

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ABSP/14	<b>Course name:</b> ABAP basics
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b> 3., 5.	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZTSP/14 or ÚINF/SAP1a/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 24	
abs	n
95.83	4.17
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 18.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ OPSP/14	<b>Course name:</b> ABAP object and dialog programming
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 1 <b>Per study period:</b> 42 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/RASP/14	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> Screen, function codes, local and global classes, inheritance, polymorphism.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 20	
abs	n
50.0	50.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 18.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ RASP/14	<b>Course name:</b> ABAP reporting
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ABSP/14 or ÚINF/ABA/08	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 20	
abs	n
80.0	20.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 18.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> CJP/ PFAJAKA/07	<b>Course name:</b> Academic English
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> combined, present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> 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	
<b>Learning outcomes:</b> 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.	
<b>Brief outline of the course:</b> 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	
<b>Recommended literature:</b> 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	

<p>Olsen, A. : Active Vocabulary, Pearson, 2013  www.bbclearningenglish.com  Cambridge Academic Content Dictionary, CUP, 2009</p>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b>					
Total number of assessed students: 292					
A	B	C	D	E	FX
29.11	22.26	16.1	11.3	8.22	13.01
<b>Provides:</b> PaedDr. Gabriela Bednáriková					
<b>Date of last modification:</b> 06.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/SOP1/13		<b>Course name:</b> Administration and security of computer networks			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/SKB1/13					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ ADL1/13		<b>Course name:</b> Administration of GNU/Linux			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/AOS1/07					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> RNDr. PhDr. Peter Písarčík					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

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



## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ AOS1/07		<b>Course name:</b> Administration of OS			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/OSY1/11					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To be able to install Linux based system, divide disks, to know how to install, configure and manage several network daemons.					
<b>Brief outline of the course:</b> Introduction to OS Linux, history, communication interfaces, directory structure, devices, user administration, UID, GID, permissions, text editors, common commands, installation, LILO, GRUB, configuration after installation, division of disk space, mounting, backups, starting system, crontab, network connection configuration, network monitoring, firewall. Daemons and systems services SSH, Apache, FTP, Samba, NFS, NTP, postfix/sendmail, DHCP, DNS. Compiling the Linux core, configuration, testing.					
<b>Recommended literature:</b> NEMETH, E., SNYDER, G., HEIN, T. R.: Linux Administration Handbook, Prentice Hall PTR, 2002 SIEVER, E., WEBER, A., FIGGINS, S., LOVE, R., ROBBINS, A.: Linux in a Nutshell, 5th Edition, 2005					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 64					
A	B	C	D	E	FX
51.56	23.44	3.13	6.25	7.81	7.81
<b>Provides:</b> RNDr. Peter Gurský, PhD., RNDr. JUDr. Pavol Sokol, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ASSP/14	<b>Course name:</b> Administration of SAP system
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b> 4., 6.	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZLSP/14	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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 Tablespace).	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 11	
abs	n
100.0	0.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ADW1/13	<b>Course name:</b> Administration of Windows
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 5.	
<b>Course level:</b> I.	
<b>Prerequisites:</b> ÚINF/OSY1/13 and ÚINF/SOS1/13	
<b>Conditions for course completion:</b> Practics activity, home assignment, test. Final test.	
<b>Learning outcomes:</b> Deep insight into system concepts and components of operating system Windows along with the practical techniques concerning with configuration and management corresponding to the professional administrator level. Completing the course allows to become oriented and experienced in the Active Directory administration, net services configuration and management and in the virtualization concepts.	
<b>Brief outline of the course:</b> Active Directory infrastructure and its management and configuration. Zone configuration, DNS setup, replication. Trust configuration. Roles and services. Account management, group policy, auditing. Certification authority and management. Network configuration and network services. DHCP, routing, firewall, remote access configuration. Monitoring and security breach handling. Licences for multiple remote access. Website configuration and management. FTP and mail server configuration. Data Storage configuration, filesystems and backup, network services. Installing and configuring devices, monitoring system health and settings. System log. Creating system images and image recovery. Installing and activating distribution. Virtualization support, installing and configuring virtual machines. Configuring access to network, memory and disk resources. Clustering.	
<b>Recommended literature:</b> 1. J. C. Mackin, T. Northrup: MCTS self-paced training kit (exam 70-642) : configuring Windows server 2008 network infrastructure, Microsoft Press, 2008, ISBN 0-7356-2512-3. 2. S. Reimer, M. Mulcare, C. Kezema, B. Wright: Windows server 2008 Active Directory resource kit, Microsoft Press, 2008, ISBN 0-7356-2515-8. 3. D. Holme: Windows administration resource kit: productivity solutions for IT professionals, Microsoft Press, 2008, ISBN 0-7356-2431-3.	
<b>Course language:</b>	
<b>Notes:</b>	

<b>Course assessment</b>					
Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> RNDr. Róbert Novotný, PhD., PaedDr. Ján Guniš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ ANM/13		<b>Course name:</b> Applications of Numerical Methods			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Continuous evaluation is based on students' activity in the classroom and work on assignments. Examination					
<b>Learning outcomes:</b> To acquaint students with basic numerical methods of calculus and algebra, which are necessary for the subsequent course of computational physics.					
<b>Brief outline of the course:</b> Computational solutions of physical problems and computational errors. Approximation and interpolation of functions. Fast Fourier transform. Linear systems of equations - direct and iterative methods. Nonlinear systems of equations. Conditions of convergence and assesment of error. Numerical derrivatives and quadrature. Matrix operations, determinants and inverse matrices. Eigenvalues and eigenvectors - partial and complete problem.					
<b>Recommended literature:</b> 1. C. Pozrikidis: Numerical Computation in Science and Engineering, Oxford University Press, 1998. 2. R.W. Hamming: Numerical Methods for Scientists and Engineers, Dover, 1973. 3. A.L. Garcia: Numerical Methods for Physics, Prentice-Hall, 1994.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 3					
A	B	C	D	E	FX
0.0	0.0	0.0	66.67	33.33	0.0
<b>Provides:</b> doc. RNDr. Milan Žukovič, PhD.					
<b>Date of last modification:</b> 31.01.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ BPO/14		<b>Course name:</b> Bachelor Thesis and its Defence			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
0.0	100.0	0.0	0.0	0.0	0.0
<b>Provides:</b>					
<b>Date of last modification:</b> 17.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ ZTC1/13		<b>Course name:</b> Basic methods in chaos theory			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. Ing. Štefánia Gallová, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ ZDD1/12		<b>Course name:</b> Basic methods of data minig			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Final project and examination					
<b>Learning outcomes:</b> Understanding of basic concepts from the areas of data mining and machine learning and basic usage of freely available softwares.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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 Alpayzcin. Introduction to Machine Learning, The MIT Press, ISBN 978-0-262-01211-9, 2004.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 28					
A	B	C	D	E	FX
10.71	10.71	14.29	25.0	28.57	10.71
<b>Provides:</b> RNDr. Tomáš Horváth, PhD.					
<b>Date of last modification:</b> 28.02.2014					

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ ZBSIM/13		<b>Course name:</b> Basics of Molecular Simulation			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Written test and elaboration of referate. Exam.					
<b>Learning outcomes:</b> Introduction to the principles of computational simulations of biomolecular objects from point of view of komplex IT application in practice.					
<b>Brief outline of the course:</b> Essential structural characteristics of biomolecules. Foldamers - the definition and its importance. Computational predictions of folding as optimization problem. Propagators - algorithms for the time evolution and their use in molecular dynamics. Monte Carlo methods - algorithms and paralelisation. Computational challenges of biomolecular simulations - description of chemical reactions, free energy evaluation, protein folding. Simulations of rare events. Computational complexity, less traditional optimization techniques and heuristics.					
<b>Recommended literature:</b> - Schlick, Tamar. Molecular Modeling and Simulation. 1st ed. Springer, 2002. - Allen, M. P., and D. J. Tildesley. Computer Simulation of Liquids. Oxford University Press, USA, 1989.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 2					
A	B	C	D	E	FX
0.0	100.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Uličný, CSc.					
<b>Date of last modification:</b> 10.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ KMU1/13		<b>Course name:</b> Coding and multimedial data transition			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
0.0	0.0	0.0	100.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Stanislav Krajčí, PhD., doc. RNDr. Jozef Jirásek, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> KGER/ NJKK/07		<b>Course name:</b> Communication Competence in the German Language			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 42					
A	B	C	D	E	FX
57.14	14.29	7.14	4.76	14.29	2.38
<b>Provides:</b> Mgr. Eva Černáková, PhD.					
<b>Date of last modification:</b> 05.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> CJP/ PFAJKKA/07	<b>Course name:</b> Communicative Competence in English
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> combined, present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> 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	
<b>Learning outcomes:</b> 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.	
<b>Brief outline of the course:</b> Rodina, jej formy a problémy Vyjadrovanie pocitov a dojmov Dom, bývanie a budúcnosť Formy a dialekty v anglickom jazyku Život v meste a na vidieku Kolokácie a idiomy, zaužívané slovné spojenia Prázdniny a sviatky vo svete Životné prostredie a ekológia Výnimky zo slovosledu Frázové slovesá a ich použitie Charakteristiky neformálneho diškurzu	

