University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: ABAP basics ABSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 **Recommended semester/trimester of the course:** Course level: I., II., N Prerequisities: ÚINF/ZTSP/14 or ÚINF/SAP1a/06 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Principles of programming in ABAP, declaration of variables, the basic syntax of the language ABAP Open SQL, ABAP Workbench navigation, ABAP editor, arithmetic, logic conditions, string operations, cycles, test programs using a debugger, an overview of the most important commands of ABAP, definition elementary and structured data objects, functional groups and function modules. **Recommended literature:**

Course language:

Notes:

Course assessment

Total number of assessed students: 24

abs	n
95.83	4.17

Provides: RNDr. Štefan Pero

Date of last modification: 18.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: ABAP object and dialog programming OPSP/14 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:** Course level: I., II., N Prerequisities: ÚINF/RASP/14 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Screen, function codes, local and global classes, inheritance, polymorphism. **Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 20 abs n 50.0 50.0 Provides: RNDr. Štefan Pero Date of last modification: 18.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cou

Course name: ABAP reporting

RASP/14

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities: ÚINF/ABSP/14 or ÚINF/ABA/08

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Reading database tables, selection screens, events, declarations and branching of programs, working with internal tables, function modules: upload, download and module creation, code structure, forms and includes.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 20

abs	n
80.0	20.0

Provides: RNDr. Štefan Pero

Date of last modification: 18.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ Course name: Academic English

PFAJAKA/07

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

Prerequisities:

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

Slovotvorba 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	В	С	D	Е	FX
29.11	22.26	16.1	11.3	8.22	13.01

Provides: PaedDr. Gabriela Bednáriková

Date of last modification: 06.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Administration of IBM AIX/Tivoli AIX1a/08 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 0/2 Per study period: 0/28Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** 5. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 66 \mathbf{C} Α В D Е FX 71.21 24.24 4.55 0.0 0.0 0.0 Provides: RNDr. Tomáš Horváth, PhD., RNDr. Jozef Studenovský, CSc. Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Administration of IBM AIX/Tivoli AIX1b/08 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 0/2 Per study period: 0/28Course method: present Number of credits: 2 Recommended semester/trimester of the course: 6. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 43 C Α В D Е FX 65.12 13.95 11.63 6.98 0.0 2.33 Provides: RNDr. Tomáš Horváth, PhD. Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ | **Course name:** Administration of SAP system

ASSP/14

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

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities: ÚINF/ZLSP/14

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Fundamentals (System Logon, Configuring SAP Logon), Starting and Stopping (Starting SAP/Database, Stopping SAP / Database), System configuration (Parameters in SAP, Parameters in Database, Background Tasks(Scheduling Background Jobs, Monitoring of Background Jobs), Database Administration (Extend Tablespaces).

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 11

abs	n
100.0	0.0

Provides: RNDr. Štefan Pero

Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Advanced programming PRR1a/02 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 60 C A В D Е FX 51.67 6.67 5.0 21.67 8.33 6.67 Provides: RNDr. Rastislav Krivoš-Belluš, PhD., RNDr. Ladislav Mikeš Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Advanced programming PRR1b/02 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 40 \mathbf{C} A В D Е FX 45.0 5.0 0.0 22.5 17.5 10.0 Provides: RNDr. Rastislav Krivoš-Belluš, PhD., RNDr. Ladislav Mikeš Date of last modification: 03.02.2014

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University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ | Course name: Algebra I

ALGa/10

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: 1.

Course level: I.

Prerequisities:

Conditions for course completion:

According to the results from the semester and in view of the results of the written and oral final exam..

Learning outcomes:

To obtain basic knowledge from number theory concerning divisibility and from linear algebra concerning systems of linear equations. To be able to apply it in concrete excercises.

Brief outline of the course:

Divisibility in Z. Fields. Systems of linear equations, Gauss elimination. Maps, permutations. Computing with matrices. Determinants, Cramer rule.

Recommended literature:

T.S Blyth, E.F. Robertson: Basic linear algebra, Springer Verlag, 2001.

K. Jänich: Linear algebra, Springer Verlag, 1991.

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 1205

A	В	С	D	Е	FX
10.79	11.12	17.34	17.76	29.79	13.2

Provides: prof. RNDr. Danica Studenovská, CSc., RNDr. Igor Fabrici, Dr. rer. nat., RNDr. Miroslava Černegová, RNDr. Katarína Furcoňová, PhD., RNDr. Anna Mišková, RNDr. Peter Hudák, PhD.

Date of last modification: 14.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ | Course name: Algebra II for informaticians and physicists

ALG3b/10

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., II.

Prerequisities: ÚMV/ALGa/10

Conditions for course completion:

Exam

Learning outcomes:

To provide deeper knowledge on vector spaces, linear transformations and Euclidean spaces.

Brief outline of the course:

Vector spaces, subspaces. A basis, a dimension and a characterization of n-dimensional vector spaces. The rank of a matrix. Linear transformations and their matrices. Operations with linear transformations, matrices of sums and compositions of linear transformations. Regular linear transformations, regular matrices. Similar matrices. Characteristic vectors and characteristic values of linear transformations.

Affine spaces, subspaces and their positions. Euclidean spaces, the distance of subspaces. Conics and quadrics.

Recommended literature:

A. F. Beardon: Algebra and Geometry, Cambridge University Press, 2005

G. Birkhoff, S. Mac Lane: A Survey of Modern Algebra, New York 1965

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 261

A	В	С	D	Е	FX
9.96	7.66	9.58	14.56	41.38	16.86

Provides: doc. RNDr. Roman Soták, PhD., RNDr. Katarína Furcoňová, PhD., RNDr. Anna

Mišková, RNDr. Peter Hudák, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Algorithms and data structures **ASU1/13** Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: 6. Course level: I. Prerequisities: ÚINF/PAZ1b/03 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 176 C A В D Е FX 10.8 9.66 14.2 21.02 38.64 5.68 Provides: RNDr. Rastislav Krivoš-Belluš, PhD. Date of last modification: 03.02.2014

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University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Aplikovaná pravdepodobnosť a štatistika

APS1/14

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: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Acquired basic concepts and techniques of probability theory, statistics and corresponding software.

Brief outline of the course:

Events, probability. Laws of probability distributions, characteristics of location, variability and dependency. Samples, estimates and tests of hypotheses. Modeling of dependencies, noise and smoothing. Bayes theory of decision. Pseudorandom values and Monte Carlo method.

Recommended literature:

- Cs. Török: Úvod do teórie pravdepodobnosti a matematickej štatistiky, Košice, 1992
- M.R.Spiegel, J.J.Schiller, R.A.Srinivasan, Probability and Statistics, McGraw Hill, 2009
- J. Maindonald, W.J. Braun, Data Analysis and Graphics Using R-an Example-Based Approach, CAMBRIDGE UNIVERSITY PRESS, 2010

Course language:

Notes:

Course assessment

Total number of assessed students: 16

A	В	С	D	Е	FX
0.0	12.5	12.5	31.25	43.75	0.0

Provides: doc. RNDr. Csaba Török, CSc.

Date of last modification: 19.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Automata and formal languages

AFJ1a/03

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: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Oral examination.

Learning outcomes:

To provide theoretical background for studying computer science in general, by giving the necessary knowledge in theory of automata.

Brief outline of the course:

Chomsky hierarchy of grammars and languages. Finite-state transducers and mapping, construction of a reduced automaton. Finite-state acceptors, nondeterministic acceptors, regular expressions. Closure properties of regular languages. Context-free grammars, Chomsky and Greibach normal forms. Pushdown automata, Pumping lemma. Closure properties of context-free languages.

Recommended literature:

J.E.Hopcroft and J.D.Ullman. Formal languages and their relation to automata. Addison-Wesley. (Slovak translation published by ALFA, Bratislava, 1978).

M.Chytil. Automata and grammars. SNTL, 1984. (In Czech).

J.van Leeuwen (ed.): Handbook of theoretical computer science. North-Holland, 1990.

Course language:

Notes:

Course assessment

Total number of assessed students: 718

A	В	С	D	Е	FX
22.7	17.69	24.65	18.8	10.72	5.43

Provides: Mgr. Alexander Szabari, PhD., prof. RNDr. Viliam Geffert, DrSc., RNDr. Juraj Šebej, RNDr. Zuzana Bednárová, PhD.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Automata and formal languages

AFJ1b/00

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 5.

Course level: I., II.

Prerequisities: ÚINF/AFJ1a/03

Conditions for course completion:

Test and oral examination.

Learning outcomes:

To provide theoretical background for studying computer science in general, by giving the necessary knowledge in theory of automata.

Brief outline of the course:

Greibach normal structure of contextfree gramars. Deterministic pushdown automata. Context-sensitive grammars and linearly-bounded Turing machines. Deterministic linearly-bounded Turing machines. Space bounded machines. Phrase-structure grammars and Turing machines. Post correspondence problem. Undecidable problems in the theory of formal languages.

Recommended literature:

J.E.Hopcroft and J.D.Ullman. Formal languages and their relation to automata. Addison-Wesley. (Slovak translation published by ALFA, Bratislava, 1978).

M.Chytil. Automata and grammars. SNTL, 1984. (In Czech).

J.van Leeuwen (ed.): Handbook of theoretical computer science. North-Holland, 1990.

