carneiro, J., Kelley, R.O.: Basic Histology. Prentice Hall International Inc., Apleton & Lange, 1992					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1472					
A	B	C	D	E	FX
17.6	12.36	15.08	13.04	26.63	15.29
Provides: doc. RNDr. Zuzana Daxnerová, CSc., RNDr. Juraj Ševc, PhD., RNDr. Anna Alexovič Matiašová, PhD., RNDr. Zuzana Gombalová					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/DF1/05		Course name: History of Philosophy and Philosophy of Education - Cultural and Socio-Anthropological Relations			
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:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 392					
A	B	C	D	E	FX
63.52	16.58	10.97	5.87	2.55	0.51
Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof., Doc. PhDr. Peter Nezník, CSc.					
Date of last modification: 26.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ ACL/03		Course name: Human Anatomy			
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: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Written examination					
Learning outcomes: Anatomic systems of man.					
Brief outline of the course: Anatomic terminology, skeleton and muscles, gastrointestinal system, respiratory system, circulatory and lymphatic system, urogenital system, sensory organs, nervous system, ontogenesis of man.					
Recommended literature: Kahle, W., Leonhardt, H., Platzer, W. : Color Atlas and Textbook of Human Anatomy in 3 Volumes : Volume 1 : Locomotor System, Volume 2: Internal Organs and Volume 3: Nervous System and Sensory Organs Thieme Medical Publishers, Inc. New York, 1993 Anne M. R. Agur : Grant's atlas of anatomy. Williams et Wilkins, USA, 1991					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1313					
A	B	C	D	E	FX
3.43	16.53	29.47	26.58	21.78	2.21
Provides: doc. MVDr. Mária Miklošová, PhD., MVDr. Diana Kúkeľová, Mgr. Diana Pacáková, MVDr. Mária Korpová					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/KDF/05		Course name: Chapters from History of Philosophy of 19th and 20th Centuries (General Introduction)			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 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: 10					
A	B	C	D	E	FX
50.0	20.0	10.0	0.0	10.0	10.0
Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof.					
Date of last modification: 26.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/ FVp/04		Course name: Chapters from Philosophy 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: 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: 3					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof.					
Date of last modification: 26.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB10/14	Course name: IB10 - Medzinárodný certifikát ECo-C	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB11/14	Course name: IB11 - Medzinárodný certifikát ECDL	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 14		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB12/14	Course name: IB12 - Používanie, administrácia a vývoj v systéme SAP	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 54		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB1/14	Course name: IB1 - Etika v biomedicínskych vedách pre zdravotnícku prax	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB2/14	Course name: IB2 - Právne minimum – súkromnoprávne aspekty	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB3/14	Course name: IB3 - Právne minimum – verejnoprávne aspekty	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB4/14	Course name: IB4 - Projektový manažment	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 20		
Recommended semester/trimester of the course:		
Course level: 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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB5/14	Course name: IB5 - Manažérska ekonomika	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB6/14	Course name: IB6 - Riešenie konfliktných a krízových situácií v školskej praxi	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/ IB7/14	Course name: IB7 - Štatistika pre prax	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB8/14	Course name: IB8 - Environmentálne aspekty záťaže životného prostredia	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 16		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: R UPJŠ/IB9/14	Course name: IB9 - Medzinárodný certifikát TOEFL	
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present		
Number of credits: 17		
Recommended semester/trimester of the course:		
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: 0		
abs	n	neabs
0.0	0.0	0.0
Provides:		
Date of last modification: 11.08.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/IH1/03		Course name: Idea Humanitas 1 (General Introduction)			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 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: 9					
A	B	C	D	E	FX
55.56	11.11	0.0	11.11	22.22	0.0
Provides: Doc. PhDr. Peter Nezník, CSc.					
Date of last modification: 26.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚINF/ IKTP/10		Course name: Information and Communication Technologies			
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: Text processing using a word processor. Processing and evaluation of information using a spreadsheet. Search, retrieval and exchange of information via the Internet. Creating presentations.					
Recommended literature: 1. Franců, M: Jak zvládnout testy ECDL. Praha : Computer Press. 2007. 160 s. ISBN 978-80-251-1485-8 2. Jančařík, A. et al.: S počítačem do Evropy – ECDL. 2. vydanie. Praha : Computer Press, 2007. 152 s. ISBN 80-251-1844-3 3. Kolektív autorov: Syllabus ECDL verzia 5.0. [on-line] [citované 9.2.2010]. Dostupné na internete: < http://www.ecdl.sk/buxus/docs//interne_informacie/Syllabus_V5.0/20090630ECDL-SyllabusV50_SK-V01_FIN.pdf > 4. Kalakay, R. et al: Informačné a komunikačné technológie - prezenčný kurz. [on-line] [citované 9.2.2010]. Dostupné na internete: < http://moodle.science.upjs.sk/course/view.php?id=90 >					
Course language:					
Notes:					
Course assessment Total number of assessed students: 970					
A	B	C	D	E	FX
66.8	17.63	6.91	3.51	1.75	3.4
Provides: Mgr. Alexander Szabari, PhD., RNDr. Jozef Studenovský, CSc., RNDr. Zuzana Bednárová, PhD., doc. Ing. Štefánia Gallová, CSc.					