**Recommended literature:**

McCarthy M., O'Dell F.: English Vocabulary in Use, 1994

Misztal M.: Thematic Vocabulary, 1998

Fictumova J., Ceccarelli J., Long T.: Angličtina, konverzace pro pokročilé, Barrister and Principal, 2008

Peters S., Gráf T.: Time to practise, Polyglot, 2007

www.bbclearningenglish.com

Jones L.: Communicative Grammar Practice, CUP, 1985

Alexander L.G.: Longman English Grammar, Longman, 1988

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

Total number of assessed students: 174

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

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

**Date of last modification:** 06.02.2014

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> CJP/ PFAJGA/07	<b>Course name:</b> Communicative Grammar in English
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> combined, present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> 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	
<b>Learning outcomes:</b> Identifikovanie a odstránenie najfrekvencovanejších gramatických chýb v ústnom prejave, ako aj v písomnom styku. Rozvoj jazykových kompetencií študenta so zameraním na funkcie gramatiky anglického jazyka v každodennej interakcii, v komunikačnom akte na stredne pokročilej úrovni ovládania jazyka (B2 podľa Spoločného európskeho referenčného rámca pre jazyky).	
<b>Brief outline of the course:</b> 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	
<b>Recommended literature:</b> 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	

<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b>					
Total number of assessed students: 378					
A	B	C	D	E	FX
39.42	18.25	17.2	8.73	5.82	10.58
<b>Provides:</b> PaedDr. Gabriela Bednáriková					
<b>Date of last modification:</b> 06.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice							
<b>Faculty:</b> Faculty of Science							
<b>Course ID:</b> ÚFV/ POF1a/99		<b>Course name:</b> Computational Physics I					
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present							
<b>Number of credits:</b> 4							
<b>Recommended semester/trimester of the course:</b> 4.							
<b>Course level:</b> I., III.							
<b>Prerequisites:</b>							
<b>Conditions for course completion:</b> Continuous evaluation is based on students' activity in the classroom and work on assignments. Examination and assignments submitted electronically with the attached computer code.							
<b>Learning outcomes:</b> To teach students to use computer as a tool of modeling of physical reality.							
<b>Brief outline of the course:</b> Introduction to dynamical systems. Numerical solution of ordinary differential equations (ODE) with initial value. Boundary value problems for ODE. Discrete schemes for partial differential equations (PDE). Numerical solution of PDE. Finite difference methods, consistency, convergence, stability. Elliptic and parabolic PDE. Introduction to Monte Carlo (MC) method and applications in statistical physics. MC simulations of lattice spin systems and stochastic processes.							
<b>Recommended literature:</b> 1. C. Pozrikidis: Num. Comp. in Science and Engineering, Oxford Univ. Press, 1998. 2. A.L. Garcia: Numerical Methods for Physics, Prentice-Hall, 1994. 3. D. P. Landau, K. Binder: A Guide to Monte Carlo Simulations in Statistical Physics, Cambridge Univ. Press, 2000. 4. B. A. Berg: Introduction to Markov Chain Monte Carlo Simulations and Their Statistical Analysis, <a href="http://www.worldscibooks.com/etextbook/5904/5904_intro.pdf">http://www.worldscibooks.com/etextbook/5904/5904_intro.pdf</a> 5. W. Janke: Lectures on Ising model, <a href="http://www.physik.uni-leipzig.de/~janke/Ising_Lectures_Lviv.html">http://www.physik.uni-leipzig.de/~janke/Ising_Lectures_Lviv.html</a>							
<b>Course language:</b>							
<b>Notes:</b>							
<b>Course assessment</b> Total number of assessed students: 74							
A	B	C	D	E	FX	N	P
39.19	18.92	8.11	17.57	9.46	2.7	0.0	4.05
<b>Provides:</b> doc. RNDr. Milan Žukovič, PhD.							

**Date of last modification:** 31.01.2014

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ POF1b/99		<b>Course name:</b> Computational Physics II			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Continuous evaluation is based on students' activity in the classroom and work on assignments. Examination and assignments submitted electronically with the attached computer code.					
<b>Learning outcomes:</b> To teach students to create simulation projects to help to solve physical problems.					
<b>Brief outline of the course:</b> Advanced methods of Monte Carlo (MC) simulations of lattice spin systems. Local and cluster perturbation algorithms. Errors and histogram analysis of MC data. Reweighting by simple histogram and multihistogram methods. Multicanonical methods. Simulated and parallel tempering. Universality and finite-size scaling. Determination of order of phase transitions and calculation of critical exponents. Basics of quantum MC simulations. MC simulations of stochastic processes. Diffusion equation. Stochastic processes in financial analysis. Basics of molecular dynamics method.					
<b>Recommended literature:</b> 1. D.P. Landau, K. Binder: A Guide to Monte Carlo Simulations in Statistical Physics, Cambridge University Press, 2000. 2. B.A. Berg: Introduction to Markov Chain Monte Carlo Simulations and Their Statistical Analysis, <a href="http://www.worldscibooks.com/etextbook/5904/5904_intro.pdf">http://www.worldscibooks.com/etextbook/5904/5904_intro.pdf</a> 3. W. Janke: Lectures on Ising model, <a href="http://www.physik.uni-leipzig.de/~janke/Ising_Lectures_Lviv.html">http://www.physik.uni-leipzig.de/~janke/Ising_Lectures_Lviv.html</a>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 35					
A	B	C	D	E	FX
65.71	11.43	14.29	5.71	2.86	0.0
<b>Provides:</b> doc. RNDr. Milan Žukovič, PhD.					
<b>Date of last modification:</b> 31.01.2014					

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PTS/13		<b>Course name:</b> Computer and telecommunication networks			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 1 <b>Per study period:</b> 42 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ ARP1/05		<b>Course name:</b> Computer architecture			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Oral examination, written tests.					
<b>Learning outcomes:</b> To provide the students with a knowledge of basic principles of computer architecture.					
<b>Brief outline of the course:</b> Milestones in computer organization, fundamental limitations. The representation of numbers and the implementation of floating point arithmetic. Combinatorial and sequential circuits, memory organization, RAMs and ROMs. Digital logic level architecture, data path timing, machine cycle. The microarchitecture level, microinstructions and microinstruction control. The instruction set architecture level, data types, addressing modes, instruction types. Instruction execution, pipelining, cache memory. I/O controllers, ports, interrupts, direct memory access. Device drivers, operating system kernel, device-independent software.					
<b>Recommended literature:</b> A. S. Tanenbaum: Structured Computer Organization, 4.ed., Prentice-Hall, 1999 W. Stallings: Computer Organization and Architecture, 4.ed., Prentice-Hall, 1996 J. Blieberger, G. H. Schildt, U. Schmid, S. Stoeckler: Informatik, Springer-Verlag, 1990					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 49					
A	B	C	D	E	FX
16.33	20.41	20.41	22.45	20.41	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ PSIN/13	<b>Course name:</b> Computer network Internet
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 1 <b>Per study period:</b> 42 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b> 2., 4.	
<b>Course level:</b> I.	
<b>Prerequisites:</b> ÚINF/PAZ1a/10 or ÚINF/ePAZ1a/11	
<b>Conditions for course completion:</b> Activity at excercises, home work, test. verbal exam, final test	
<b>Learning outcomes:</b> To understand ISO OSI reference model for network communication, to analyze communication channels parameters, to understand different access methods, to be familiar with the function of center network devices (hub, switch, router), to understand IP protocol, IP addresses and the transfer of internet packets, to understand reliable data transfer of the TCP protocol, to be able to use Sockets, to know basic application protocols and use them in own applications.	
<b>Brief outline of the course:</b> ISO OSI reference model. Web and HTTP, e-mail and SMTP, domain names and DNS, Peer-to-peer applications. Security in computer networks. Transport layer services, multiplexing and demultiplexing, protocol UDP, reliable data transfer, connection oriented transport protocol TCP, congestion control. Network Layer: Internet protocol IPv4 and IPv6, addressing, network address translation, routing algorithms and protocols. Link layer: error detection, multiple access methods CSMA/CD and CSMA/CA, Ethernet, 802.11 Wireless LAN, link layer addressing, VLANs, mobility, mobile technologies. Communication channels parameters, digital and analog encoding.	
<b>Recommended literature:</b> 1. J. F. Kurose, Keith W. Ross: Computer Networking: A Top-Down Approach, 5. edícia, 2010 2. A. S. Tanenbaum: Computer Networks, Prentice Hall, 2002 3. W. Stallings: Local and Metropolitan Area Networks, Prentice Hall, 2000 4. E. Comer, R.E. Droms: Computer Networks and Internets, Prentice Hall, 2003 5. W. R. Stevens: TCP/IP Illustrated, Vol.1: The Protocols, Addison-Wesley, 1994	
<b>Course language:</b>	
<b>Notes:</b>	