Course language:

Notes:

Course assessment

Total number of assessed students: 471

A	В	С	D	Е	FX
37.58	13.8	20.59	18.68	6.37	2.97

Provides: prof. RNDr. Viliam Geffert, DrSc., Mgr. Alexander Szabari, PhD.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice						
Faculty: Faculty of S	cience					
Course ID: ÚINF/ ZPIRa/04						
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	ce rse-load (hours): dy period: 28					
Number of credits: 2						
Recommended seme	ster/trimester of the cours	e: 5.				
Course level: I.						
Prerequisities: ÚINF	7/PBS/07					
Conditions for cours	se completion:					
Learning outcomes:						
Brief outline of the c	ourse:					
Recommended litera	iture:					
Course language:						
Notes:						
Course assessment Total number of asses	ssed students: 168					
abs n						
100.0 0.0						
Provides: RNDr. Pete Andrejková, CSc.	er Gurský, PhD., doc. RNDi	. Jozef Jirásek, PhD., doc. RNDr. Gabriela				
Date of last modifica	tion: 03.02.2014					
Approved: prof RNDr Viliam Geffert DrSc						

University: P. J. Šafá	irik University in Košice			
Faculty: Faculty of S	Science			
Course ID: ÚINF/ ZPIRb/04	Course name: Bachelor to	nesis		
Course type, scope a Course type: Practi Recommended cou Per week: 4 Per stu Course method: pr	ce rse-load (hours): ıdy period: 56			
Number of credits:	6			
Recommended seme	ester/trimester of the cour	se: 6.		
Course level: I.				
Prerequisities:				
Conditions for cour	se completion:			
Learning outcomes:				
Brief outline of the	course:			
Recommended litera	ature:			
Course language:				
Notes:	-			
Course assessment Total number of asse	essed students: 167			
	abs	n		
99.4 0.6				
Provides: RNDr. Pet Andrejková, CSc.	er Gurský, PhD., RNDr. Fra	intišek Galčík, PhD., doc. RNDr. Gabriela		
Date of last modifica	ation: 03.02.2014			
Approved: prof RN	Dr Viliam Geffert DrSc			

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Bachelor Thesis and its Defence **BPO/14** 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 1 \mathbf{C} Α В D Е FX 0.0 100.0 0.0 0.0 0.0 0.0 **Provides:** Date of last modification: 17.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Basic methods of data minig

ZDD1/12

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.

Prerequisities:

Conditions for course completion:

Final project and examination

Learning outcomes:

Understanding of basic concepts from the areas of data mining and machine learning and basic usage of freely available softwares.

Brief outline of the course:

During the course, students become familiar with the following concepts: regression vs. classification; modeling; overfitting vs. underfitting and regularization; CRISP-DM methodology; data pre-processing: sampling, dimensionality reduction, validation of a model; basic data types: relational vs. multi-relational, time-series; different applications and basics of freewares such as for example Weka and RapidMiner.

Recommended literature:

- 1. Jiawei Han, Micheline Kamber, Jian Pei. Data Mining: Concepts and Techniques. Morgan Kaufmann, ISBN 978-0123814791, 2011.
- 2. Pang-Ning Tan, Michael Steinbach, Vipin Kumar. Introduction to Data Mining. Addison-Wesley, ISBN 978-0321321367, 2005.
- 3. Ethem Alpazdin. Introduction to Machine Learning, The MIT Press, ISBN 978-0-262-01211-9, 2004.

Course language:

Notes:

Course assessment

Total number of assessed students: 28

A	В	С	D	Е	FX
10.71	10.71	14.29	25.0	28.57	10.71

Provides: RNDr. Tomáš Horváth, PhD.

Date of last modification: 28.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KGER/ **Course name:** Communication Competence in the German Language NJKK/07 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 42 \mathbf{C} Α В D Е 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. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ Course n

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

Prerequisities:

Conditions for course completion:

ontrolný 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	В	С	D	Е	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

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ Course name: Communicative Grammar in English

PFAJGA/07

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

Prerequisities:

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 najfrekventovanejších 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	В	С	D	Е	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. Viliam Geffert, DrSc.						

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Computability theory

TVY/10

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course: 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To provide theoretical background for studying computer science in general, by familiarising students with basic knowledge of the theory of computability.

Brief outline of the course:

Turing machine as a formalisation of the notion of an algorithm. Partial recursive functions. Kleene's normal form theorem. The equivalences of the notion of a function calculable by a Turing machine, partial recursive and calculable by a computer program. Algorithmical undecidability of the halting problem of a Turing machine and a computer program.

Recommended literature:

MACHTEY, M. and YOUNG, P.: An Introduction to the General Theory of Algorithms, North-Holland, Amsterdam 1978.

BRIDGES, D. S.: Computability, A Mathematical Sketch book, Springer--Verlag 1994

Course language:

Notes:

Course assessment

Total number of assessed students: 751

A	В	С	D	Е	FX
17.04	10.65	19.17	18.38	11.19	23.57

Provides: doc. RNDr. Stanislav Krajči, PhD., RNDr. Ľubomír Antoni, PhD.

Date of last modification: 03.02.2014

	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚINF/ PSIN/13	Course name: Computer network Internet
Course type, scope a Course type: Lectur Recommended cour Per week: 3 / 1 Per Course method: pre	re / Practice rse-load (hours): study period: 42 / 14
Number of credits: 5	<u>i</u>
Recommended seme	ster/trimester of the course: 4.
Course level: I.	
Prerequisities: ÚINF	/PAZ1a/10 or ÚINF/ePAZ1a/11
Conditions for cours Activity at excercises verbal exam, final tes	s, home work, test.
channels parameters, center network device of internet packets, to	OSI reference model for network communication, to analyze communication to understand different access methods, to be familiar with the function of es (hub, switch, router), to understand IP protocol, IP addresses and the transfer understand reliable data transfer of the TCP protocol, to be able to use Sockets, ation protocols and use them in own applications.
to-peer applications. demultiplexing, proto congestion control. N translation, routing al CSMA/CD and CSM	ourse: nodel. Web and HTTP, e-mail and SMTP, domain names and DNS, Peer-Security in computer networks. Transport layer services, multiplexing and ocol UDP, reliable data transfer, connection oriented transport protocol TCP, letwork Layer: Internet protocol IPv4 and IPv6, addressing, network address gorithms and protocols. Link layer: error detection, multiple access methods MA/CA, Ethernet, 802.11 Wireless LAN, link layer addressing, VLANs, nologies. Communication channels parameters, digital and analog encoding.
2. A. S. Tanenbaum:3. W. Stallings: Local4. E. Comer, R.E. Dro	W. Ross: Computer Networking: A Top-Down Approach, 5. edícia, 2010 Computer Networks, Prentice Hall, 2002 I and Metropolitan Area Networks, Prentice Hall, 2000 oms: Computer Networks and Internets, Prentice Hall, 2003 P/IP Illustrated, Vol.1: The Protocols, Addison-Wesley, 1994
Course language:	

Notes:

Course assessment Total number of assessed students: 625						
A	В	С	D	Е	FX	
9.6	4.48	10.08	15.52	38.24	22.08	
Provides: RNDr. Peter Gurský, PhD.						

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Concurrent programming KOPR/12 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 48 C Α В D Е FX 18.75 16.67 33.33 12.5 4.17 14.58 Provides: RNDr. Róbert Novotný, PhD., RNDr. Peter Gurský, PhD. Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ **Course name:** Cryptographic systems and their applications **KRS/13** 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:** 3., 5. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 84 C A В D Е FX 13.1 10.71 9.52 11.9 34.52 20.24 Provides: doc. RNDr. Jozef Jirásek, PhD., RNDr. Rastislav Krivoš-Belluš, PhD. Date of last modification: 03.02.2014

Page: 31

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Database systems

DBS1a/03

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.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Acquired basic concepts and techniques of relational database theory and corresponding software.

Brief outline of the course:

Data models. Languages for defining and manipulating data (DDL, DML). Tables, attributes and integrity constraints. Queries: select, where, group by, aggregate and system functions. Nested queries and several tables: join, union, primary, foreign key. Relational algebra.

Recommended literature:

- S. Krajčí: Databázové systémy, UPJŠ, 2005
- J. ULLMAN: Principles of database and knowledge base systems, Comp. Sci. Press., 1988
- R. Ramakrishnan, J. Gehrke, Database Management Systems, McGraw-Hill, 2003
- Itzik Ben-Gun, Microsoft SQL Server 2012 T-SQL Fundamentals, O'Reilly, 2012
- HENDERSON, K.: The Guru's Guide to Transact SQL, Addison Wesley Professional, 2000

Course language:

Notes:

Course assessment

Total number of assessed students: 718

A	В	С	D	Е	FX
11.56	9.19	16.85	22.56	31.48	8.36

Provides: doc. RNDr. Csaba Török, CSc., Mgr. Maroš Andrejko, RNDr. Lukáš Miňo

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Database systems

DBS1b/03

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: 4.

Course level: I.

Prerequisities: ÚINF/DBS1a/03 or ÚINF/eDBS1a/11

Conditions for course completion:

Learning outcomes:

Mastering the basic techniques of effective design, normalization and programmable extension of relational databases.

Brief outline of the course:

Database modelling. Functional dependency and normalization. Recursion and transitive closure. Cursors. Stored procedures. Indices and B-trees. Triggers. Transaction. XML, SDL, XPath, XOuerv.

Recommended literature:

- S. Krajčí: Databázové systémy, UPJŠ, 2005 2. J.
- Date C.J., Database Design and Relational Theory, O'Reilly, 2012
- Atkinson, P., Vierra, R., BEGINNING MICROSOFT SQL SERVER 2012 PROGRAMMING, John Wiley Wrox, 2012
- Itzik Ben-Gan, Microsoft SQL Server, 2012 T-SQL Fundamentals, O'Reilly, 2012
- L. Davidson, J.M. Moss, Pro SQL Server 2012 Relational database Design and Implementation, APRESS, 2012

Course language:

Notes:

Course assessment

Total number of assessed students: 608

A	В	С	D	Е	FX
10.36	7.73	10.86	22.2	36.84	12.01

Provides: doc. RNDr. Csaba Török, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Databázy a informačné systémy DBdi/13 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., 5. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 718 C Α В D Е FX 11.56 9.19 16.85 22.56 31.48 8.36 Provides: RNDr. Peter Gurský, PhD. Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Defence of bachelor thesis OZP/04 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 139 C A В D Е FX 43.88 20.14 18.71 6.47 2.16 8.63 **Provides:** Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ Course na

DSM3a/10

Course name: Discrete mathematics for informaticians

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: 2.

Course level: L

Prerequisities:

Conditions for course completion:

Based on results of two semestral tests.

Based on semestral evaluation and the result of examination (test).

Learning outcomes:

To present the basics of combinatorics and their applications in computer science.

Brief outline of the course:

Mathematical induction and Dirichlet principle. The sum and the product rule. Permutations, k-permutations, combinations. Selections with repetitions. The inclusion/exclusion principle. Recurrent equations. Introduction to graph theory. Trees. Eulerian and Hamiltonian graphs. Planar graphs. Graph colourings.