Date of last modification: 03.02.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚINF/ IKTD/10		Course name: Information and Communication Technologies - distance learning			
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: Text processing using a word processor. Processing and evaluation of information using a spreadsheet. Search, retrieval and exchange of information via the Internet. Creating presentations.					
Recommended literature: 1. Franců, M: Jak zvládnout testy ECDL. Praha : Computer Press. 2007. 160 s. ISBN 978-80-251-1485-8 2. Jančařík, A. et al.: S počítačem do Evropy – ECDL. 2. vydanie. Praha : Computer Press, 2007. 152 s. ISBN 80-251-1844-3 3. Kolektív autorov: Syllabus ECDL verzia 5.0. [on-line] [citované 9.2.2010]. Dostupné na internete: < http://www.ecdl.sk/buxus/docs//interne_informacie/Syllabus_V5.0/20090630ECDL-SyllabusV50_SK-V01_FIN.pdf > 4. Kalakay, R. et al: Informačné a komunikačné technológie - prezenčný kurz. [on-line] [citované 9.2.2010]. Dostupné na internete: < http://moodle.science.upjs.sk/course/view.php?id=90 >					
Course language:					
Notes:					
Course assessment Total number of assessed students: 113					
A	B	C	D	E	FX
75.22	7.08	3.54	0.0	3.54	10.62
Provides: doc. Ing. Štefánia Gallová, CSc., RNDr. Jozef Studenovský, CSc., RNDr. Zuzana Bednárová, PhD.					
Date of last modification: 03.02.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ UVF/05	Course name: Introduction to General Physics
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: Active presentation during the lessons twice a year Solved assignments Positive results at two written tests	
Learning outcomes: Conceptual understanding of the key concepts of the topics of Mechanics and Molecular Physics gained with the help of problem solving, physical experiments and multimedial support that is inevitable precondition for the further study at University level. At the end of this course the student will be able to follow with the courses proceeding from the course General Physics I.	
Brief outline of the course: The subject is a supportive subject to the course General physics 1 - Mechanics and Molecular Physics. The content involves key concepts in mechanics and molecular physics with the help of school experiments, interactive multimedial teaching materials and physical tasks and problems. The aim is to help students to overcome difficulties connected with knowledge gained during the previous study towards the conceptual understanding of the University course content.	
Recommended literature: 1. Sutton, R.M., Demonstration Experiments in Physics, AAPT, 2003 2. Pizzo, J.: Interactive Physics demonstration, AAPT, 2001 3. Cunningham, J, Herr, N.: Hands on Physics Activities, Jossey-Bass A Wiley Imprint, 1994 4. Halliday D., Resnick R., Walker J.: Fyzika. Část 1- 5., Vysokoškolská učebnica fyziky, VUTIUM, Brno, 2000 5. Walker, J.: The Flying Circus of Physics with answers, John Wiley&Sons, 2005 6. Hajko, V., Daniel-Szabó, J. a kol. Fyzika v príkladoch, Alfa, 1983	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 188					
A	B	C	D	E	FX
38.3	16.49	23.4	13.83	7.45	0.53
Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., Doc. RNDr. Jozef Hanč, PhD., RNDr. Brigita Balogová					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ UVF2/07	Course name: Introduction to General Physics 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.	
Prerequisites:	
Conditions for course completion: Active presentations during the lessons twice a year Solved assignments Positive results at two written tests.	
Learning outcomes: Conceptual understanding of the key concepts of the topics of Electricity and Magnetism with the help of problem solving, physical experiments and multimedial support that is inevitable precondition for the further study at University level. At the end of the course the student will be able to follow with the courses, proceeding from the course General physics II.	
Brief outline of the course: The subject is a supportive subject to the course General Physics 2 - Electricity and Magnetism. The content involves key concepts of electricity and magnetism with the help of school experiments, interactive multimedial teaching materials and physical tasks and problems. The aim is to help students to overcome difficulties connected with knowledge gained during the previous study towards the conceptual understanding of the University course content.	