<b>Course assessment</b>					
Total number of assessed students: 625					
A	B	C	D	E	FX
9.6	4.48	10.08	15.52	38.24	22.08
<b>Provides:</b> RNDr. Peter Gurský, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ KOPR/12		<b>Course name:</b> Concurrent programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 48					
A	B	C	D	E	FX
18.75	16.67	33.33	12.5	4.17	14.58
<b>Provides:</b> RNDr. Róbert Novotný, PhD., RNDr. Peter Gurský, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ KRP1/13		<b>Course name:</b> Cryptographic protocols			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/KRS/13					
<b>Conditions for course completion:</b> written test					
<b>Learning outcomes:</b> to acquire knowledge on design and verifying of cryptographic protocols					
<b>Brief outline of the course:</b> Authentication and key establishment using shared and public key cryptography, key agreement protocols, conference key agreement, zero-knowledge protocols.					
<b>Recommended literature:</b> 1. Colin Boyd, Anish Mathuria: Protocols for Authentication and Key Establishment, Springer, 2003 2. Douglas R. Stinson: Cryptography: Theory and Practice, Third Edition, Chapman & Hall/CRC, 2006 3. Bruce Schneier: Applied Cryptography, Second Edition, John Wiley & Sons Inc., 1996 4. Peter Ryan, Steve Schneider: Modeling and Analysis of Security Protocols, Addison-Wesley, 2001					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
0.0	0.0	100.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ KRS/13		<b>Course name:</b> Cryptographic systems and their applications			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 2 <b>Per study period:</b> 42 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 6					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 84					
A	B	C	D	E	FX
13.1	10.71	9.52	11.9	34.52	20.24
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ DBS1a/03		<b>Course name:</b> Database systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> Acquired basic concepts and techniques of relational database theory and corresponding software.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> - 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 718					
A	B	C	D	E	FX
11.56	9.19	16.85	22.56	31.48	8.36
<b>Provides:</b> doc. RNDr. Csaba Török, CSc., Mgr. Maroš Andrejko, RNDr. Lukáš Miňo					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ DBS1b/03		<b>Course name:</b> Database systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 6					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/DBS1a/03 or ÚINF/eDBS1a/11					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> Mastering the basic techniques of effective design, normalization and programmable extension of relational databases.					
<b>Brief outline of the course:</b> Database modelling. Functional dependency and normalization. Recursion and transitive closure. Cursors. Stored procedures. Indices and B-trees. Triggers. Transaction. XML, SDL, XPath, XQuery.					
<b>Recommended literature:</b> - 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 608					
A	B	C	D	E	FX
10.36	7.73	10.86	22.2	36.84	12.01
<b>Provides:</b> doc. RNDr. Csaba Török, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚMV/ DSM3a/10		<b>Course name:</b> Discrete mathematics for informaticians			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Based on results of two semestral tests. Based on semestral evaluation and the result of examination (test).					
<b>Learning outcomes:</b> To present the basics of combinatorics and their applications in computer science.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 1. S. Jendroľ, P. Mihók: Diskrétna matematika I., UPJŠ Košice 1992 2. J. Nešetřil, J. Matoušek: Kapitoly z diskrétni 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 1994.					
<b>Course language:</b> Slovak					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 521					
A	B	C	D	E	FX
4.03	2.3	3.84	13.24	52.02	24.57
<b>Provides:</b> doc. RNDr. Tomáš Madaras, PhD., RNDr. Mária Maceková					
<b>Date of last modification:</b> 14.02.2014					



**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ DOP1/09		<b>Course name:</b> Distributive object programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> Mastering the basics of distributed and parallel programming and design of distributed applications communicating via messages.					
<b>Brief outline of the course:</b> Multithreading, synchronization primitives. Basics of parallel programming, PLINQ, Task Parallel Library. Distributed object-oriented programming and its application. Service-oriented architecture, communication via messages. Endpoint: address, interconnections and communication channels, contracts for services, data and messages.					
<b>Recommended literature:</b> - A. S. Tanenbaum, M.V. Steen: Distributed Systems: Principles and Paradigms, Prentice Hall, 2002 - C.Campbell, R.Johnson, A.Miller, Parallel Programming with Microsoft® .NET, Microsoft, 2010 - J.Sharp, Windows Communication Foundation 4 Step by Step, O'Reilly, 2010 - J.Albahari, B.Albahari, C# 5.0 in a Nutshell: The Definitive Reference, O'Reilly, 2011					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 13					
A	B	C	D	E	FX
0.0	30.77	53.85	7.69	7.69	0.0
<b>Provides:</b> doc. RNDr. Csaba Török, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> CJP/ PFAJ4/07	<b>Course name:</b> English Language of Natural Science
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> 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	
<b>Learning outcomes:</b> 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.	
<b>Brief outline of the course:</b> <b>ANGLICKÝ JAZYK PRE GEOGRAFOV:</b> 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. <b>ANGLICKÝ JAZYK PRE EKOLÓGOV:</b> 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. <b>ANGLICKÝ JAZYK PRE BIOLÓGOV:</b> veda a výskum, odbor biológia morfológia rastlín, koreň	

stonka, list  
rozmnožovanie rastlín, kvet  
biológia človeka - telesné sústavy  
slovná zásoba z oblasti botanickej a zoolologickej nomenklatúry

#### ANGLICKÝ JAZYK PRE MATEMATIKOV:

Veda a výskum, odbor matematika  
čísla a tvary v matematike  
Elementárna algebra  
Elementárna geometria  
Výpočty v matematike  
Pytagoras, Pytagorova veta  
Grafy a diagramy  
Štatistika

#### ANGLICKÝ JAZYK PRE FYZIKOV

Veda a výskum, odbor fyzika  
Atómy a molekuly  
Hmota a jej premeny  
Elektrina, jej využitie  
Zvuka, jeho prenos  
Svetlo

Solárny systém  
Matematické operácie

#### ANGLICKÝ JAZYK PRE CHEMIKOV:

Veda a výskum, odbor chémia:  
História, alchímia  
Nomenklatúra  
Laboratórium a jeho vybavenie  
Periodická tabuľka  
Hmota a jej premeny  
Organická chémia  
Anorganická chémia

#### ANGLICKÝ JAZYK PRE INFORMATIKOV:

Veda a výskum, informatika  
Život s počítačom  
Typický PC  
Zdravie a bezpečnosť, ergonómika  
Programovanie  
Emailovanie  
Cybercrime  
Trendy budúcnosti

#### **Recommended literature:**

študijné materiály dodané vyučujúcim  
Velebná, V. English for Chemists.  
Redman, S.: English Vocabulary in Use, Pre-intermediate, Intermediate. Cambridge University Press. 2003.  
Powel, M.: Dynamic Presentations. CUP, 2010  
Armer, T.: Cambridge English for Scientists. CUP, 2011  
Wharton J.: Academic Encounters. The Natural World, CUP: 2009.  
Murphy, R.: English Grammar in Use. Cambridge University Press. 1994.