Recommended literature:

- 1. S. Jendrol', P. Mihók: Diskrétna matematika I., UPJŠ Košice 1992
- 2. J. Nešetřil, J. Matoušek: Kapitoly z diskrétní matematiky
- 3. E. R. Scheinerman: Mathematics a discrete introduction, Brooks/Cole Publ. Comp. Pacific Grove 2000.
- 4. R.P. Grimaldi: Discrete and Computational Mathematics, Addison-Wesley Publ. Co.-Rending

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 521

A	В	С	D	Е	FX
4.03	2.3	3.84	13.24	52.02	24.57

Provides: doc. RNDr. Tomáš Madaras, PhD., RNDr. Mária Maceková

Date of last modification: 14.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ Co

Course name: English Language of Natural Science

PFAJ4/07

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.

Prerequisities:

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, ergonomika

Programovanie

Emailovanie

Cybercrime

Trendy budúcnosti

Recommended literature:

študijné materiálny dodané vyučujúcim

Velebná, V. English for Chemists.

Redman, S.: English Vocabulary in Use, Pre-intermetdiate, 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-intermetdiate, 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	В	С	D	Е	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

University: P. J. Šafárik University in Košice
Faculty: Faculty of Science

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.

Prerequisities: (ÚINF/AFJ1b/00 or ÚINF/eAFJ1b/11) and (ÚMV/MAN3b/10 or ÚMV/eMAN3b/11) and (ÚINF/SLO1a/06 or ÚINF/eSLO1a/11)

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 99

A	В	С	D	Е	FX
17.17	18.18	16.16	15.15	32.32	1.01

Provides:

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Formal models of computational processes B

BIFM2/06

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.

Prerequisities: (ÚINF/UGR1/04 or ÚINF/UKR1/09 or ÚINF/UNS1/04) and (ÚINF/AFJ1b/00 or ÚINF/eAFJ1b/11) and (ÚINF/eASU1/11 or ÚINF/ASU1/13) and (ÚINF/SLO1a/06 or ÚINF/eSLO1a/11)

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 12

A	В	С	D	Е	FX
0.0	25.0	0.0	16.67	58.33	0.0

Provides:

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Functional programming

FUN1/14

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: 5.

Course level: I., II.

Prerequisities: ÚINF/PAZ1c/03

Conditions for course completion:

Learning outcomes:

To learn bases of declarative programming (as complementary method to procedural programming) and basic methods of implementations of functional programming languages.

Brief outline of the course:

Principles of functional programming. Lambda calculus from the functional programming languages point of view. Properties of functional programming languages. Programming language Haskell: the structure of the language and basic computational rule, basic data types, lists, recursion and induction, trees

Recommended literature:

BIRD, R., WADLER, P.: Introduction to Functional Programming. Prentice Hall International, 1988.

LIPOVAČA, M.: Learn You Haskell for Great Good!. Free from http://learnyouahaskell.com/

Course language:

Notes:

Course assessment

Total number of assessed students: 4

A	В	С	D	Е	FX
75.0	25.0	0.0	0.0	0.0	0.0

Provides: doc. Ing. Štefánia Gallová, CSc.

Date of last modification: 25.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: General Ecology VEK2/10 Course type, scope and the method: Course type: Lecture **Recommended course-load (hours):** Per week: 2 Per study period: 28 Course method: present **Number of credits: 3** Recommended semester/trimester of the course: 3. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 110 C Α В D Е FX 10.0 24.55 33.64 22.73 9.09 0.0 Provides: prof. RNDr. Igor Hudec, CSc. Date of last modification: 13.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Genetics

GEE1/03

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.

Prerequisities:

Conditions for course completion:

written tests

oral examination

Learning outcomes:

To provide the students with knowledge of basic genetic principles of inheritance.

Brief outline of the course:

Mendel's principles of inheritance. Gene interactions. Sex-linked traits. Cytogenetics, mutations and mutagenesis. Structure and function of DNA, mRNA, tRNA and rRNA. Genetic code. Mechanism of replication, transcription and translation. Post-transcriptional and post-translational modifications. Regulation of gene expression. Genetic mechanisms at subcellular level. Genetics of bacteria. Cytogenetics and mutations. Basis of human genetics. Population genetics. Quantitative traits. Human genome project.

Recommended literature:

Darnell, J., Lodish, H., Baltimore, D.: Molecular Cell Biology. Scientific American, New York, 1992

Lewin, B.: Genes IV. Oxford University Press, Oxford, 1990

Loewy, A. G.,, Ciekewitz, P., Menninger, J. R., Gallant, J. A. N.: Cell Structure and Function. Saunders College Publ., Philadelphia, 1991

Russell, P. J.: Genetics. Harper Collins Publ., New York, 1992

Van Dam-Mieras, M. C. a kol.: Genome Management in Eukaryotes. Butterworth-Heinemann Ltd., Oxford, 1993

Course language:

Notes:

Course assessment

Total number of assessed students: 183

A	В	С	D	Е	FX
12.02	7.1	18.03	18.03	28.96	15.85

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

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/

Course name: Geographic Information Systems

GIS/07

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: 4., 6.

Course level: I.

Prerequisities: ÚGE/ZKA/13 or ÚGE/KAT1/05

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Introduction to GIS and geoinformation problematic, basics of geoinformatics, principals of vector and raster representation, surfaces – digital terrain models, organisation of work in projects, system implementation, data sources and data input, data structuring, data analysing, digital image processing, process of layout creation, data quality and metadata, standardisation the digital data and legislation, GIS software products (ArcGIS and relevant ESRI products, Geomedia and Intergraph products, MapInfo, Topol), applications in a geography field in Slovakia, development trends in GIS and geoinformation field.

Recommended literature:

Maguire, D. J., Goodchild, M.F. Geographical Information Systems, Longman scientific & technical, USA 1991,

Burrough, P. A. and McDonnell, R. A. (1998). Principles of Geographical InformationSystems. Oxford: Oxford University Press.

Course language:

Notes:

Course assessment

Total number of assessed students: 243

A	В	C	D	Е	FX
32.51	21.81	28.4	9.88	7.41	0.0

Provides: Mgr. Michal Gallay, PhD., prof. Mgr. Jaroslav Hofierka, PhD.

Date of last modification: 11.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KGER/ Course name: Grammar in the German Language Communication NJKG/07 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 46 \mathbf{C} Α В D Е FX 54.35 13.04 8.7 8.7 4.35 10.87 Provides: Dr. rer. pol. Michaela Kováčová Date of last modification: 05.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB10 - Medzinárodný certifikát ECo-C IB10/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB11 - Medzinárodný certifikát ECDL IB11/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB12 - Používanie, administrácia a vývoj v systéme SAP IB12/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB1 - Etika v biomedicínskych vedách pre zdravotnícku prax IB1/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ | Course name: IB2 - Právne minimum – súkromnoprávne aspekty IB2/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ | Course name: IB3 - Právne minimum – verejnoprávne aspekty IB3/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ | Course name: IB4 - Projektový manažment IB4/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB5 - Manažérska ekonomika IB5/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB6 - Riešenie konfliktných a krízových situácií v školskej IB6/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB7 - Štatistika pre prax IB7/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ | Course name: IB8 - Environmentálne aspekty záťaže životného prostredia IB8/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: R UPJŠ/ Course name: IB9 - Medzinárodný certifikát TOEFL IB9/14 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. **Prerequisities: 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 neabs n 0.0 0.0 0.0 **Provides:** Date of last modification: 11.08.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ C

Course name: Informatics for medicine

MIN1/06

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 3., 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Oral and written exam

Learning outcomes:

To present an application of computer science in medicine domain with emphasis on the specific conditions for so-called safety-relevant domain.

Brief outline of the course:

Software development go medicine domain (radiotherapy and ultrasound). Syngo platform, MS .NET, C#, C++. Development based on so-called "V" development model. An overview of used software tools:

RationalRose, RequisitePro, UITA, Caliber, ClearCase. Quality and process management and SW company management according to CMMI methodology.

Recommended literature:

http://www.syngo.com

http://www.siemens.com

Course language:

Notes:

Course assessment

Total number of assessed students: 68

A	В	С	D	Е	FX
75.0	25.0	0.0	0.0	0.0	0.0

Provides: doc. Ing. Norbert Kopčo, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Informatika I. BSSI/14 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 0 \mathbf{C} Α В D Ε FX 0.0 0.0 0.0 0.0 0.0 0.0 **Provides:** Date of last modification: 19.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Introduction to computer graphics

UGR1/04

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 3., 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To provide the students with knowledge of graphics algorithms and basic principles of computer graphics.

Brief outline of the course:

Graphics hardware, input and output devices. Color models, palettes. Raster graphics algorithms for drawing 2D primitives. Filling and clipping. Curve modeling, interpolations and approximations, spline forms, Bézier curves, B-splines, surfaces. Homogenous coordinates, affine transformations, perspective and parallel projections. Visible-surface determination, illumination and shading. Rendering techniques, photorealism, textures, ray tracing, radiosity. Object representations, computer animation, virtual reality.

Recommended literature:

FOLEY, J. D., van DAM, A., FEINER, S., HUGHES, J.: Computer Graphics: Principles and Practice, Addison-Wesley, 1991

MORTENSON, M.E.: Geometric modeling, 2.ed., Willey, 1997

Course language:

Notes:

Course assessment

Total number of assessed students: 216

A	В	С	D	Е	FX
13.43	7.87	12.5	24.07	32.41	9.72

Provides: RNDr. Rastislav Krivoš-Belluš, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Introduction to neural networks

UNS1/04

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 3., 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To understand and to know applications of basic paradigms of neural networks. To learn working with software for neural network models.

Brief outline of the course:

Basic models of computational units - neurons (linear threshold gates, polynomial threshold gates, perceptrons), their computational capability, algorithms of adaptations. Feed-forward neural networks, back propagation algorithm. Hopfield neural networks. ART neural networks. Using neural networks to solving of problems. Genetic and evolution algorithms.

Recommended literature:

J. Hertz, A.Krogh, R.G. Palmer: Introduction to the theory of neural computation, Addison Wesley, 1991

HASSOUN, M. H.: Fundamentals of artificial neural networks, The MIT Press, 1995

Course language:

Notes:

Course assessment

Total number of assessed students: 336

A	В	С	D	Е	FX
8.04	15.18	23.81	21.43	27.08	4.46

Provides: doc. RNDr. Gabriela Andrejková, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ C

Course name: Introduction to neurosciences

UNV1/12

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.