Recommended literature: 1. Sutton, R.M., Demonstration Experiments in Physics, AAPT, 2003 2. Pizzo, J.: Interactive Physics demonstration, AAPT, 2001 3. Cunningham, J, Herr, N.: Hands on Physics Activities, Jossey-Bass A Wiley Imprint, 1994 4. Halliday D., Resnick R., Walker J.: Fyzika. Část 1- 5., Vysokoškolská učebnica fyziky, VUTIUM, Brno, 2000 5. Walker, J.: The Flying Circus of Physics with answers, John Wiley&Sons, 2005	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 158					
A	B	C	D	E	FX
41.77	16.46	22.15	8.86	10.76	0.0
Provides: doc. RNDr. Zuzana Ješková, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ ZMF/07	Course name: Introduction to Mathematics for Physicists
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: two control tests during semester, solving of three sets of problems, active participation. Summary evaluation of active participation during semester, completed sets of problems and two tests	
Learning outcomes: The aim is the understanding and mastery of basic mathematical concepts and skills of the vector, differential and integral calculus and ordinary differential equations required for introductory physics course.	
Brief outline of the course: The course introduces basic mathematical background to general physics courses: Mechanics & Molecular Physics and Electricity & magnetism. The content deals with understanding the basic concepts of vector algebra and analysis, differential and integral calculus and differential equations. After the course student should be familiar with the concepts: vector, scalar, vector and scalar fields, the function of one variable, derivative, integral, differential equation; to be able to interpret these concepts in real phenomena and acquire basic mathematical skills related to these concepts in problems.	
Recommended literature: 1. Hughes-Hallet, D. et al, Applied Calculus, 4th ed., John Wiley & Sons, 2010 2. Stewart, J., Calculus: early transcendentals, 6th ed., Brooks Cole, 2008 3. Zel'dovič, J.B., Jaglom, I.M.: Higher Math for Beginners (Mostly Physicists and Engineers), Mir, Moskva, 1988	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 166					
A	B	C	D	E	FX
38.55	18.67	21.08	11.45	10.24	0.0
Provides: Doc. RNDr. Jozef Hanč, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 539	
abs	n
95.18	4.82
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 Zelenák, PhD., Doc. RNDr. Jozef Hanč, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Vladislav Kolarčík, PhD., RNDr. Janetta Nestorová-Dická, PhD.	
Date of last modification: 17.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ MTB/13	Course name: Mathematics for biologists
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: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes: Short introduction to mathematics, mathematical problem solving strategies and their applications to solving problems in biology and other sciences.	
Brief outline of the course: 1. Basic terms 2. Geometry in the plane (vectors, lines in the plane and their representations) 3. Systems of linear equations (linear equation and inequality, system of linear equations, Gaussian elimination) 4. Functions (monotonicity, local extrema, function composition, inverse function, elementary functions and their properties) 5. Combinatorics (binomial theorem, combinations and permutations without / with repetition, inclusion-exclusion principle) 6. Sequences and series (monotonicity and boundedness, recurrent sequence, geometric series) 7. Limit (limit of a sequence, limit of function, convergence, divergence, methods for computing limits, continuity) 8. Derivatives (sum, product, quotient and chain rule, derivatives of elementary functions, Taylor polynomial, analysis of functions) 9. Integrals (indefinite integral, integration methods: by substitution, by parts, by partial fractions; definite integral) 10. Ordinary differential equations (first order separable ODE, first order linear ODE)	
Recommended literature: E. Bohl, <i>Mathematik in der Biologie</i> , Springer, Berlin Heidelberg, 2006. D. Studenovská, T. Madaras, S. Mockovčiak: <i>Zbierka úloh z matematiky pre nematematické odbory</i> , UPJŠ 2006. D. Studenovská, T. Madaras: <i>Matematika pre nematematické odbory</i> , UPJŠ 2006.	
Course language: Slovak	
Notes:	

Course assessment					
Total number of assessed students: 274					
A	B	C	D	E	FX
6.93	8.76	14.96	24.09	31.39	13.87
Provides: RNDr. Igor Fabrici, Dr. rer. nat., Mgr. Timea Gábová					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MTFa/13		Course name: Mathematics I for physicists			
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: Two written tests and one homework with exercises from the whole semester. The final evaluation is given according to the results from the semester and in view of the results of the written final test.					
Learning outcomes: To obtain basic knowledge on functions of one variable and their properties; to be able to apply the theory in concrete exercises.					
Brief outline of the course: Functions, basic properties. Elementary functions. Continuous functions. Limits. Derivation and its geometric applications. Theorems about continuous functions. Behaviour of functions. Indefinite integrals, basic methods of integration. Definite integral and its applications.					