Redman, s.: English Vocabulary in Use, Pre-intermediate, Intermediate. Cambridge University Press. 2003.  
P. Fitzgerald : English for ICT studies, Garnet Publishing, 2011

**Course language:**

**Notes:**

**Course assessment**

Total number of assessed students: 1860

A	B	C	D	E	FX
31.72	25.54	18.28	11.94	9.52	3.01

**Provides:** PhDr. Helena Petruňová, CSc., PaedDr. Gabriela Bednáriková, Mgr. Marianna Škultétyová, Mgr. Silvia Marcinová, PhD.

**Date of last modification:** 06.02.2014

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ FAN/13		<b>Course name:</b> Forensic analysis			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/BPD1/13					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> PhDr. Štefan Franko, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ FUN1/14		<b>Course name:</b> Functional programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/PAZ1c/03					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To learn bases of declarative programming (as complementary method to procedural programming) and basic methods of implementations of functional programming languages.					
<b>Brief outline of the course:</b> 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					
<b>Recommended literature:</b> BIRD, R., WADLER, P.: Introduction to Functional Programming. Prentice Hall International, 1988. LIPOVAČA, M.: Learn You Haskell for Great Good!. Free from <a href="http://learnyouahaskell.com/">http://learnyouahaskell.com/</a>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 4					
A	B	C	D	E	FX
75.0	25.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. Ing. Štefánia Gallová, CSc.					
<b>Date of last modification:</b> 25.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚGE/ GIS/07		<b>Course name:</b> Geographic Information Systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚGE/ZKA/13 or ÚGE/KAT1/05					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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 Information Systems. Oxford: Oxford University Press.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 243					
A	B	C	D	E	FX
32.51	21.81	28.4	9.88	7.41	0.0
<b>Provides:</b> Mgr. Michal Gallay, PhD., prof. Mgr. Jaroslav Hofierka, PhD.					
<b>Date of last modification:</b> 11.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚGE/ GIS/13		<b>Course name:</b> Geographic Information Systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 2					
A	B	C	D	E	FX
50.0	50.0	0.0	0.0	0.0	0.0
<b>Provides:</b> Mgr. Michal Gallay, PhD., prof. Mgr. Jaroslav Hofierka, PhD.					
<b>Date of last modification:</b> 11.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> KGER/ NJKG/07		<b>Course name:</b> Grammar in the German Language Communication			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 46					
A	B	C	D	E	FX
54.35	13.04	8.7	4.35	10.87	8.7
<b>Provides:</b> Dr. rer. pol. Michaela Kováčová					
<b>Date of last modification:</b> 05.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ GRP/13		<b>Course name:</b> GRID computing			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> Ing. Jozef Černák, PhD.					
<b>Date of last modification:</b> 11.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB10/14	<b>Course name:</b> IB10 - Medzinárodný certifikát ECo-C	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB11/14	<b>Course name:</b> IB11 - Medzinárodný certifikát ECDL	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 14		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB12/14	<b>Course name:</b> IB12 - Používanie, administrácia a vývoj v systéme SAP	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 54		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB1/14	<b>Course name:</b> IB1 - Etika v biomedicínskych vedách pre zdravotnícku prax	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB2/14	<b>Course name:</b> IB2 - Právne minimum – súkromnoprávne aspekty	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB3/14	<b>Course name:</b> IB3 - Právne minimum – verejnoprávne aspekty	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB4/14	<b>Course name:</b> IB4 - Projektový manažment	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 20		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB5/14	<b>Course name:</b> IB5 - Manažérska ekonomika	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB6/14	<b>Course name:</b> IB6 - Riešenie konfliktných a krízových situácií v školskej praxi	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB7/14	<b>Course name:</b> IB7 - Štatistika pre prax	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB8/14	<b>Course name:</b> IB8 - Environmentálne aspekty záťaže životného prostredia	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 16		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> R UPJŠ/ IB9/14	<b>Course name:</b> IB9 - Medzinárodný certifikát TOEFL	
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present		
<b>Number of credits:</b> 17		
<b>Recommended semester/trimester of the course:</b>		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 0		
abs	n	neabs
0.0	0.0	0.0
<b>Provides:</b>		
<b>Date of last modification:</b> 11.08.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ ANO/07		<b>Course name:</b> Image analysis			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 5					
A	B	C	D	E	FX
20.0	0.0	40.0	0.0	40.0	0.0
<b>Provides:</b> doc. Ing. Zoltán Tomori, CSc., Ing. Radoslav Gargalík					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ MIN1/06		<b>Course name:</b> Informatics for medicine			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Oral and written exam					
<b>Learning outcomes:</b> To present an application of computer science in medicine domain with emphasis on the specific conditions for so-called safety-relevant domain.					
<b>Brief outline of the course:</b> 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 mangement according to CMMI methodology.					
<b>Recommended literature:</b> <a href="http://www.syngo.com">http://www.syngo.com</a> <a href="http://www.siemens.com">http://www.siemens.com</a>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 68					
A	B	C	D	E	FX
75.0	25.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. Ing. Norbert Kopčo, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ MIN2/08		<b>Course name:</b> Informatics for medicine			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/MIN1/06					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 20					
A	B	C	D	E	FX
80.0	10.0	0.0	0.0	10.0	0.0
<b>Provides:</b> doc. Ing. Norbert Kopčo, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ MAIN/14		<b>Course name:</b> Interdisciplinary applications of informatics			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚFV/NOT1b/03 and ÚINF/ZDD1/12 and ÚINF/ANO/07 and ÚFV/POF1b/99					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b>					
<b>Date of last modification:</b> 19.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ UPF1/12		<b>Course name:</b> Introduction to Computational Physics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Elaboration of microreferat on given topics. Exam and discussion of the implementation of the given project.					
<b>Learning outcomes:</b> The aim of the lecture is to provide students with the physical background of the computational processes in conventional computers, as well as to provide less conventional possibilities to implement computational processes using deeper knowledge of physical processes.					
<b>Brief outline of the course:</b> Physical processes utilised in contemporary computers. Computational processes / thermodynamics point of view. Physical limits of current computer technologies (Moore, Amdahl laws . Computer modeling and physical reality. Computational complexity and paralelism. Distributed computing. Alternative methods of computation (analogue , optical processors, DNA computing, quantum computing).					
<b>Recommended literature:</b> Actual literature provided by lecturer.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 12					
A	B	C	D	E	FX
83.33	16.67	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Uličný, CSc.					
<b>Date of last modification:</b> 10.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ UGR1/04		<b>Course name:</b> Introduction to computer graphics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To provide the students with knowledge of graphics algorithms and basic principles of computer graphics.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 216					
A	B	C	D	E	FX
13.43	7.87	12.5	24.07	32.41	9.72
<b>Provides:</b> RNDr. Rastislav Krivoš-Belluš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ UNS1/04		<b>Course name:</b> Introduction to neural networks			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To understand and to know applications of basic paradigms of neural networks. To learn working with software for neural network models.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 336					
A	B	C	D	E	FX
8.04	15.18	23.81	21.43	27.08	4.46
<b>Provides:</b> doc. RNDr. Gabriela Andrejková, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ UNV1/12		<b>Course name:</b> Introduction to neurosciences			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Examination					
<b>Learning outcomes:</b> Introduction to anatomy and physiology of human brain, to cognitive processes corresponding to different mental functions, and to computational tools used in neuroscience.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 4					
A	B	C	D	E	FX
0.0	25.0	25.0	0.0	50.0	0.0
<b>Provides:</b> doc. Ing. Norbert Kopčo, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ UIN1/13		<b>Course name:</b> Introduction to study of informatics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 159					
A	B	C	D	E	FX
30.19	21.38	18.24	15.72	5.03	9.43
<b>Provides:</b> doc. RNDr. Stanislav Krajčí, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Alexander Szabari, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> Dek. PF UPJŠ/USPV/13	<b>Course name:</b> Introduction to Study of Sciences
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> 12s / 3d <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 539	
abs	n
95.18	4.82
<b>Provides:</b> doc. RNDr. Mária Kožurková, CSc., prof. RNDr. Katarína Cechlárová, DrSc., prof. RNDr. Beňadik Šmajda, CSc., prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Ivan Žežula, CSc., doc. RNDr. Vladimír Zeleňák, PhD., Doc. RNDr. Jozef Hanč, PhD., RNDr. Ondrej Krídlo, PhD., Mgr. Vladislav Kolarčík, PhD., RNDr. Janetta Nestorová-Dická, PhD.	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/AEO1/13		<b>Course name:</b> Legal aspects of electronic commerce			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> JUDr. Regina Hučková, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PAI1/13		<b>Course name:</b> Legal aspects of informatics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 16					
A	B	C	D	E	FX
6.25	18.75	12.5	18.75	18.75	25.0
<b>Provides:</b> RNDr. JUDr. Pavol Sokol, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ZLSP/14	<b>Course name:</b> Linux fundamentals for SAP
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b> 3., 5.	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZTSP/14 or ÚINF/SAP1a/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> Introduction to Linux: commands, permissions & processes, work with the files, advanced Linux: advanced commands; basics of networking & scripting, SAP architecture on OS level.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 12	
abs	n
100.0	0.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ FLO/09		<b>Course name:</b> Logic Circuits			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 1 <b>Per study period:</b> 14 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> written exam, presence at the laboratory practice					
<b>Learning outcomes:</b> 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.					
<b>Brief outline of the course:</b> 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. Sequential logical circuits (sequential behavior, structure and stability of sequential logical circuits, basic sequential functions and their realization, arithmetic unit of digital computer)					
<b>Recommended literature:</b> Petrovič P.: Elektronika I – Vybrané obvody číslicovej techniky. Skriptum PF, Edičné stredisko UPJŠ, Košice 2003. 2. vydanie: Vydavateľstvo UPJŠ, Košice, 2006.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 167					
A	B	C	D	E	FX
29.94	32.34	20.96	5.39	1.8	9.58
<b>Provides:</b> Mgr. Vladimír Komanický, PhD.					
<b>Date of last modification:</b> 18.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ LOP1/04		<b>Course name:</b> Logic programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To learn bases of declarative programming (as complementary method to procedural programming) and basic methods of implementations of logic programming languages.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> BRATKO, I.: Prolog – programming for artificial intelligence, third edition. Addison-Wesley, 2001					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 211					
A	B	C	D	E	FX
19.43	10.9	15.64	24.64	27.01	2.37
<b>Provides:</b> RNDr. Ondrej Krídlo, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ MIS/13		<b>Course name:</b> Management of information systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 4., 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/DBS1a/03					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Gabriel Semanišin, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚMV/ MZIa/10		<b>Course name:</b> Mathematical foundations of informatics I			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 6					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Two tests and completion of individual homework. Based on semestral evaluation and examination test.					
<b>Learning outcomes:</b> To obtain basic knowledge in arithmetic, linear algebra, abstract algebra and calculus, to learn proof methods and to use the obtained knowledge in problem solving.					
<b>Brief outline of the course:</b> Integers, divisibility, congruences, congruence classes. Fields and groups. Systems of linear equations, matrices, matrix operations, determinants. Functions and their properties, continuity, limit, derivative. Analysis of functions.					
<b>Recommended literature:</b> Huťka, Benko, Ďurikovič: Matematika, Alfa, Bratislava 1991 D. Studenovská, T. Madaras, S. Mockovčiak: Zbierka úloh z matematiky pre nematematické odbory, UPJŠ 2006 D. Studenovská, T. Madaras: Matematika pre nematematické odbory, UPJŠ 2006 J. Ivan: Matematika 1, Alfa, Bratislava 1989 T. Katriňák a kol.: Algebra a teoretická aritmetika, Alfa, Bratislava 1986					
<b>Course language:</b> Slovak					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 132					
A	B	C	D	E	FX
0.0	5.3	7.58	10.61	44.7	31.82
<b>Provides:</b> doc. RNDr. Tomáš Madaras, PhD., RNDr. Pavel Molnár					
<b>Date of last modification:</b> 14.02.2014					