Prerequisities:

Conditions for course completion:

Examination

Learning outcomes:

Introduction to anatomy and physiology of human brain, to cognitive processes corresponding to different mental functions, and to computational tools used in neuroscience.

Brief outline of the course:

Description of neural centers of basic cortical functions (visual, auditory, sensory and motor cortex, learning and memory). Basic physiological, psychological, psychophysical and computational methods used in neuroscience with focus on the application of computational tools for electrophysiological brain activity recording and imaging (e.g., magnetic resonance). Computational applications of neuroscience research.

Recommended literature:

- 1. Gazzaniga M. (ed.): The New Cognitive Neurosciences. 2nd ed. MIT Press. 1999
- 2. Dayan P and LF Abbott: Theoretical Neuroscience Computational and Mathematical Modeling of Neural Systems. MIT Press, 2001
- 3. Stillings et al.: Cognitive Science: An Introduction, 2nd ed., MIT Press, 1995

Course language:

Notes:

Course assessment

Total number of assessed students: 4

A	В	С	D	Е	FX
0.0	25.0	25.0	0.0	50.0	0.0

Provides: doc. Ing. Norbert Kopčo, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Course name: Introduction to study of informatics

UIN1/13

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.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 159

A	В	С	D	Е	FX
30.19	21.38	18.24	15.72	5.03	9.43

Provides: doc. RNDr. Stanislav Krajči, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Alexander Szabari, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: Dek. PF UPJŠ/USPV/13	Course ID: Dek. PF Course name: Introduction to Study of Sciences UPJŠ/USPV/13				
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 seme	ster/trimester of the cours	e: 1.			
Course level: I.					
Prerequisities:					
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	nture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed 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 Zeleňák, PhD., Doc. RNDr. Jozef Hanč, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Vladislav Kolarčik, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 17.02.2014					
Approved: prof. RNDr. Viliam Geffert, DrSc.					

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Cou

Course name: Law aspects of information technology and computer

KOPaHP/PAI/09 science

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 0 / 2 Per study period: 0 / 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 4., 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 62

A	В	С	D	Е	FX
37.1	29.03	27.42	6.45	0.0	0.0

Provides: prof. JUDr. Ján Husár, CSc., doc. RNDr. Gabriel Semanišin, PhD., RNDr. JUDr. Pavol Sokol, PhD.

Date of last modification: 14.01.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/

Course name: Linear and integer programming

LCO/10

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.

Prerequisities: ÚMV/ALGa/10

Conditions for course completion:

Two tests, using software CASSIM, oral exam

Learning outcomes:

To learn the solving methods of linear programming

Brief outline of the course:

Formulation of linear and integer programs. Graphic solution. Simplex method, its variants and finiteness. Duality and its economic interpretation. Sensitivity analysis and parametric programming. Algorithms for integer programming.

Recommended literature:

Ch. Papadimitriou – K. Steiglitz: Combinatorial Optimization: Algorithms and Complexity, 1984 R.J. Vanderbei, Linear Programming:Foundations and Extentions (Kluwer 2001), electronic version: http://www.princeton.edu/~rvdb/LPbook/

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 123

A	В	С	D	Е	FX
22.76	13.82	22.76	20.33	19.51	0.81

Provides: doc. RNDr. Roman Soták, PhD., RNDr. Pavol Široczki

Date of last modification: 14.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Linux fundamentals for SAP ZLSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N Prerequisities: ÚINF/ZTSP/14 or ÚINF/SAP1a/06 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Introduction to Linux: commands, permissions & processes, work with the files, advanced Linux: advanced commands; basics of networking & scripting, SAP architecture on OS level. **Recommended literature: Course language: Notes: Course assessment** Total number of assessed students: 12 abs n 100.0 0.0 Provides: RNDr. Štefan Pero Date of last modification: 17.02.2014

Page: 70

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/

Course name: Logic Circuits

FLO/09

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: 3.

Course level: L

Prerequisities:

Conditions for course completion:

written exam, presence at the laboratory practice

Learning outcomes:

Student will obtain knowledge about principles of functioning, analysis and synthesis of logical electronic circuits, as a basic unit of computing technology. Student will use his theoretical knowledge to design and to construct of electronic circuits and he/she will learn how to interpret measured results.

Brief outline of the course:

1. Combinatorial logical circuits (definitions, laws of logical algebra, electronic models of operations of Boolean algebra, NAND, digital multiplexor and demultiplexor, detector of errors for BDC code, arithmetic addition of two one bit binary operands). 2. Digital memory circuits (bistable circuit as basic memory unit, synchronous and asynchronous switching circuits). 3. Sequentional logical circuits (sequentional behavior, structure and stability of sequentional logical circuits, basic sequentional functions and their realization, arithmetic unit of digital computer)

Recommended literature:

Petrovič P.: Elektronika I – Vybrané obvody číslicovej techniky. Skriptum PF, Edičné stredisko UPJŠ, Košice 2003. 2. vydanie: Vydavateľstvo UPJŠ, Košice, 2006.

Course language:

Notes:

Course assessment

Total number of assessed students: 167

A	В	С	D	Е	FX
29.94	32.34	20.96	5.39	1.8	9.58

Provides: Mgr. Vladimír Komanický, PhD.

Date of last modification: 18.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Logic programming

LOP1/04

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: 6.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To learn bases of declarative programming (as complementary method to procedural programming) and basic methods of implementations of logic programming languages.

Brief outline of the course:

Facts and rules in Prolog. Unification of terms (Robinson's unification algorithm). Recursion and backtrack in Prolog. Computational step and computational tree. Classification of terms. Lists. Functors and operators in composed terms. Predicates for input and output. Dynamic database. Cycles (repeat-fail, for). Predicates related to backtrack. Cut. Predicates evaluating of arithmetic expressions.

Recommended literature:

BRATKO, I.: Prolog – programming for artificial intelligence, third edition. Addison-Wesley, 2001

Course language:

Notes:

Course assessment

Total number of assessed students: 211

A	В	С	D	Е	FX
19.43	10.9	15.64	24.64	27.01	2.37

Provides: RNDr. Ondrej Krídlo, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/

Course name: Mathematical analysis I for informaticians and physicists

MAN3a/10

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 4 / 3 Per study period: 56 / 42

Course method: present

Number of credits: 8

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Continuous assessment is taken the form of small tests and two main tests during the semester. Final evaluation is given by continuous assessment (50%), written and oral part of the exam (50%).

Learning outcomes:

The course provides students with the basics of mathematical analysis necessary to study physics and computer science. The students also learn mathematical culture, notation and mathematical way of thinking and expression.

Brief outline of the course:

- 1. Introduction language of mathematics, basics of formal logic.
- 2. Real numbers and sets ordering, boundedness, infimum, supremum.
- 3. Sequences boundedness, monotonicity, convergence, subsequences.
- 4. Series sum, tests for convergence, absolute and relative convergence.
- 5. Functions of one real variable fundamental concepts, limits and operations with them.
- 6. Continuous functions and their properties on the set (interval). Elementary functions.
- 7. Derivative, differentiability, difference and differential, fundamental theorems of differential calculus.
- 8. Using differential calculus for the investigation of properties of functions and their behavior.
- 9. Other applications of derivative calculation of limits, Taylor polynomials.
- 10. Power series radius and range of convergence, properties of the sum of power series, Taylor series.

Recommended literature:

- 1. B. Mihalíková, J. Ohriska: Matematická analýza 1, vysokoškolský učebný text, UPJŠ v Košiciach, Košice, 2000 (in Slovak).
- 2. Z. Došlá, J. Kuben: Diferenciální počet funkcí jedné proměnné, vysokoškolský učebný text, Masarykova univerzita v Brne, Brno, 2004 (in Czech).
- 3. D. Brannan: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge, 2006.
- 4. K. A. Ross: Elementary Analysis: The theory of Calculus, Springer, New York, 2010.
- 5. A. Banner: The calculus lifesaver, Princeton university press, Princeton, 2007.

6. B. S. Thomson, J. B. Bruckner, A. M. Bruckner: Elementary real analysis, Prentice Hall (Pearson), Lexington, 2008.

7. J. Stewart: Calculus: Early Transcendentals, Brooks Cole (Thomson), Toronto, 2008.

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 850

A	В	С	D	Е	FX
6.59	8.12	12.94	15.29	37.18	19.88

Provides: RNDr. Ivan Mojsej, PhD., Mgr. Jozef Kiseľák, PhD.

Date of last modification: 14.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ C

Course name: Mathematical analysis II for informaticians and physicists

MAN3b/10

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 4 / 3 Per study period: 56 / 42

Course method: present

Number of credits: 8

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities: ÚMV/MAN3a/10

Conditions for course completion:

Continuous assessment is taken the form of small tests and two main tests during the semester. Final evaluation is given by continuous assessment (50%), written and oral part of the exam (50%).

Learning outcomes:

The course provides students with the basics of mathematical analysis necessary to study physics and computer science. The students also learn mathematical culture, notation and mathematical way of thinking and expression.

Brief outline of the course:

- 1. Integral calculus of functions of one real variable: a) Indefinite integral primitive function and its properties, techniques of integration; b) Definite Riemann integral definition, elementary properties, calculation methods, classes of integrable functions, applications; c) Improper integral.
- 2. Ordinary differential equations basic concepts, the first order equations (separable, homogeneous, linear, Bernoulli), linear equations of the second order (also with constant coefficients).
- 3. Metric space Euclidean space, some topological properties of points and sets.
- 4. Function of several real variables basic concepts, limits and continuity.
- 5. Differential calculus of functions of several real variables partial derivative, differentiability and total differential (also higher order), Taylor polynomials, directional derivative, local and global extrema, constrained local extrema.
- 6. Double (two dimensional) integral definition, calculation methods, applications.