Recommended literature: S. Lang: A First Course in Calculus, Springer Verlag, 1998					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 304					
A	B	C	D	E	FX
7.57	8.22	13.82	19.41	30.26	20.72
Provides: doc. RNDr. Roman Soták, PhD.					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/MTFb/13		Course name: Mathematics II for physicists			
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: ÚMV/MTFa/13					
Conditions for course completion: Two written tests and one homework with excercises from the whole semester, final test. According to the results from the semester and in view of the results of the written final test.					
Learning outcomes: To develop acquired knowledge of mathematical analysis with knowledge on linear algebra and functions of more variables. To learn to solve basic types of differential equations and know how to use them to model real-world phenomena. To learn to solve problems about infinite series.					
Brief outline of the course: System of linear algebraic equations, determinants. Functions of more variables, continuity and limits, partial derivations, local extremes of functions of two variables. Some types of differential equations. Series, functional series, Taylor and MacLaurin series.					
Recommended literature: 1. S. Lang: A First Course in Calculus, Springer Verlag, 1998 2. Huťka V., Benko E., Ďurikovič V.: Matematika, Alfa, Bratislava 1991. 3. Došlá, Z.: Matematika pro chemiky, 1.díl. Masarykova univerzita, Brno, 2010.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 171					
A	B	C	D	E	FX
9.94	15.79	12.28	26.32	30.41	5.26
Provides: doc. RNDr. Stanislav Lukáč, PhD.					
Date of last modification: 14.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ SDF1/99		Course name: Methods of Data Processing in Physics			
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: Five tasks in Matlab/Octave. Exam interview - 60%, tasks - 40%.					
Learning outcomes: Methods of data processing in physics.					
Brief outline of the course: 1. Numerical methods. 2. Regression analysis. 3. Computational physics.					
Recommended literature: Buchanan J. L., Turner P. R.: Numerical Methods and Analysis. McGraw-Hill, Inc., New York, 1992. Siegel A. F.: Statistics and Data Analysis. An Introduction. J. Wiley&Sons, NY, 1988.					
Course language: slovak, basics of english					
Notes:					
Course assessment Total number of assessed students: 113					
A	B	C	D	E	FX
23.01	27.43	20.35	14.16	3.54	11.5
Provides: RNDr. Erik Čižmár, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ MDT06/06		Course name: Modern Didactical Technics			
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: 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: 76					
A	B	C	D	E	FX
97.37	1.32	0.0	0.0	0.0	1.32
Provides: doc. RNDr. Marián Kireš, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ MTF/07	Course name: Modern Trends in Physics
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: 4	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: test test	
Learning outcomes: Presentation of scientific goals and experimental facilities on the Institute of Physics. Discussion of new trends in physics of micro-world, astrophysics, biophysics and physics of condensed matter.	
Brief outline of the course: The present state of the micro-world physics – fundamental particles and the interaction forces. Theoretical description of the micro-world – the Standard Model. Experimental tests of the Standard Model - the discovery of neutral currents and intermediate W^{+-} , Z^0 bosons. Heavy ion collisions and the search for new state of matter - quark gluon plasma - on the most powerful accelerators RHIC (Relativistic Heavy Ion Collider), Brookhaven National Laboratory) , USA and on the constructed LHC (Large Hadron Collider), CERN, Geneva. Big Bang and the quark gluon plasma. Some open questions – search for Higgs boson, responsible for the mass of fundamental particles and quark gluon plasma in laboratory conditions. Practical activities – demonstration of the knowledge from lectures at identification of the real Z^0 decay events in experimental data from the LEP accelerator, CERN, Switzerland. New trends in astrophysical investigation: Solar system planets and exoplanets; cataclysmic variables, blazars and polars; black holes; quasars and active galactic nuclei, clusters of galaxies and web structure of Universe; gravitational lensing, dark matter and dark energy; gamma ray bursts. Topical problems in biophysics Low temperatures as a tool for the study of physical properties of matter. Non-Fermi liquid materials... Geometrically frustrated systems. Quantum tunneling in molecular magnets. Application of quantum magnets. Excursion in the Centre of Excellence of Low Temperature Physics. Soft magnetic nanostructure materials prepared by milling and alloying: magnetic properties of small particles, magnetization processes, domain structure, milling and alloying.	
Recommended literature: S. Chikazumi: Physics of Magnetism, J. Willey and Sons, Inc. New York, London, Sydney, 1997. C. Suryanarayana, Progress in Materials Science 46 (2001), 1-184	

F. Close : The Cosmic Onion, 1990 Cindy Schwarz :A Tour of the Subatomic Zoo, 1997 Frank Close, Michael Marten, Christine Sutton : The Particle Odyssey- A Journey to the Heart of Matter, 2002 http://vk.upjs.sk/~epog/2006/ Scientific journals	
Course language: english	
Notes:	
Course assessment Total number of assessed students: 53	
abs	n
100.0	0.0
Provides: Dr.h.c. prof. RNDr. Alexander Feher, DrSc.	