**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚMV/ MZIb/10		<b>Course name:</b> Mathematical foundations of informatics II			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 6					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚMV/MZIa/10					
<b>Conditions for course completion:</b> Based on results of two tests and individual homeworks. Based on semestral evaluation and examination test.					
<b>Learning outcomes:</b> To extend the obtained knowledge in mathematics by topics in integral calculus, differential equations and infinite series.					
<b>Brief outline of the course:</b> Indefinite and definite integral and their applications. Differential equations. Series, convergence criteria. Series of functions, Taylor expansion. Periodic functions, trigonometric series, Fourier expansion.					
<b>Recommended literature:</b> Huťka, Benko, Ďurikovič: Matematika, Alfa, Bratislava 1991 D. Studenovská, T. Madaras, S. Mockovčiak: Zbierka úloh z matematiky pre nematematické odbory, UPJŠ 2006 D. Studenovská, T. Madaras: Matematika pre nematematické odbory, UPJŠ 2006 J. Ivan: Matematika 2, Alfa, Bratislava 1989 T. Katriňák a kol.: Algebra a teoretická aritmetika, Alfa, Bratislava 1986					
<b>Course language:</b> Slovak					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 43					
A	B	C	D	E	FX
0.0	9.3	9.3	13.95	53.49	13.95
<b>Provides:</b> doc. RNDr. Tomáš Madaras, PhD., RNDr. Pavel Molnár					
<b>Date of last modification:</b> 14.02.2014					

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ VKT/13		<b>Course name:</b> Modern information technologies in applications			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 0 / 2 <b>Per study period:</b> 0 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> RNDr. Peter Marcinčák					
<b>Date of last modification:</b> 13.03.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ MPJ1/08		<b>Course name:</b> Modern programming languages			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 / 2 <b>Per study period:</b> 14 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> Mastering the basics of standard and experimental programming models and techniques.					
<b>Brief outline of the course:</b> Object oriented programming, Generic programming – parametric polymorphism. Vector programming – operator overloading, indexer. Event programming (event handling) – delegates. Attribute programming. Parallel and multithread programming – processes, threadpool. Functional and declarative programming – lambda expressions, LINQ. Graphics primitives.					
<b>Recommended literature:</b> - Andrew Troelsen, Pro C# 5.0 and the .NET 4.5 Platform, 2012, APRESS - Joseph Albahari, Ben Albahari, C# 5.0 in a Nutshell: The Definitive Reference, 2012, O'REILLY - Daniel Solis, Illustrated C# 2012, 2012, APRESS					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 88					
A	B	C	D	E	FX
17.05	18.18	27.27	22.73	14.77	0.0
<b>Provides:</b> doc. RNDr. Csaba Török, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚTVŠ/ NJ//13	<b>Course name:</b> Naval Yachting
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 36 <b>Per study period:</b> 504 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 2	
abs	n
100.0	0.0
<b>Provides:</b> doc. Mgr. Rastislav Feč, PhD.	
<b>Date of last modification:</b> 15.01.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/SKB1/13		<b>Course name:</b> Network and communication security			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/PSIN/13					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚFV/ NOT1a/03	<b>Course name:</b> Nontraditional Optimization Techniques I
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b> 5.	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Monitoring progress in solving applied projects. examination (50%), quality of the project (50%) examination	
<b>Learning outcomes:</b> To familiarize students with biologically and physically inspired optimization, simulation and prediction techniques. To expand students' creativity and programming skills by applying heuristic techniques in solving applied problems.	
<b>Brief outline of the course:</b> Fundamentals of optimization theory. Basic optimization problems. Basic types of objective functions. Classification of optimization techniques. Gradient-based optimization techniques. Evolutionary algorithms. Genetic algorithms. Genetic algorithms as Markov processes. Statistical Mechanics Approximations of Genetic Algorithms. Monte Carlo simulation and simulated annealing. Swarm optimization. Cellular Automata and their applications in simulations of complex systems. Fractals. Agent-based models. Evolutionary games. Evolution of cooperation. Fundamentals of Neural Networks. Application of singular value decomposition to solve least squares problems.	
<b>Recommended literature:</b> Hartmann, A. K., Rieger, H., Optimization Algorithms in Physics, Wiley, 2002 Reeves, C. R., Rowe, J. E., Genetic Algorithms: Principles and perspectives, Kluwer, 2003 Mitchell, M., Complexity. A Guided Tour, Oxford University Press, 2009 Solé, R. V., Phase Transitions, Princeton University Press, 2011 Ilachinski, A., Cellular Automata. A Discrete universe, World Scientific, 2002 Haykin, S., Neural Networks. A Comprehensive Foundation, Prentice-Hall, 1999	
<b>Course language:</b>	
<b>Notes:</b>	