Recommended literature:

- 1. L. Kluvánek, I. Mišík, M. Švec: Matematika I, II, SVTL, Bratislava, 1959 (in Slovak).
- 2. Z. Došlá, O. Došlý: Diferenciální počet funkcí více proměnných, vysokoškolský učebný text, Masarykova univerzita v Brne, Brno, 2003 (in Czech).
- 3. J. Eliaš, J. Horváth, J. Kajan: Zbierka úloh z vyššej matematiky 2, 3, 4, Alfa, Bratislava, 1971 (in Slovak).
- 4. J. C. Robinson: An introduction to ordinary differential equations, Cambridge University Press, Cambridge, 2004.
- 5. R. E. Williamson, H. F. Trotter: Multivariable mathematics, Prentice Hall (Pearson), Upper Saddle River, 2004.

6. B. S. Thomson, J. B. Bruckner, A. M. Bruckner: Elementary Real Analysis, Prentice Hall (Pearson), Lexington, 2008.

7. J. Stewart: Calculus: Early Transcendentals, Brooks Cole (Thomson), Toronto, 2008.

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 375

A	В	С	D	Е	FX
6.4	7.47	11.47	17.87	40.53	16.27

Provides: Mgr. Jozef Kiseľák, PhD., doc. RNDr. Božena Mihalíková, CSc., RNDr. Jaroslav Šupina, PhD.

Date of last modification: 14.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ Course

MSW/10

Course name: Mathematical software

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 4., 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Tests from both Excel and Maple Given at the basis of partial tests.

Learning outcomes:

To develop student's knowledge and skills to use numerical and grafical representations of data and modelling by solving of various types of mathematical problems in environment of spreadsheet and in environment of system of symbolic calculations Maple.

Brief outline of the course:

The creation and use of formulas with mathematical functions, graphical and numerical solving of equations and systems of equations, utilize of arithmetical, graphical and stochastic models by solving of mathematical problems, linear optimalization. Basic description of Maple software, manipulation of mathematical expressions, finding solutions of equalities and inequalities, mathematical analysis, linear algebra, number, graph and set theory in Maple, graphical possibilities of Maple.

Recommended literature:

- 1. Shingareva, Lizárraga-Celaya: Maple and Mathematica. A problem solving approach for mathematics, Springer Wien NewYork, 2007
- 2. Eberhart: Maple problem solving handbook, University of Kentucky, 2009
- 3. Šťastný: Matematické a statistické výpočty v Microsoft Excelu, Computer Press 2001

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 117

A	В	С	D	Е	FX
17.09	25.64	21.37	23.08	8.55	4.27

Provides: doc. RNDr. Stanislav Lukáč, PhD., RNDr. Daniel Klein, PhD.

 $\textbf{Date of last modification:}\ 14.02.2014$

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Co

Course name: MATLAB and neurocognition

MTL/13

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 0 / 2 Per study period: 0 / 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Intro to programming in MATLAB with focus on its usage in Neural and Cognitive Science.

Brief outline of the course:

Intro to MATLAB: navigation and interaction, variables, vectors, matrices, operators, scripts, functions, toolboxes. Scripts for human-computer interaction in behavioraln experiments. Generation of visual and auditory stimuli. Analysis and visualization of behavioral, neurophyshiological and neuroimaging (fMRI, EEG, MEG) data. Cognitive and neural modeling in MATLAB.

Recommended literature:

- 1. Wallisch et al. MATLAB for Neuroscientists: An Introduction to Scientific Computing in MATLAB. Academic Press 2008.
- 2. Duda, Hart, Stork: Pattern Classification, 2nd Edition, Wiley 2000 Stork, Yom-Tow: Computer Manual in MATLAB to accompany Pattern Classification, 2nd Edition, Wiley, 2004
- 3. Lewandowsky: Computational Modeling in Cognition. Sage, 2011
- 4. Levine: Introduction to Neural and Cognitive Modeling, Psychology Press, 2000 Dayan and Abbott: Theoretical Neuroscience: Computational and Mathematical Modeling of Neural Systems. MIT Press 2005.

Course language:

Notes:

Course assessment

Total number of assessed students: 4

A	В	С	D	Е	FX
25.0	25.0	25.0	25.0	0.0	0.0

Provides: doc. Ing. Norbert Kopčo, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Cour

Course name: Molecular Biology

MOB2/10

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: 3

Recommended semester/trimester of the course: 4.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Familiarize students with the structure, properties and functions of information macromolecules and their work, focusing primarily on the molecular mechanisms of regulation of DNA replication, gene expression and cell cycle.

Brief outline of the course:

Structure and properties of information macromolecules. Molecular structure of chromatin and mitotic and meiotic chromosomes. Dynamics of chromosomes. Replication of chromosomal and extrachromosomal DNA. Repair of DNA damage. Genome of prokaryotic and eukaryotic cells. The human genome. Mobile genetic elements. Transcription and posttranscriptional modifications and editing. Translation and posttranslational modifications. Specific protein degradation. DNA-protein interactions. Regulation of the expression of prokaryotic and eukaryotic genes. Control of the cell cycle.

Recommended literature:

E. Mišúrová: Molekulárna biológia. Učebné texty, PF UPJŠ Košice, 1999

E. Mišúrová, P. Solár: Molekulová biológia. Učebné texty, PF UPJŠ, 2007

S.Rosypal: Úvod do molekulární biologie. Grafex Blansko, Brno, 1999

Alberts, D.Bray, J. Lewis a kol.: Molecular Biology of the Cell, Academic Press, London, 1994

D.P. Clark: Molecular Biology, Elsevier Academic Press, London, 2005

Course language:

Notes:

Course assessment

Total number of assessed students: 0

A	В	С	D	Е	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: doc. RNDr. Peter Solár, PhD.

Date of last modification: 13.02.2014

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚTVŠ/ NJ//13	Course name: Naval Ya	Course name: Naval Yachting			
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	ce rse-load (hours): udy period: 504 esent				
Number of credits: 2					
	ster/trimester of the cou	rse:			
Course level: I., II.					
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	iture:				
Course language:					
Notes:					
Course assessment Total number of asse	ssed students: 2				
	abs n				
100.0 0.0					
Provides: doc. Mgr. I	Rastislav Feč, PhD.				
Date of last modifica	ition: 15.01.2014				
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.				

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚINF/ OP/14	Course name: Odborná	prax
Course type, scope a Course type: Practic Recommended cou Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 2t esent	
Number of credits: 2		
	ster/trimester of the cou	rse:
Course level: I.		
Prerequisities:		
Conditions for cours	se completion:	
Learning outcomes:		
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 3	
abs n		
100.0 0.0		
Provides: Mgr. Alexa	ander Szabari, PhD.	·
Date of last modifica	ation: 06.03.2014	
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.	

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Operating systems

OSY1/11

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., II.

Prerequisities: ÚINF/PAZ1a/10

Conditions for course completion:

Written tests.

Learning outcomes:

The purpose of the operating systems subject is to provide the students how to organize and control hardware and software so that the device is live and behaves in a flexible but predictable way.

Brief outline of the course:

Operating systems structure and components, process, files, threads, CPU processor scheduling, schedule algorithms, interprocess communi-cations, deadlocks, synchronization, multitasking, virtualisation.

Recommended literature:

STALLINGS, W.: Operating Systems. Internal and Design Principles. Pearson, Prentice Hall, 2005.

SILBERSCHATZ, A. et al.: Operating Systems Concepts. Addison-Wesley, Reading MA, 2000.

Course language:

Notes:

Course assessment

Total number of assessed students: 102

A	В	С	D	Е	FX
32.35	6.86	17.65	12.75	19.61	10.78

Provides: doc. Ing. Štefánia Gallová, CSc., RNDr. Peter Gurský, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ **Course name:** Oracle database administration ORSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N Prerequisities: ÚINF/ASSP/14 or ÚINF/SAP1b/06 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Database Overview: database architecture, connecting to the database, using database administration tools, administrating Oracle instances. Space management: administrating "Table Spaces", Performing reorganization of tables, housekeeping and troubleshooting. Backup, Restore and Recovery. **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 11 abs n 90.91 9.09 Provides: RNDr. Štefan Pero Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Overview of basic modules for consultant ZMSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N Prerequisities: ÚINF/ZKSP/14 **Conditions for course completion: Learning outcomes: Brief outline of the course:** User training modules: HR (Human Resources), FI (Financial) + CO (Controlling), MM (Material Management). **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 0 abs n 0.0 0.0 Provides: RNDr. Štefan Pero Date of last modification: 17.02.2014

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	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚFV/ FPI/15	Course name: Physics for Informaticists I
Course type, scope a Course type: Lectur Recommended cour Per week: 2/1 Per Course method: pre	re / Practice rse-load (hours): study period: 28 / 14
Number of credits: 4	
Recommended seme	ster/trimester of the course: 4.
Course level: I.	
Prerequisities:	
1. in the 6th week 2.in the 12th week Final assessment is b - oral examination	ng the calculus lessons
Learning outcomes: Basic knowledge abo and fluids and gases.	out the mechanics of point mass, system of particles, rigid body, elastic bodies
relativity in the classi	he vector algebra. Standards and units. Kinematics. Dynamics. The principle of ical mechanics. Gravitation. Mechanics of many-particle systems. The motion rmation, elasticity. Mechanics of fluids and gases.
Veis Š., Maďar J., Ma Bratislava, 1987. Fuka J., Široká M.: C Hlavička A., a kol.: F Hajko V., a kol.:Fyzil Halliday, D., Resnick Halliday, D., Resnick 2000	ature: abó J.: Základy fyziky, VEDA, Bratislava 1983. artišovits V.: Všeobecná fyzika I., Mechanika a molekulová fyzika, ALFA Obecná fyzika I / skriptum /, PF Univ. Palackého, Olomouc 1983. Fyzika pre pedagogické fakulty, SPN, Praha 1971. ka v príkladoch, ALFA Bratislava 1983. ka, R., Walker, J.: Fyzika, časť 1 Mechanika, VUT Brno, 2000 ka, R., Walker, J.: Fyzika, časť 2 Mechanika - Termodynamika, VUT Brno, a, ALFA Bratislava 1982.
Course language: Slovak	

Notes:

Course assessm Total number o	nent f assessed studen	ts: 9			
A	В	С	D	Е	FX
33.33	11.11	22.22	11.11	22.22	0.0
Provides: doc. RNDr. Zuzana Ješková, PhD.					