Date of last modification: 18.02.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/MB1/01		Course name: Molecular Biology			
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: 4					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Oral examination.					
Learning outcomes: To provide the students with knowledge of molecular basis of inheritance and control of gene expression and development.					
Brief outline of the course: Structure and properties of information macromolecules. Molecular mechanisms of DNA replication and repair, transcription and translation. Prokaryotic and eukaryotic genome. Control of gene expression in prokaryotes and eukaryotes. Control of cell cycle.					
Recommended literature: Lodish, H., Baltimore, D., Berk, A. et al.: Molecular Cell Biology. Sci. Amer. Books Inc., W.H. Freeman and Company, New York, 1995 Myers, R.A.: Molecular Biology and Biotechnology. VCH Publishers Inc., New York, 1995					
Course language:					
Notes:					
Course assessment Total number of assessed students: 729					
A	B	C	D	E	FX
6.04	10.56	17.15	17.83	33.61	14.81
Provides: doc. RNDr. Peter Solár, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 15.01.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ ZVF/03		Course name: Physics			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 0					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ((ÚFV/VF1a/07 or ÚFV/VF1a/12) or ÚFV/VF1b/03 and (ÚFV/VF1c/08 or ÚFV/VF1c/10 or ÚFV/VF1c/12) and (ÚFV/VF1d/08 or ÚFV/VF1d/12) and ÚFV/TMEU/03 and ÚFV/TEP1/03 and					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 69					
A	B	C	D	E	FX
17.39	21.74	36.23	14.49	5.8	4.35
Provides:					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ FDE/07		Course name: Physics in Demonstration Experiments			
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: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: The goal of the course is to get better the understanding of basic physical concepts and phenomena through demonstrational physical experiments.					
Brief outline of the course: The course is aimed at the conceptual understanding of basic physical concepts and phenomena with the help of selected demonstrational experiments. The experiments concern the content of the subject Introductory physics and their realization is based on students' active participation.					
Recommended literature: 1. D.Halliday, R.Resnick, J.Walker: Fyzika, VUTIUM, Brno, 2000 2.K.Cummings, P.W.Law, E.F.Redish, P.J.Cooney: Understanding Physics, John Wiley & Sons, Inc., 2004 3.P.G.Hewitt: Conceptual Physics, tenth edition, Pearson, Addison Wesley, 2006 4.Ľ.Onderová, M.Kireš, Z.Ješková, J.Degro: Praktikum školských pokusov II, PF UPJŠ, 2004					
Course language:					
Notes:					
Course assessment Total number of assessed students: 66					
A	B	C	D	E	FX
50.0	25.76	24.24	0.0	0.0	0.0
Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., RNDr. Ľudmila Onderová, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ ZFP1a/03	Course name: Physics Practical I
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 2.	
Course level: I.	
Prerequisites:	
Conditions for course completion: The active work during semester and hand in all reports. Vindication of reports.	
Learning outcomes: Developing proper laboratory habits, skills and verify their theoretical knowledge.	
Brief outline of the course: The goal of this laboratory exercises is to familiarize the students with measurement methods, with kinds and calculus of mistakes, with measured results processing, and with presentation of results. The students gain practical skills, and verify their theoretical knowledge of first semester introductory physics course. They develop proper laboratory habits. Laboratory assignment: 1. Density measurements of liquids and solids. 2. Radius measurements of spherical cap. Measurements of surface using planimeter. 3. Gravitational acceleration measurements using mathematical and physical pendulum. 4. Moment of inertia measurement using physical and torsion pendulum. 5. Measurements of Young's modulus. 6. Measurement of coefficient of viscosity. 7. Measurement of the speed of sound. 8. Measurements of general gas constant and Boltzmann constant. 9. Measurements of thermal expansivity of air. 10. Measurements of thermal capacity of matter. 11. Measurement of the surface tension.	
Recommended literature: Degro, J., Ješková, Z., Onderová, L., Kireš, M.: Základné fyzikálne praktikum I. (Basic physical measurements I), Ed. PF UPJŠ Košice 2007. Standards STN ISO 31. Slovenský inštitút normalizácie v Bratislave (Slovak institute of technical standards in Bratislava), 1997.	

Ješková, Z.: Computer based experiments in thermodynamics using IP COACH,ed. PF UPJŠ in Košice, 2004.					