<b>Course assessment</b>					
Total number of assessed students: 55					
A	B	C	D	E	FX
69.09	16.36	7.27	1.82	5.45	0.0
<b>Provides:</b> RNDr. Branislav Brutovský, CSc.					
<b>Date of last modification:</b> 10.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ NOT1b/03		<b>Course name:</b> Nontraditional Optimization Techniques II			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Presentation of the project in written form. Oral exam and discussion of the presented project.					
<b>Learning outcomes:</b> By using examples from the biology to learn applications of optimization techniques on study and interpretation of complex systems. Introduction to new paradigms in the area of systems biology.					
<b>Brief outline of the course:</b> Complex systems, emergent behavior. Evolutionary theory and memetics. Application of optimization techniques on complex systems. Application of methods /genetic algorithms, simulated annealing, taboo search/ on selected problems of biomolecular simulations. Molecular dynamics, protein folding. Population dynamics, metabolic networks and complexity in bioinformatics.					
<b>Recommended literature:</b> The actual scientific papers.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 29					
A	B	C	D	E	FX
86.21	6.9	3.45	3.45	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Uličný, CSc.					
<b>Date of last modification:</b> 10.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ OP/14	<b>Course name:</b> Odborná prax
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> 2t <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 3	
abs	n
100.0	0.0
<b>Provides:</b> Mgr. Alexander Szabari, PhD.	
<b>Date of last modification:</b> 06.03.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ OSY1/11		<b>Course name:</b> Operating systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/PAZ1a/10					
<b>Conditions for course completion:</b> Written tests.					
<b>Learning outcomes:</b> 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.					
<b>Brief outline of the course:</b> Operating systems structure and components, process, files, threads, CPU processor scheduling, schedule algorithms, interprocess communications, deadlocks, synchronization, multitasking, virtualisation.					
<b>Recommended literature:</b> STALLINGS, W.: Operating Systems. Internal and Design Principles. Pearson, Prentice Hall, 2005. SILBERSCHATZ, A. et al.: Operating Systems Concepts. Addison-Wesley, Reading MA, 2000.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 102					
A	B	C	D	E	FX
32.35	6.86	17.65	12.75	19.61	10.78
<b>Provides:</b> doc. Ing. Štefánia Gallová, CSc., RNDr. Peter Gurský, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ORSP/14	<b>Course name:</b> Oracle database administration
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ASSP/14 or ÚINF/SAP1b/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 11	
abs	n
90.91	9.09
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PDS1/03		<b>Course name:</b> Parallel and distributed systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> to introduce the fundamentals of parallel and distributed programming					
<b>Brief outline of the course:</b> current parallel and distributed architectures, basic issues in parallel and distributed applications development, data structures and programming methodologies					
<b>Recommended literature:</b> Kenneth A. Berman and Jerome L. Paul: Algorithms: Sequential, Parallel, and Distributed, Thomson, 2005, ISBN 0-534-42057-5 Gregory R. Andrews: Foundations of Multithreaded, Parallel, and Distributed Programming, Addison-Wesley, 2000, ISBN 0-201-35752-6 Joseph JáJá: An Introduction to Parallel Algorithms, Addison-Wesley, 1992, ISBN 0-201-54856-9 Gerard Tel: Introduction to Distributed Algorithms, Cambridge University Press, 1994, ISBN 0-521-47069-2					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 97					
A	B	C	D	E	FX
23.71	20.62	15.46	20.62	11.34	8.25
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. František Galčík, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ LEK1/99		<b>Course name:</b> Physical Principles of Medicine Technique			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 27					
A	B	C	D	E	FX
85.19	11.11	3.7	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Karol Flachbart, DrSc.					
<b>Date of last modification:</b> 18.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚFV/ FPI/15	<b>Course name:</b> Physics for Informaticists I
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Monitoring tests during the calculus lessons 1. in the 6th week 2. in the 12th week Final assessment is based on the results of : - oral examination assessment of the calculus lessons (written tests, overall performance during the lessons)	
<b>Learning outcomes:</b> Basic knowledge about the mechanics of point mass, system of particles, rigid body, elastic bodies and fluids and gases.	
<b>Brief outline of the course:</b> Basic knowledge of the vector algebra. Standards and units. Kinematics. Dynamics. The principle of relativity in the classical mechanics. Gravitation. Mechanics of many-particle systems. The motion of rigid bodies. Deformation, elasticity. Mechanics of fluids and gases.	
<b>Recommended literature:</b> Hajko V., Daniel-Szabó J.: Základy fyziky, VEDA, Bratislava 1983. Veis Š., Maďar J., Martišovits V.: Všeobecná fyzika I., Mechanika a molekulová fyzika, ALFA Bratislava, 1987. Fuka J., Široká M.: Obecná fyzika I / skriptum /, PF Univ. Palackého, Olomouc 1983. Hlavička A., a kol.: Fyzika pre pedagogické fakulty, SPN, Praha 1971. Hajko V., a kol.: Fyzika v príkladoch, ALFA Bratislava 1983. Halliday, D., Resnick, R., Walker, J.: Fyzika, časť 1 Mechanika, VUT Brno, 2000 Halliday, D., Resnick, R., Walker, J.: Fyzika, časť 2 Mechanika - Termodynamika, VUT Brno, 2000 Krempaský J.: Fyzika, ALFA Bratislava 1982.	
<b>Course language:</b> Slovak	
<b>Notes:</b>	

<b>Course assessment</b>					
Total number of assessed students: 9					
A	B	C	D	E	FX
33.33	11.11	22.22	11.11	22.22	0.0
<b>Provides:</b> doc. RNDr. Zuzana Ješková, PhD.					
<b>Date of last modification:</b> 05.03.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ IFY/09		<b>Course name:</b> Physics for Informatics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 3., 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Two written tests. Combination of the results of two tests.					
<b>Learning outcomes:</b> Introduction to classical and modern physics.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> J. B. Seaborn, Understanding the Universe: An Introduction to Physics and Astrophysics, Springer 1997					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 114					
A	B	C	D	E	FX
31.58	26.32	27.19	13.16	1.75	0.0
<b>Provides:</b> doc. RNDr. Ján Füzér, PhD.					
<b>Date of last modification:</b> 18.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ IFS1a/07		<b>Course name:</b> Physics Practical for Informatics			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 4., 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚFV/IFY1b/07					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 20					
A	B	C	D	E	FX
70.0	25.0	5.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Rastislav Varga, DrSc., RNDr. Erik Čížmár, PhD.					
<b>Date of last modification:</b> 18.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PRP2/14		<b>Course name:</b> Principles of computers			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 66					
A	B	C	D	E	FX
34.85	10.61	19.7	13.64	19.7	1.52
<b>Provides:</b> doc. Ing. Štefánia Gallová, CSc.					
<b>Date of last modification:</b> 19.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ IBdi/13		<b>Course name:</b> Princípy informačnej bezpečnosti			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 13					
A	B	C	D	E	FX
53.85	15.38	0.0	15.38	7.69	7.69
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. František Galčík, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PMO1/13		<b>Course name:</b> Proces modelling			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/SWI1a/04 and ÚMV/DSM3a/10					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 4					
A	B	C	D	E	FX
25.0	25.0	0.0	50.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Gabriel Semanišin, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ PAZ1a/10	<b>Course name:</b> Programming, algorithms, and complexity
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 4 <b>Per study period:</b> 42 / 56 <b>Course method:</b> present	
<b>Number of credits:</b> 8	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> The course does not require having any programming experiences. The aim of the course is to teach students basics of algorithms and programming. The methodology used in the course is “object oriented programming first”. The primary goal of the course is to teach students to make good programming habits and a good object-oriented design. The programming language used in the course is Java with professional IDE Eclipse.	
<b>Brief outline of the course:</b> First part of the course (with turtle graphics): New Eclipse project, interactive communication with objects, simple turtle graphics, making user methods, local variables, variable types, arithmetic and logical expressions, random numbers, conditions, loops for and while, debugging, references, chars, Strings, arrays, instance variables, mouse events, simple array algorithms. Second part of the course (without turtle graphics): Exceptions, using try-catch-finally block, files and directories, conversion from string variables, encapsulation, constructors with parameters, constructors hierarchy, getters and setters, interfaces, inheritance and polymorphism, abstract classes and methods, packages, visibility modifiers, sorting using Arrays.sort() and interfaces Comparable and Comparator, Java Collections Framework: autoboxing, interface List, ArrayList, LinkedList, interface Set and class HashSet, methods equals() and hashCode(), for-each loop, interface Map and class HashMap, custom Exceptions, rethrowing exceptions, exceptions' inheritance, Runtime exceptions, Errors, static variables and methods.	
<b>Recommended literature:</b> ECKEL, B.: Thinking in Java, Pearson, 2006 SIERRA, K., BATES, B.: Head First Java, O'Reilly Media; 2nd edition, 2005	
<b>Course language:</b>	
<b>Notes:</b>	