110vides: doe. Krybi. Zazana Jeskova, i m

Date of last modification: 05.03.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/

Course name: Physics for Informatics

IFY/09

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Two written tests.

Combination of the results of two tests.

Learning outcomes:

Introduction to classical and modern physics.

Brief outline of the course:

The lecture provides an introduction to classical and modern physics, the basics of magnetism and magnetic recording. Popular form explain the theory of relativity, quantum physics and Maxwell's equations.

Recommended literature:

J. B. Seaborn, Understanding the Universe: An Introduction to Physics and Astrophysics, Springer 1997

Course language:

Notes:

Course assessment

Total number of assessed students: 114

A	В	С	D	Е	FX
31.58	26.32	27.19	13.16	1.75	0.0

Provides: doc. RNDr. Ján Füzer, PhD.

Date of last modification: 18.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚFV/ **Course name:** Physics Practical for Informatics IFS1a/07 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. **Prerequisities:** ÚFV/IFY1b/07 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 20 \mathbf{C} A В D Е FX 70.0 25.0 5.0 0.0 0.0 0.0 Provides: doc. RNDr. Rastislav Varga, DrSc., RNDr. Erik Čižmár, PhD.

Date of last modification: 18.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Principles of computers PRP2/14 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:** 2. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 66 \mathbf{C} A В D Е FX 34.85 10.61 19.7 13.64 19.7 1.52 Provides: doc. Ing. Štefánia Gallová, CSc. Date of last modification: 19.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Princípy informačnej bezpečnosti IBdi/13 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., 5. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 13 \mathbf{C} Α В D Е FX 53.85 15.38 0.0 15.38 7.69 7.69 Provides: doc. RNDr. Jozef Jirásek, PhD., RNDr. František Galčík, PhD. Date of last modification: 03.02.2014

	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚINF/ PAZ1a/10	Course name: Programming, algorithms, and complexity
Course type, scope a Course type: Lectur Recommended cour Per week: 3 / 4 Per Course method: pre	re / Practice rse-load (hours): study period: 42 / 56
Number of credits: 8	3
Recommended seme	ster/trimester of the course: 1.
Course level: I., II.	
Prerequisities:	
Conditions for cours	e completion:
students basics of algoriented programming habits	equire having any programming experiences. The aim of the course is to teach gorithms and programming. The methodology used in the course is "object ag first". The primary goal of the course is to teach students to make good and a good object-oriented design. The programming language used in the rofessional IDE Eclipse.
objects, simple turtle logical expressions, rastrings, arrays, instar Second part of the coand directories, convectors hierarcheclasses and methods Comparable and ContinkedList, interface interface Map and	e (with turtle graphics): New Eclipse project, interactive communication with graphics, making user methods, local variables, variable types, arithmetic and andom numbers, conditions, loops for and while, debugging, references, chars, nee variables, mouse events, simple array algorithms. Furse (without turtle graphics): Exceptions, using try-catch-finally block, files version from string variables, encapsulation, constructors with parameters, ny, getters and setters, interfaces, inheritance and polymorphism, abstract packages, visibility modifiers, sorting using Arrays.sort() and interfaces inparator, Java Collections Framework: autoboxing, interface List, ArrayList, e Set and class HashSet, methods equals() and hashCode(), for-each loop, class HashMap, custom Exceptions, rethrowing exceptions, exceptions' exceptions, Errors, static variables and methods.
· '	nture: g in Java, Pearson, 2006 g, B.: Head First Java, O'Reilly Media; 2nd edition, 2005
Course language:	

Notes:

Course assessment					
Total number of assessed students: 421					
A	В	С	D	Е	FX
15.68	7.84	12.35	15.2	12.59	36.34

Provides: RNDr. Peter Gurský, PhD., RNDr. František Galčík, PhD., PaedDr. Ján Guniš, PhD., RNDr. Zuzana Bednárová, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Programming, algorithms, and complexity

PAZ1b/03

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 4 Per study period: 28 / 56

Course method: present

Number of credits: 7

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities: ÚINF/PAZ1a/10 or ÚFV/POF1b/99

Conditions for course completion:

Oral and practical examination.

Learning outcomes:

To understand basic principles of algorithm design (including basic data structures). To apply these principles and knowledge to solve simple algorithmic tasks efficiently.

Brief outline of the course:

Recursion, introduction to time complexity and O-notation, binary search and sorting algorithms (SelectionSort, QuickSort, MergeSort, HeapSort), basic data structures (linked list, stack, queue, trees, binary search trees) – implementation and applications, backtracking, divide and conquer, dynamic programming, greedy algorithms, basic graph algorithms (DFS, BFS, Dijkstra's algorithms, Bellman-Ford algorithm, Floyd-Warshall algorithm, topological sorting), introduction to stringology.

Recommended literature:

CORMEN, T.H., LEISERSON, Ch.E., RIVEST, R.L, STEIN, C. Introduction to Algorithms. The MIT Press, 2009.

KLEINBERG, J., TARDOS, E.: Algorithm Design, Cornell University, Addison Wesley, New York, 2006.

Course language:

Notes:

Course assessment

Total number of assessed students: 991

A	В	С	D	Е	FX
11.2	6.26	9.89	20.18	24.22	28.25

Provides: RNDr. František Galčík, PhD., PaedDr. Ján Guniš, PhD., RNDr. Zuzana Bednárová, PhD., Mgr. Matej Nikorovič, doc. RNDr. Gabriela Andrejková, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Programming, algorithms, and complexity

PAZ1c/03

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 4 Per study period: 56

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To grasp object-oriented principles of larger application and algorithm design.

Brief outline of the course:

Contract as a basic principle of class design. Designing class associations. Managing associations between object: Factories, Singletons, Dependency Injection. Class hierarchy design. Basic principles of GUI design – models, views, controllers and implementation in Swing. Creating three-layered applications.

Recommended literature:

SIERRA, K., BATES, B.: Head First Java (2nd Edition), 2005

ECKEL, B.: Thinking in Java (4th Edition), 2006

Course language:

Notes:

Course assessment

Total number of assessed students: 231

A	В	С	D	Е	FX
37.66	20.35	17.32	10.39	9.52	4.76

Provides: RNDr. Róbert Novotný, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cour

Course name: Programming language C

JAC1/11

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities: ÚINF/PAZ1a/10

Conditions for course completion:

Practics attendance and activity. Home assignment

Final project.

Learning outcomes:

Become skilled in language C and get knowledge of the theoretical concepts that are used in the development in low-level software.

Brief outline of the course:

Procedural paradigm in C, low-level concepts and their implementation, nonautomatic memory handling and allocation. Data structures in C.

Recommended literature:

- 1. A. D. Marshall: Programming in C: UNIX System Calls and Subroutines using C. [online] http://www.cs.cf.ac.uk/Dave/C/CE.html
- 2. J. Maasen: C for Java Programmers. [online] http://www.cs.vu.nl/~jason/college/dictaat.pdf
- 3. Bruce Eckel: Thinking in C. [online] http://mindview.net/CDs/ThinkingInC

Course language:

Notes:

Course assessment

Total number of assessed students: 92

A	В	С	D	Е	FX
53.26	22.83	6.52	2.17	10.87	4.35

Provides: RNDr. Peter Gurský, PhD., RNDr. Zuzana Bednárová, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Co

Course name: Programming of robotic kits

PRS/11

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 0/3 Per study period: 0/42

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 6.

Course level: L

Prerequisities:

Conditions for course completion:

Assessment of individual work on computers for a number of sub-assignments - robotic miniproject.

Creating and presenting a programmed robotic model including documentation.

Learning outcomes:

- To acquire an overview of robotic sets and robotic programming environments.
- To acquire skills in constructing and programming robots in selected robotic programming environments.

Brief outline of the course:

Robotic set (Lego Mindstorms) - components, engines, sensors, basics of constructing of the mechanical parts of the model. Programming robotic models in languages NXT-G and NXC - branching statements, loops, blocks, events, parallel processes that work with sensors, datalogging, communication among several NXT bricks. Creating mini-project (eg, traffic lights, parking, dance creations, guitar, smart thermometer, measuring distance). Robotic competition, ideas for demanding projects. Creation and presentation of the final project - a programmed robot model (eg, navigate a maze, sports, paramedic) including documentation.

Recommended literature:

- 1. BUMGARDNER, J. (2007) The Origins of Mindstorms. Wired, 2007. http://www.wired.com/geekdad/2007/03/the_origins_of_/
- 2. Carnegie Mellon. Robotics Academy. http://www.education.rec.ri.cmu.edu/
- 3. KABÁTOVÁ, M. a kol. (2010) Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Didaktika robotických stavebníc. Bratislava : ŠPÚ, 2010. ISBN 978-80-8118-070-5
- 4. KABÁTOVÁ, M. PEKÁROVÁ, J. (2008) Hra = učenie sa. LEGO a robotika vo vyučovaní budúcich učiteľov. Didinfo 2008. Banská Bystrica: FPV UMB. ISBN 978-80-8083-556-9
- 5. PETROVIČ, P. BALOGH, R. PEKÁROVÁ, J. (2008) Robotické vzdelávacie iniciatívy. In: Informatika v škole a v praxi. Zborník 4. ročníka medzinárodnej konferencie. Ružomberok: Pedagogická fakulta Katolíckej univerzity v Ružomberku, str. 239 248. ISBN 978-80-8084-362-5

Course language:						
Notes:	Notes:					
Course assessment Total number of assessed students: 35						
A	A B C D E FX					
51.43 17.14 17.14 0.0 0.0 14.29						
Provides: RNDr. Ľubomír Šnajder, PhD., RNDr. Jozef Studenovský, CSc.						