Course language: english					
Notes:					
Course assessment Total number of assessed students: 174					
A	B	C	D	E	FX
54.02	27.01	12.64	5.17	1.15	0.0
Provides: doc. RNDr. Adriana Zeleňáková, PhD., doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., RNDr. Ľudmila Onderová, PhD., RNDr. Marcela Kajňáková, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ ZFP1b/03		Course name: Physics Practical II			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites: ÚFV/ZFP1a/03					
Conditions for course completion: Measuring of experimental tasks, their appreciation in the form of a written report, defending. Further evaluation is also a good theoretical preparation for the measurement of the task.					
Learning outcomes: The objectives of the laboratory are: a. To gain some physical insight into some of the concepts presented in the lectures. b. To gain some practice in data collection, analysis and interpretation of results. c. To gain experience and report writing presentation and results.					
Brief outline of the course: Students on practical exercises are working in pairs experimental tasks in the field of electrical, electromagnetic and magnetic properties of matters.					
Recommended literature: Tumanski S, Handbook of magnetic measurements, CRC press, 2011. Fiorillo F, Characterization and Measurement of Magnetic Materials, Elsevier, 2004.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 150					
A	B	C	D	E	FX
64.0	19.33	14.0	2.0	0.0	0.67
Provides: doc. RNDr. Adriana Zeleňáková, PhD., doc. RNDr. Ján Füzer, PhD.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ FR1/10		Course name: Plant Physiology			
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: 6					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚBEV/VB1/01					
Conditions for course completion:					
Learning outcomes: Overview of all important physiological processes in plant organisms.					
Brief outline of the course: Water in plan, mineral nutrition, photosynthesis, pholem transport, respiration, lipid biosynthesis, heterotrophy, metabolism of macronutrients, secondary metabolism, growth and development, plant hormones, photoreceptors, dormancy, germination, flowering, plant movements, stress physiology Lab practicals: Measurements of water potential, Quantitative analyses of nutrients in dust. Separation of assimilation pigments by TLC. Quantitative analyses of chlorophyll a and b. Biotest of cytokinins. Qualitative and quantitative analyses of sugars. HPLC separation of glucose and fructose. Measurements of respiration by selective electrode. Measurement of total nitrogen by Kjeldahl method. Qualitative analyses of proteins. Activity of some enzymes in potato and pea. Colour of anthocyanins at different pH. Measurement of silica level by distillation method. Germination of seeds.					
Recommended literature: Hopkins W.G. Huner N.P.A., Introduction to plant physiology. 3rd ed., Wiley, New York 2004					
Course language:					
Notes:					
Course assessment Total number of assessed students: 1312					
A	B	C	D	E	FX
14.86	11.59	14.1	12.8	23.55	23.09
Provides: prof. RNDr. Miroslav Repčák, DrSc., Mgr. Silvia Gajdošová, Ph.D., Doc. RNDr. Peter Paľove-Balang, PhD., RNDr. Veronika Petruľová, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ ZPJF/03		Course name: Practical Course III			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: Practice in nuclear physics.					
Brief outline of the course: Geiger-Müller counter. Analysing power of coincidence circuit by random coincidences. Statistic distribution of measured quantities. Measurement time scale selection. Absorption of beta rays. Backward scattering of beta rays. Gamma rays absorption. Scintillation gamma spectrometer. Determination of ⁶⁰ Co preparat activity using beta-gamma coincidences. Emulsion detector. Dosimetry measurements. Semiconductor detector. Franck Hertz experiment.					
Recommended literature: 1. J.Vrláková, S.Vokál: Základné fyzikálne praktikum, skriptá PF UPJŠ, Košice, 2012, dostupné na http://www.upjs.sk/public/media/5596/Zakladne-fyzikalne-praktikum-III.pdf					
Course language:					
Notes:					
Course assessment Total number of assessed students: 121					
A	B	C	D	E	FX
64.46	26.45	6.61	0.83	1.65	0.0
Provides: RNDr. Janka Vrláková, PhD., RNDr. Adela Kravčáková, PhD., RNDr. Igor Parnahaj, PhD., RNDr. Zuzana Fecková					
Date of last modification: 11.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PPZBc/12		Course name: Psychology and Health Psychology (Bc. study)			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 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: 92					
A	B	C	D	E	FX
14.13	20.65	25.0	28.26	11.96	0.0
Provides: PhDr. Anna Janovská, PhD., PhDr. Karolína Barinková, PhD., Mgr. Lucia Hricová					
Date of last modification: 04.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ KVM/08		Course name: Quantum Mechanics I.			
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: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: To become familiar with elementary principles of quantum mechanics and to illustrate its possible applications on selected examples.					
Brief outline of the course: A subject matter, experimental and theoretical foundations of quantum mechanics (QM). Basic axioms of QM. Schrödinger equation and its solution for a square potential well, harmonic oscillator and spherically symmetric potentials. Tunnel effect and over-barrier reflection. Spin and Pauli matrices. Systems of identical particles, bosons, fermions and Pauli exclusion principle.					