<b>Course assessment</b>					
Total number of assessed students: 421					
A	B	C	D	E	FX
15.68	7.84	12.35	15.2	12.59	36.34
<b>Provides:</b> RNDr. Peter Gurský, PhD., RNDr. František Galčík, PhD., PaedDr. Ján Guniš, PhD., RNDr. Zuzana Bednárová, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PAZ1b/03		<b>Course name:</b> Programming, algorithms, and complexity			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 4 <b>Per study period:</b> 28 / 56 <b>Course method:</b> present					
<b>Number of credits:</b> 7					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/PAZ1a/10 or ÚFV/POF1b/99					
<b>Conditions for course completion:</b> Oral and practical examination.					
<b>Learning outcomes:</b> To understand basic principles of algorithm design (including basic data structures). To apply these principles and knowledge to solve simple algorithmic tasks efficiently.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> 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.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 991					
A	B	C	D	E	FX
11.2	6.26	9.89	20.18	24.22	28.25
<b>Provides:</b> RNDr. František Galčík, PhD., PaedDr. Ján Guniš, PhD., RNDr. Zuzana Bednárová, PhD., Mgr. Matej Nikorovič, doc. RNDr. Gabriela Andrejková, CSc.					
<b>Date of last modification:</b> 03.02.2014					

**Approved:** doc. RNDr. Gabriel Semanišin, PhD.

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PAZ1c/03		<b>Course name:</b> Programming, algorithms, and complexity			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 4 <b>Per study period:</b> 56 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To grasp object-oriented principles of larger application and algorithm design.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b> SIERRA, K., BATES, B.: Head First Java (2nd Edition), 2005 ECKEL, B.: Thinking in Java (4th Edition), 2006					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 231					
A	B	C	D	E	FX
37.66	20.35	17.32	10.39	9.52	4.76
<b>Provides:</b> RNDr. Róbert Novotný, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ JAC1/11		<b>Course name:</b> Programming language C			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b> ÚINF/PAZ1a/10					
<b>Conditions for course completion:</b> Practics attendance and activity. Home assignment Final project.					
<b>Learning outcomes:</b> Become skilled in language C and get knowledge of the theoretical concepts that are used in the development in low-level software.					
<b>Brief outline of the course:</b> Procedural paradigm in C, low-level concepts and their implementation, nonautomatic memory handling and allocation. Data structures in C.					
<b>Recommended literature:</b> 1. A. D. Marshall: Programming in C: UNIX System Calls and Subroutines using C. [online] < <a href="http://www.cs.cf.ac.uk/Dave/C/CE.html">http://www.cs.cf.ac.uk/Dave/C/CE.html</a> > 2. J. Maasen: C for Java Programmers. [online] < <a href="http://www.cs.vu.nl/~jason/college/dictaat.pdf">http://www.cs.vu.nl/~jason/college/dictaat.pdf</a> > 3. Bruce Eckel: Thinking in C. [online] < <a href="http://mindview.net/CDS/ThinkingInC">http://mindview.net/CDS/ThinkingInC</a> >					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 92					
A	B	C	D	E	FX
53.26	22.83	6.52	2.17	10.87	4.35
<b>Provides:</b> RNDr. Peter Gurský, PhD., RNDr. Zuzana Bednárová, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PRM1/09		<b>Course name:</b> Project management			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 21					
A	B	C	D	E	FX
9.52	28.57	33.33	4.76	19.05	4.76
<b>Provides:</b> Mgr. Alexander Szabari, PhD., doc. RNDr. Gabriel Semanišin, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ PMSP/14	<b>Course name:</b> Project management in SAP ERP
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 / 1 <b>Per study period:</b> 42 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 5	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZMSP/14	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> Business process overview in SAP, project structure definition, project planning, resource planning, costs and revenues, record project activities.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ PBS/07	<b>Course name:</b> Pro-seminar to bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 1 <b>Per study period:</b> 14 <b>Course method:</b> present	
<b>Number of credits:</b> 1	
<b>Recommended semester/trimester of the course:</b> 4.	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> The seminar is oriented to problems prospective to preparations of Bachelor theses.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 184	
abs	n
90.22	9.78
<b>Provides:</b> RNDr. Tomáš Horváth, PhD., RNDr. František Galčík, PhD.	
<b>Date of last modification:</b> 03.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚGE/ DPZ/13		<b>Course name:</b> Remote sensing			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b> Remote Sensing includes – electromagnetic radiation, electromagnetic spectrum, radiometric quantities. Radiation sources, interaction with the surrounding, reflection, impact of the atmosphere, diffusion in the atmosphere, absorption in the atmosphere, landscape objects and their identification and appreciation, data acquire - basic division, cameras, film material, types of aerial images, radiometer, mechanical scanner, electronic scanner, carriers, satellites and their instrumentation, principals of remote sensing data postprocessing, interpretation of satellite and aerial images, remote sensing applications.					
<b>Recommended literature:</b> Lillesand, T. M., Kiefer, R. W., 2002: Remote Sensing and Image Interpretation., New York, John Wiley&Sons, x, 724 s.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 2					
A	B	C	D	E	FX
0.0	0.0	100.0	0.0	0.0	0.0
<b>Provides:</b> Mgr. Michal Gallay, PhD.					
<b>Date of last modification:</b> 11.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ APSP/14	<b>Course name:</b> SAP applications in public administration/company
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZSSP/14	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 27	
abs	n
100.0	0.0
<b>Provides:</b> RNDr. Štefan Pero, RNDr. Edita Vojtová	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ZKSP/14	<b>Course name:</b> SAP basics for consultant
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZTSP/14 or ÚINF/SAP1a/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 0	
abs	n
0.0	0.0
<b>Provides:</b> RNDr. Štefan Pero	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ZSSP/14	<b>Course name:</b> SAP basics for user
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b> ÚINF/ZTSP/14 or ÚINF/SAP1a/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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.	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 63	
abs	n
100.0	0.0
<b>Provides:</b> RNDr. Štefan Pero, RNDr. Edita Vojtová	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