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Project I. PRO1a/13 Course type, scope and the method: Course type: Practice **Recommended course-load (hours):** Per week: 4 Per study period: 56 Course method: present Number of credits: 4 Recommended semester/trimester of the course: 4. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 114 C Α В D Е FX 69.3 15.79 14.04 0.0 0.0 0.88 Provides: Mgr. Alexander Szabari, PhD. Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Project II. PRO1b/13 Course type, scope and the method: Course type: Practice **Recommended course-load (hours):** Per week: 4 Per study period: 56 Course method: present Number of credits: 4 **Recommended semester/trimester of the course:** 5. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 72 C A В D Е FX 56.94 13.89 20.83 2.78 4.17 1.39 Provides: Mgr. Alexander Szabari, PhD., doc. Ing. Štefánia Gallová, CSc. Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Project management in SAP ERP PMSP/14 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: Course level: I., II., N Prerequisities: ÚINF/ZMSP/14 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Business process overview in SAP, project structure definition, project planning, resource planning, costs and revenues, record project activities. **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 0 abs n 0.0 0.0 Provides: RNDr. Štefan Pero Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Projektový manažment PMdi/13 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., 5. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 6 C Α В D Е FX 33.33 33.33 16.67 16.67 0.0 0.0 Provides: Mgr. Alexander Szabari, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.

Date of last modification: 03.02.2014

University: P. J. Safá	University: P. J. Safárik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚINF/ PBS/07	ID: ÚINF/ Course name: Pro-seminar to bachelor thesis				
Course type, scope a Course type: Practic Recommended cou Per week: 1 Per stu Course method: pre	ce rse-load (hours): idy period: 14				
Number of credits: 1					
Recommended seme	ester/trimester of the cours	e: 4.			
Course level: I.					
Prerequisities:					
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the of The seminar is orient		to preparations of Bachelor theses.			
Recommended litera	ature:				
Course language:					
Notes:					
Course assessment Total number of asse	ssed students: 184				
abs n					
90.22 9.78					
Provides: RNDr. Ton	náš Horváth, PhD., RNDr. F	rantišek Galčík, PhD.			
Date of last modifica	ntion: 03.02.2014				
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.				

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/ | Course name: Regional geography of Slovakia (human geography)

GSR2/10

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 3 Per study period: 42

Course method: present

Number of credits: 4

Recommended semester/trimester of the course: 4., 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Historical development of the territory of Slovakia, population, its national, linguistic and religious structure at various regional levels, types of urban and rural settlements, administrative division of Slovakia and its historical development, economy of the country - agriculture, industry, transport system, education institutions and tourism in Slovakia.

Recommended literature:

Dubcová, A. a kol., 2008: Geografia Slovenska. Učebnica geografie pre regionálny rozvoj. 350 p. Lauko, V., Tolmáči, L., Dubcová, A., 2006: Humánna geografia Slovenskej republiky, Kartprint Bratislava, 200 p.

Matlovič, R., 1996: Vybrané kapitoly z regionálnej geografie Slovenkej republiky, Obyvateľstvo a sídla. Metodické centrum, Prešov, 81 p.

Michaeli, E., 1996: Vybrané kapitoly z regionálnej geografie Slovenskej republiky, Cestovný ruch. Metodické centrum, Prešov, 65 p.

Michaeli, E. 1996: Vybrané kapitoly z regionálnej geografie Slovenskej republiky, Priemysel, poľnohospodárstvo. Metodické centrum, Prešov.

Course language:

Notes:

Course assessment

Total number of assessed students: 161

A	В	С	D	Е	FX
8.7	15.53	30.43	21.74	22.36	1.24

Provides: RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 11.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cou

Course name: SAP applications in public administration/company

APSP/14

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 4

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities: ÚINF/ZSSP/14

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Description of the processes and procedures in the area of SAP budgeting, financing and asset management, SAP for human resources and payroll, SAP Administrative Office system, outputs - reporting in the SAP environment, output options, training outputs, output processing, and exporting data further processing in the environment of Excel, Word ..., inputs - import data in the SAP environment, preparation of input data, the procedure for importing data.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 27

abs	n
100.0	0.0

Provides: RNDr. Štefan Pero, RNDr. Edita Vojtová

Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ **Course name:** SAP basics for consultant ZKSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N Prerequisities: ÚINF/ZTSP/14 or ÚINF/SAP1a/06 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Organizational structure and processes (integration of SAP modules). Master records and their importance for the process. Customizing and transports, Standard reporting + Queries, Programming tools - migration, connection to external systems, BADIs, business functions, CMOD, SAP OSS, information retrieval. **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 0 abs n 0.0 0.0 Provides: RNDr. Štefan Pero

Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: SAP basics for user ZSSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N Prerequisities: ÚINF/ZTSP/14 or ÚINF/SAP1a/06 **Conditions for course completion: Learning outcomes: Brief outline of the course:** Characteristics of modern systems, effective solutions for the management and operation of institutions, fundamental processes in the institution of government, support for the process from the system. SAP user roles and profiles, case studies in terms of deployment of SAP company. **Recommended literature: Course language:** Notes: **Course assessment** Total number of assessed students: 63 abs n 1000 0.0

Provides: RNDr. Štefan Pero, RNDr. Edita Vojtová

Date of last modification: 17.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: SAP for advanced users PUSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 Recommended semester/trimester of the course: Course level: I., II., N **Prerequisities:** ÚINF/APSP/14 **Conditions for course completion: Learning outcomes: Brief outline of the course:** One of the training modules: HR (Human Resources), FI (Financial) + CO (Controlling), MM (Material Management). **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 27 abs n 100.0 0.0 Provides: RNDr. Štefan Pero, RNDr. Edita Vojtová Date of last modification: 17.02.2014

Page: 111

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ **Course name:** SAP overview ZTSP/14 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 2 / 1 Per study period: 28 / 14 Course method: present Number of credits: 4 **Recommended semester/trimester of the course:** Course level: I., II., N **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course:** Defining mySAP Technology (Products, Innovations provided by SAP), Navigation (Logon, Screen Design, Calling Functions), System Kernel (Client/Server Architecture, Structure of an SAP system, Processing in SAP), Communication and Integration Technologies (Remote Function Calls, Internet Technologies). **Recommended literature:** Course language: **Notes: Course assessment** Total number of assessed students: 156 abs n 100.0 0.0 Provides: RNDr. Štefan Pero, RNDr. Edita Vojtová Date of last modification: 17.02.2014 **Approved:** prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: ÚTVŠ/ ÚTVŠ/CM/13					
Course type, scope a Course type: Practic Recommended cou Per week: 36 Per st Course method: pre	ce rse-load (hours): sudy period: 504 esent				
Number of credits: 2					
	ster/trimester of the cours	e: 			
Course level: I., II.					
Prerequisities:					
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the c	course:				
Recommended litera	nture:				
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. Viliam Geffert, DrSc.					

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ Co

Course name: Secrets of microworld

TMS/10

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 3

Recommended semester/trimester of the course: 4., 6.

Course level: I.

Prerequisities:

Conditions for course completion:

term project

Learning outcomes:

To give a review of the recent results form the elementary particle physics for non-physicists layman level.

Brief outline of the course:

Introduction to the topics. Atom, nucleus and the basic forces in Nature. Quarks and classification of elementary particles. Methods and approaches in micro objects research. Contenporary experiments un subnuclear physics - BNL, CERN, JINR Dubna.

Recommended literature:

- 1.Frank Close: The cosmic onion, Heinemann Educational Books Ltd, 1990
- 2. Ljubimov A., Kiss D.: Vvedenie v experimental'nuju fiziku častic, Dubna, 1999
- 3. J.Žáček: Úvod do fyziky elementárních částic, Karolinum, Praha, 2005
- 4. R. Mackintosh et al.: Jádro cesta do srdce hmoty, Academia, Praha, 2003

Course language:

slovak

Notes:

Course assessment

Total number of assessed students: 58

A	В	С	D	Е	FX
72.41	15.52	12.07	0.0	0.0	0.0

Provides: doc. RNDr. Jozef Urbán, CSc., prof. RNDr. Stanislav Vokál, DrSc., RNDr. Janka Vrláková, PhD.

Date of last modification: 11.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

Page: 114

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cou

Course name: Seminar in informatics

BSI1a/04

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.

Prerequisities:

Conditions for course completion:

Presentation of algorithms for problems of a higher complexity. Presentation of results connecting to the bachalor theses, known and own results.

Learning outcomes:

To inform students about new results in informatics with the goal using them in bachalor theses.

Brief outline of the course:

The seminar has a connection to the bachalor theses and to the repetitorium in informatics. Students present results of their work once in semester at least.

Recommended literature:

Sources of problems:

www.ksp.sk

www.ksp.sk/MOP/

Special research literature according to bachalor theses.

Course language:

Notes:

Course assessment

Total number of assessed students: 171

A	В	С	D	Е	FX
17.54	16.96	24.56	18.13	20.47	2.34

Provides: doc. RNDr. Gabriela Andrejková, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Seminar in informatics

BSI1b/04

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.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To inform students about new results in informatics with the goal using them in bachalor theses. To repeat important knowledges in informatics.

Brief outline of the course:

The seminar has a connection to the bachalor theses and to the repetitorium in informatics. Students present results of their work once in semester at least. To get credits, it is necessary to get the developed number of points from repetitorium.

Recommended literature:

Sources of problems:

www.ksp.sk

www.ksp.sk/MOP/

Special research literature according to bachelor theses.

Course language:

Notes:

Course assessment

Total number of assessed students: 98

A	В	С	D	Е	FX
22.45	21.43	26.53	18.37	10.2	1.02

Provides: doc. RNDr. Gabriela Andrejková, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ **Course name:** Seminar to operational systems SOS1/13 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 84 C Α В D Е FX

Provides: RNDr. Róbert Novotný, PhD., Mgr. Maroš Andrejko, RNDr. Peter Gurský, PhD.

2.38

7.14

5.95

10.71

Date of last modification: 03.02.2014

53.57

Approved: prof. RNDr. Viliam Geffert, DrSc.

20.24

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Software and computer systems

BIP/06

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.

Prerequisities: (ÚINF/PAZ1b/03 or ÚINF/ePAZ1b/11 or ÚINF/PAZ1c/03) and (ÚINF/DBS1b/03 or ÚINF/eDBS1b/11) and (ÚINF/PSE1/03 or ÚINF/ePSE1/11 or ÚINF/PSIN/13) and (ÚINF/OSY1/11 or ÚINF/eOSY1/11)

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 107

A	В	С	D	Е	FX
31.78	16.82	16.82	14.02	16.82	3.74

Provides:

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cours

Course name: Software engineering

SWI1a/04

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.

Prerequisities: ÚINF/DBS1a/03

Conditions for course completion:

Learning outcomes:

To provide information concerning the principal activities related to the development of software products.