Recommended literature: 1. Ľ. Tóth, M. Tóthová, Kvantová a štatistická fyzika I, Rektorát Univerzity P. J. Šafárika, 1982. (in Slovak language) 2. Ľ. Skála, Úvod do kvantovej mechaniky, Academia, Praha, 2005. (in Czech language) 3. J. Pišút, L. Gomolčák, Úvod do kvantovej mechaniky, Bratislava 1983. (in Slovak language) 4. W. Greiner, Quantum Mechanics, 4th edition, Springer, Berlin, 2000. 5. A. C. Philips, Introduction to Quantum Mechanics, Wiley, Weinheim, 2003. 6. D. J. Griffiths, Introduction to Quantum Mechanics, Prentice Hall, New Jersey, 1995.					
Course language: EN - english					
Notes:					
Course assessment Total number of assessed students: 90					
A	B	C	D	E	FX
22.22	16.67	17.78	15.56	21.11	6.67
Provides: doc. RNDr. Jozef Strečka, PhD.					
Date of last modification: 31.01.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

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: 15.01.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/ FKS/03		Course name: Solid State Physics			
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: 6.					
Course level: I.					
Prerequisites: ÚFV/KVM/08					
Conditions for course completion: oral examination					
Learning outcomes: A general introductory course in solid state physics and material science. A student will be able to understand basic theoretical concepts used in solid state physics and interpret selected experimental data. She/he will also be able to adopt simpler experimental techniques.					
Brief outline of the course: Crystal structures and methods of structure analysis. Defects in crystalline solids. Chemical bonding in solids. Thermal properties of crystal lattice. "Free" electrons in metals. The electronic band structure of solids. Transport phenomena in metals and semiconductors. Superconductivity and superfluidity. Magnetic properties of solids. New problems of condensed matter physics.					
Recommended literature: H. Ibach, H. Lüth: Solid-State Physics. Springer - Verlag, Berlin, 1993. Ch. Kittel: Introduction to Solid State Physics. John Wiley & Sons, Inc. 1976.					
Course language:					
Notes:					
Course assessment Total number of assessed students: 125					
A	B	C	D	E	FX
17.6	31.2	17.6	16.8	16.8	0.0
Provides: Dr.h.c. prof. RNDr. Alexander Feher, DrSc., prof. Ing. Martin Orendáč, CSc.					
Date of last modification: 18.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 7160		
abs	n	neabs
88.42	7.82	3.76
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, Mgr. Dávid Kaško		
Date of last modification: 15.01.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

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: 6364		
abs	n	neabs
84.95	11.06	3.99
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, Mgr. Dávid Kaško		
Date of last modification: 15.01.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

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: 4191		
abs	n	neabs
89.91	4.72	5.37
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, Mgr. Dávid Kaško		
Date of last modification: 15.01.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

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: 3363		
abs	n	neabs
86.14	6.78	7.08
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, Mgr. Dávid Kaško		
Date of last modification: 15.01.2014		
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/STA1N/08		Course name: Statistical Physics			
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: 6.					
Course level: I.					
Prerequisites: ÚFV/KVM/08					
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
43.08	24.62	23.08	6.15	3.08	0.0
Provides: prof. RNDr. Michal Jaščur, CSc., RNDr. Jana Čisárová, PhD.					
Date of last modification: 31.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ SVK/01		Course name: Student Scientific Conference			
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: 4., 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: 175					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides:					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 63	
abs	n
41.27	58.73
Provides: Mgr. Peter Bakalár, PhD.	
Date of last modification: 15.01.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

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: 185	
abs	n
41.62	58.38
Provides: Mgr. Marek Valanský	
Date of last modification: 15.01.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/TMEU/03		Course name: Theoretical Mechanics			
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: ÚFV/VF1a/12					
Conditions for course completion: Two tests to deal with specific tasks mechanics. Final examination.					
Learning outcomes: To acquaint students with principles of the theoretical mechanics.					
Brief outline of the course: Mechanics of particle system with constraints. Principle of virtual work and d'Alembert's principle. Lagrange's function and Lagrange's equations of motion. Hamilton's principle, Hamilton's function and Hamilton's canonical equations of motion. Mechanics of rigid body. Kinematics and dynamics of rigid body.					
Recommended literature: 1. Meirovitch L.: Methods of Analytical dynamics, McGraw-Hill, New York, 1970. 2. Taylor T.T.: Mechanics: Classical and Quantum, Pergamon Press, Oxford, 1976. 3. Strelkov S.P.: Mechanics, Mir Publishers, Moscow, 1985. 4. Greiner W.: Classical Mechanics, Springer-Verlag, Berlin, 2010. 5. Goldstein H.: Classical Mechanics, Addison-Wesley, London, 1970. 6. Barger V., Olsson M.: Classical Mechanics: A Modern Perspective, McGraw-Hill, London, 1973.					