Brief outline of the course:

System, subsystem, software system. Software processes. Introduction to project management. Requirements gathering. Software modelilng. Software architectures. Software development methodologies. Verification and validation. Resource management.

Recommended literature:

- 1. BERKUN, S. The Art Of Project Management. O Reilly, 2005.
- 2. BJORNER, D. Software engineering 1,2,3. Springer-Verlag Berlin, 2006.
- 3. SOMMERVILLE, I. Software Engineering. Addison-Wesley, 2007.

Course language:

Notes:

Course assessment

Total number of assessed students: 189

A	В	С	D	Е	FX
12.7	13.76	22.22	21.16	29.1	1.06

Provides: doc. RNDr. Gabriel Semanišin, PhD., Mgr. Alexander Szabari, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Software engineering

SWI1b/10

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.

Prerequisities: ÚINF/SWI1a/04

Conditions for course completion:

Learning outcomes:

To learn principles and to developed fundamental skills concerning software modelling, development and implementation.

Brief outline of the course:

Software modelling in UML - the syntax and the semantics of UML diagrams. Foundation of Model Driven Architecture. Selected aspects of project management. Selected legal aspects of SW engineering. Pattern design.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 86

A	В	С	D	Е	FX
18.6	16.28	18.6	16.28	27.91	2.33

Provides: Mgr. Alexander Szabari, PhD., doc. RNDr. Gabriel Semanišin, PhD.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

Page: 120

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Course nan

BZP1a/06

Course name: Special seminar to bachelor thesis

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities: ÚINF/PBS/07

Conditions for course completion:

Learning outcomes:

To pick up methods and procedures of solving bigger problems. To show a capability independently and creatively to solve complex problems. To learn writing a solution - starting points, reasons of chosing methods and documentation of a solution.

Brief outline of the course:

Seminar is connected to subjects Bachalor thesis in informatics L.

Recommended literature:

Special and research literature connected to Bachalor theses according to recommendations of supervisor.

Katuščák, D.: Ako písať vysokoškolské a kvalifikačné práce, 2. vydanie Bratislava, 1998 ISO 690: 1987 Documentation - Bibliographic references. Content, form and structure.

ISO 2145: 1978 Documentation - Numbering of divisions and subdivisions in written documents.

Course language:

Notes:

Course assessment

Total number of assessed students: 16

abs	n
81.25	18.75

Provides: RNDr. Tomáš Horváth, PhD., RNDr. František Galčík, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cours

Course name: Special seminar to bachelor thesis

BZP1b/06

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.

Prerequisities: ÚINF/BZP1a/06

Conditions for course completion:

Learning outcomes:

To pick up methods and procedures of solving bigger problems. To show a capability independently and creatively to solve complex problems. To learn writing a solution - starting points, reasons of chosing methods and documentation of a solution.

Brief outline of the course:

Seminar is connected to subjects Bachalor thesis in informatics L.

Recommended literature:

Special and research literature connected to Bachalor theses according to recommendations of supervisor.

Katuščák, D.: Ako písať vysokoškolské a kvalifikačné práce, 2. vydanie Bratislava, 1998

ISO 690: 1987 Documentation - Bibliographic references. Content, form and structure.

ISO 2145: 1978 Documentation - Numbering of divisions and subdivisions in written documents.

Course language:

Notes:

Course assessment

Total number of assessed students: 15

abs	n
93.33	6.67

Provides: RNDr. Tomáš Horváth, PhD., RNDr. František Galčík, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ | Course name:

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.

Prerequisities:

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

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ Cours

Course name: Sports Activities II.

TVb/11

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.

Prerequisities:

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

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ Cours

Course name: Sports Activities III.

TVc/11

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.

Prerequisities:

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

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚTVŠ/ Course name: Sports Activities IV. TVd/11 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:**

Notes:

Course assessment

Course language:

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

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Student scientific conference SVK1/00 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. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 101 C Α В D Е FX 100.0 0.0 0.0 0.0 0.0 0.0 **Provides:** Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Safá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚTVŠ/ LKSp//13	Course name: Summer Course-Rafting of TISA River			
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	ce rse-load (hours): udy period: 504			
Number of credits: 2	2			
Recommended seme	ster/trimester of the cours	e:		
Course level: I., II.				
Prerequisities:				
Conditions for cours	se completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
Course assessment Total number of asse	ssed students: 63			
	abs	n		
	41.27	58.73		
Provides: Mgr. Peter	Bakalár, PhD.			
Date of last modifica	ition: 15.01.2014			
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.			

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚTVŠ/ KP/12	Course name: Survival C	ourse
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	ce rse-load (hours): udy period: 504 esent	
Number of credits: 2		
Recommended seme	ster/trimester of the cour	se:
Course level: I., II.		
Prerequisities:		
Conditions for cours	se completion:	
Learning outcomes:		
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 185	
	abs	n
	41.62	58.38
Provides: Mgr. Mare	k Valanský	
Date of last modifica	ition: 15.01.2014	
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.	

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Symbolic logic

SLO1a/06

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 4.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To understand basic notions of sentence and predicate logic - sentence, sentence scheme, provability, satisfiability, term, formula.

Brief outline of the course:

Predicate logic – logic language, syntax and semantics, term, formula. Axioms, proof, provability. Interpretation, truth, model. Correctness of the predicate logic.

Recommended literature:

GOLDSTERN M., JUDAH H.: The Incompleteness Phenomenon, A New Course in

Mathematical Logic, A K Peters, Wellesley, Massachusetts, 1995

http://cs.ics.upjs.sk/~krajci/skola/vyucba/ucebneTexty/logika/logika.pdf

Course language:

Notes:

Course assessment

Total number of assessed students: 324

A	В	С	D	Е	FX
18.21	7.41	13.58	12.35	33.33	15.12

Provides: doc. RNDr. Stanislav Krajči, PhD.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Viliam Geffert, DrSc.

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University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Course I

SLO1b/06

Course name: Symbolic logic

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities: ÚINF/SLO1a/06

Conditions for course completion:

Learning outcomes:

To understand basic notions of predicate logic – inductive strutures, completeness.

Brief outline of the course:

Boolean algebras. Syntactic model, completeness of predicate logic. Inductive structures in general.

Recommended literature:

GOLDSTERN M., JUDAH H.: The Incompleteness Phenomenon, A New Course in

Mathematical Logic, A K Peters, Wellesley, Massachusetts, 1995

http://cs.ics.upjs.sk/~krajci/skola/vyucba/ucebneTexty/logika/logika.pdf

Course language:

Notes:

Course assessment

Total number of assessed students: 41

A	В	С	D	Е	FX
73.17	9.76	0.0	7.32	7.32	2.44

Provides: doc. RNDr. Stanislav Krajči, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: System programming

SPR1a/09

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: 6.

Course level: I.

Prerequisities: ÚINF/JAC1/11

Conditions for course completion:

Learning outcomes:

Provide and demonstrate basic concepts of Android system programming.

Brief outline of the course:

Introduction to programming in OS Android.

Recommended literature:

- 1. Mark L. Murphy: The Busy Coder's Guide to Android Development. CommonsWare, LLC, 2009. ISBN: 978-0981678009
- 2. W. Frank Ableson, Robi Sen, Chris King and C. Enrique Ortiz: Android in Action Third Edition. Manning, 2011. ISBN 9781617290503

Course language:

Notes:

Course assessment

Total number of assessed students: 62

A	В	С	D	Е	FX
33.87	12.9	11.29	11.29	11.29	19.35

Provides: RNDr. Róbert Novotný, PhD., doc. RNDr. Gabriela Andrejková, CSc.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Typographical systems

TYS1/06

Course type, scope and the method:

Course type: Practice

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 4., 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

To provide the basic information on principles for typesetting of documents containing mathematical formulas in Plain TeX, AMS-TeX, and LaTeX.

Brief outline of the course:

Typesetting of a plain text, special text symbols, using of text fonts. TeX macros. Enumerations in text and footnote command. Parameter setting determining the appearance of the pages. Typesetting of mathematical formulas in text and displays, aligning formulas. Definitions of TeX macros. Making tables and pictures. Definitions, theorems, and proofs in a mathematical document. Contents, bibliography, sections in a document.

Recommended literature:

Course language:

Notes:

Course assessment

Total number of assessed students: 223

A	В	С	D	Е	FX
46.64	18.39	21.08	5.38	7.62	0.9

Provides: doc. RNDr. Stanislav Krajči, PhD.

Date of last modification: 03.02.2014

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Web a návrh používateľ ských rozhraní WBdi/13 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., 5. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 61 C Α В D Е FX 11.48 8.2 9.84 18.03 16.39 36.07 Provides: RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD. Date of last modification: 03.02.2014 Approved: prof. RNDr. Viliam Geffert, DrSc.

University: P. J. Safá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚTVŠ/ ZKLS//13	· · · · · · · · · · · · · · · · · · ·			
Course type, scope a Course type: Practic Recommended cour Per week: 36 Per st Course method: pre	ce rse-load (hours): udy period: 504			
Number of credits: 2				
Recommended seme	ster/trimester of the cours	e:		
Course level: I., II.				
Prerequisities:				
Conditions for cours	se completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	nture:			
Course language:				
Notes:				
Course assessment Total number of asse	ssed students: 59			
	abs	n		
	25.42	74.58		
Provides: PaedDr. Im	nrich Staško, doc. PhDr. Ivan	ı Šulc, CSc.		
Date of last modifica	ition: 15.01.2014			
Approved: prof. RNI	Dr. Viliam Geffert, DrSc.			

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚFV/ Course name: Zdroje röntgenového žiarenia a ich využitie vo fyzike, **ZRZ/10** biológii a materiálovom výskume Course type, scope and the method: Course type: Lecture **Recommended course-load (hours):** Per week: 2 Per study period: 28 Course method: present Number of credits: 3 **Recommended semester/trimester of the course:** 3., 5. Course level: I. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Notes:** Course assessment Total number of assessed students: 22 C Α В D Е FX 31.82 40.91 18.18 4.55 4.55 0.0 Provides: RNDr. Štefan Michalik, PhD., Ing. Karel Saksl, DrSc. Date of last modification: 18.02.2014

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