Course language: Slovak					
Notes:					
Course assessment Total number of assessed students: 134					
A	B	C	D	E	FX
15.67	18.66	14.93	21.64	24.63	4.48
Provides: prof. RNDr. Andrej Bobák, DrSc., RNDr. Michal Borovský					
Date of last modification: 31.01.2014					

Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚFV/TEP1/03		Course name: Theory of the Electromagnetic Field			
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: ÚFV/VF1b/03					
Conditions for course completion: Two tests to deal with specific tasks theory of the electromagnetic field. Examination.					
Learning outcomes: To acquaint students with principles of a theory of the electromagnetic field.					
Brief outline of the course: Maxwell equations in vacuum. Scalar and vector potentials. Conservation laws. Electrostatic field. Static magnetic field. Maxwell equations in macroscopic media. Quasistatic electromagnetic field. Electromagnetic waves. Radiation of electromagnetic waves.					
Recommended literature: 1. Jackson J.D.: Classical Electrodynamics, John Wiley, New York, 1975. 2. Rao N.N.: Basic Electromagnetics with Applications, Prentice-Hall, New Jersey, 1972. 3. Greiner W.: Classical Electrodynamics, Springer-Verlag, New York, 1998.					
Course language: 1. Slovak, 2. English					
Notes:					
Course assessment Total number of assessed students: 238					
A	B	C	D	E	FX
26.89	7.56	17.65	23.11	16.39	8.4
Provides: prof. RNDr. Andrej Bobák, DrSc., RNDr. Tomáš Lučivjanský, PhD.					
Date of last modification: 31.01.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

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: 59	
abs	n
25.42	74.58
Provides: PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc.	
Date of last modification: 15.01.2014	
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ ZO1/03		Course name: Zoology I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites: ÚBEV/PMZ/10					
Conditions for course completion:					
Learning outcomes: Basis of Invertebrata taxonomy- Importance and function of chosen individual taxons. Phylogenetic relations.					
Brief outline of the course: Anatomy, morphology and development of separate groups of Invertebrates – especially Porifera, Cnidaria, Plathelminthes, Nemathelminthes, Mollusca, Anelida, Arthropoda, Echinodermata. Characteristic species.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 851					
A	B	C	D	E	FX
7.76	15.63	19.51	19.62	26.67	10.81
Provides: doc. RNDr. Ľubomír Panigaj, CSc., RNDr. Peter Ľuptáčik, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ ZO1/15		Course name: Zoology I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites: ÚBEV/PMZ/10					
Conditions for course completion:					
Learning outcomes: Basis of Invertebrata taxonomy including taxonomy of Monocytozoa. Importance and function of chosen individual taxons. Phylogenetic relations.					
Brief outline of the course: Anatomy, morphology and development of separate groups of Invertebrates – especially Porifera, Cnidaria, Plathelminthes, Nemathelminthes, Mollusca, Anelida, Arthropoda, Echinodermata. Characteristic species.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 102					
A	B	C	D	E	FX
4.9	24.51	13.73	22.55	20.59	13.73
Provides: RNDr. Peter Ľuptáčík, PhD.					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ ZOO1/15		Course name: Zoology II			
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: 4					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚBEV/PMZ/10					
Conditions for course completion:					
Learning outcomes: Fundamental information on taxonomy and morphology of vertebrates					
Brief outline of the course: Systematic and phylogenetic relationships of vertebrate. Review of important groups of fishes, amphibians, reptiles, birds and mammals.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 20					
A	B	C	D	E	FX
0.0	45.0	15.0	30.0	5.0	5.0
Provides: RNDr. Marcel Uhrin, PhD., RNDr. Peter Ľuptáčík, PhD.					
Date of last modification: 27.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ ZOO1/03		Course name: Zoology II			
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: 4., 6.					
Course level: I.					
Prerequisites: ÚBEV/PMZ/10					
Conditions for course completion:					
Learning outcomes: Fundamental information on taxonomy and morphology of vertebrates					
Brief outline of the course: Systematic and phylogenetic relationships of vertebrate. Review of important groups of fishes, amphibians, reptiles, birds and mammals.					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 694					
A	B	C	D	E	FX
25.65	27.52	19.88	15.85	8.93	2.16
Provides: RNDr. Marcel Uhrin, PhD., RNDr. Peter Ľuptáčík, PhD.					
Date of last modification: 13.02.2014					
Approved: prof. RNDr. Peter Kollár, DrSc., prof. RNDr. Pavol Mártonfi, PhD.					