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

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ ZTSP/14	<b>Course name:</b> SAP overview
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present	
<b>Number of credits:</b> 4	
<b>Recommended semester/trimester of the course:</b> 3., 5.	
<b>Course level:</b> I., II., N	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b> 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).	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 156	
abs	n
100.0	0.0
<b>Provides:</b> RNDr. Štefan Pero, RNDr. Edita Vojtová	
<b>Date of last modification:</b> 17.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚTVŠ/ ÚTVŠ/CM/13	<b>Course name:</b> Seaside Aerobic Exercise
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 36 <b>Per study period:</b> 504 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 7	
abs	n
57.14	42.86
<b>Provides:</b> Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.	
<b>Date of last modification:</b> 15.01.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ BAPS/14		<b>Course name:</b> Security and administration of computer systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/KRS/13 and ÚINF/AOS1/07 and ÚINF/ARP1/05 and ÚINF/SKB1/13					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b>					
<b>Date of last modification:</b> 19.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ BPD1/13		<b>Course name:</b> Security of computer systems and data			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/OSY1/13					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 2					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	100.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. PhDr. Peter Písarčík					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ VKBa/13		<b>Course name:</b> Selected topics in security of computer networks			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Jozef Jirásek, PhD., RNDr. JUDr. Pavol Sokol, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SPS1/00		<b>Course name:</b> Seminar in network programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To render current technologies of programing in network distributed environment.					
<b>Brief outline of the course:</b> Basics of programming the client-server applications, iterative and concurrent servers, Remote Procedure Calls. Server-side programming, CGI, PHP, basics of Perl and Python. Script languages, ASP, JSP, Component Object Model, Corba, database connection's interfaces. Document Object Model, XML, XSL, dynamic extensions of HTML. Advanced level of programming is expected.					
<b>Recommended literature:</b> Internet sources and specifications.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 45					
A	B	C	D	E	FX
66.67	15.56	15.56	0.0	2.22	0.0
<b>Provides:</b> RNDr. Rastislav Krivoš-Belluš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SOS1/13		<b>Course name:</b> Seminar to operational systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 84					
A	B	C	D	E	FX
53.57	20.24	10.71	2.38	7.14	5.95
<b>Provides:</b> RNDr. Róbert Novotný, PhD., Mgr. Maroš Andrejko, RNDr. Peter Gurský, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ PRIS/14		<b>Course name:</b> Software and information system			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b>					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/ASU1/13 and ÚINF/TVP1/13 and ÚINF/PMO1/13 and ÚINF/SWI1b/10					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 1					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	100.0	0.0
<b>Provides:</b>					
<b>Date of last modification:</b> 19.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SWI1a/04		<b>Course name:</b> Software engineering			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 4.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/DBS1a/03					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To provide information concerning the principal activities related to the development of software products.					
<b>Brief outline of the course:</b> System, subsystem, software system. Software processes. Introduction to project management. Requirements gathering. Software modelilng. Software architectures. Software development methodologies. Verification and validation. Resource management.					
<b>Recommended literature:</b> 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.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 189					
A	B	C	D	E	FX
12.7	13.76	22.22	21.16	29.1	1.06
<b>Provides:</b> doc. RNDr. Gabriel Semanišin, PhD., Mgr. Alexander Szabari, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SWI1b/10		<b>Course name:</b> Software engineering			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 3 <b>Per study period:</b> 42 <b>Course method:</b> present					
<b>Number of credits:</b> 3					
<b>Recommended semester/trimester of the course:</b> 5.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/SWI1a/04					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To learn principles and to developed fundamental skills concerning software modelling, development and implementation.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 86					
A	B	C	D	E	FX
18.6	16.28	18.6	16.28	27.91	2.33
<b>Provides:</b> Mgr. Alexander Szabari, PhD., doc. RNDr. Gabriel Semanišin, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ BZP1a/06	<b>Course name:</b> Special seminar to bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 5.	
<b>Course level:</b> I.	
<b>Prerequisites:</b> ÚINF/PBS/07	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> 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 choosing methods and documentation of a solution.	
<b>Brief outline of the course:</b> Seminar is connected to subjects Bachelor thesis in informatics I.	
<b>Recommended literature:</b> Special and research literature connected to Bachelor 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.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 16	
abs	n
81.25	18.75
<b>Provides:</b> RNDr. Tomáš Horváth, PhD., RNDr. František Galčík, PhD.	
<b>Date of last modification:</b> 03.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ BZP1b/06	<b>Course name:</b> Special seminar to bachelor thesis
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 6.	
<b>Course level:</b> I.	
<b>Prerequisites:</b> ÚINF/BZP1a/06	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b> 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 choosing methods and documentation of a solution.	
<b>Brief outline of the course:</b> Seminar is connected to subjects Bachelor thesis in informatics I.	
<b>Recommended literature:</b> Special and research literature connected to Bachelor 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.	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b> Total number of assessed students: 15	
abs	n
93.33	6.67
<b>Provides:</b> RNDr. Tomáš Horváth, PhD., RNDr. František Galčík, PhD.	
<b>Date of last modification:</b> 03.02.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> ÚTVŠ/ TVa/11	<b>Course name:</b> Sports Activities I.	
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present		
<b>Number of credits:</b> 2		
<b>Recommended semester/trimester of the course:</b> 1.		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 7160		
abs	n	neabs
88.42	7.82	3.76
<b>Provides:</b> 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		
<b>Date of last modification:</b> 15.01.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> ÚTVŠ/ TVb/11	<b>Course name:</b> Sports Activities II.	
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present		
<b>Number of credits:</b> 2		
<b>Recommended semester/trimester of the course:</b> 2.		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 6364		
abs	n	neabs
84.95	11.06	3.99
<b>Provides:</b> 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		
<b>Date of last modification:</b> 15.01.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> ÚTVŠ/ TVc/11	<b>Course name:</b> Sports Activities III.	
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present		
<b>Number of credits:</b> 2		
<b>Recommended semester/trimester of the course:</b> 3.		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 4191		
abs	n	neabs
89.91	4.72	5.37
<b>Provides:</b> 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		
<b>Date of last modification:</b> 15.01.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice		
<b>Faculty:</b> Faculty of Science		
<b>Course ID:</b> ÚTVŠ/ TVd/11	<b>Course name:</b> Sports Activities IV.	
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present		
<b>Number of credits:</b> 2		
<b>Recommended semester/trimester of the course:</b> 4.		
<b>Course level:</b> I., I.II., II.		
<b>Prerequisites:</b>		
<b>Conditions for course completion:</b>		
<b>Learning outcomes:</b>		
<b>Brief outline of the course:</b>		
<b>Recommended literature:</b>		
<b>Course language:</b>		
<b>Notes:</b>		
<b>Course assessment</b> Total number of assessed students: 3363		
abs	n	neabs
86.14	6.78	7.08
<b>Provides:</b> 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		
<b>Date of last modification:</b> 15.01.2014		
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.		

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚFV/ MSU/07		<b>Course name:</b> Statistical Methods of Data Analysis			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Exam					
<b>Learning outcomes:</b> Introduction to probability theory and mathematical statistics.					
<b>Brief outline of the course:</b> General introduction to theory of probability, random processes and mathematical statistics.					
<b>Recommended literature:</b> 1) L. Lyons, Statistics for Nuclear and Particle Physics, CUP, 1989. 2) L. Lyons, A Practical Guide to Data Analysis for Physical Science Students, CUP, 1991. 3) J.R. Taylor, An Introduction to Error Analysis: The Study of Uncertainties in Physical Measurements, University Science Books, 1997.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 19					
A	B	C	D	E	FX
15.79	15.79	21.05	0.0	47.37	0.0
<b>Provides:</b> doc. RNDr. Jozef Urbán, CSc., RNDr. Adela Kravčáková, PhD.					
<b>Date of last modification:</b> 11.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SXM1/13		<b>Course name:</b> Structure formats and representation of data			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b> Evaluation of partial assignments within larger project. Evaluation of multiple assignments corresponding to learning blocks.					
<b>Learning outcomes:</b> Become acknowledged with theoretical concepts and methodologies with structured and semistructured data. Acquire programming skills with implementations of these concepts.					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b> 1. Eliotte "Rusty" Harold. XML Bible, Gold Edition. Wiley, 2001. ISBN 978-0764548192. 2. Grigoris Antoniou, Frank Van Harmelen. A Semantic Web Primer, Second Edition. MIT Press, 2008. ISBN 978-0262012423. 3. Michael Kay. XSLT 2.0 Programmer's Reference, 3rd Edition. Wrox, 2004. ISBN: 978-076456909.					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 4					
A	B	C	D	E	FX
25.0	25.0	25.0	0.0	25.0	0.0
<b>Provides:</b> RNDr. Róbert Novotný, PhD., RNDr. František Galčík, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SVK1/00		<b>Course name:</b> Student scientific conference			
<b>Course type, scope and the method:</b> <b>Course type:</b> <b>Recommended course-load (hours):</b> <b>Per week: Per study period:</b> <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 101					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
<b>Provides:</b>					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚTVŠ/ LKSp//13	<b>Course name:</b> Summer Course-Rafting of TISA River
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 36 <b>Per study period:</b> 504 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 63	
abs	n
41.27	58.73
<b>Provides:</b> Mgr. Peter Bakalár, PhD.	
<b>Date of last modification:</b> 15.01.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚTVŠ/ KP/12	<b>Course name:</b> Survival Course
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 36 <b>Per study period:</b> 504 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 185	
abs	n
41.62	58.38
<b>Provides:</b> Mgr. Marek Valanský	
<b>Date of last modification:</b> 15.01.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SLO1a/06		<b>Course name:</b> Symbolic logic			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 2.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To understand basic notions of sentence and predicate logic - sentence, sentence scheme, provability, satisfiability, term, formula.					
<b>Brief outline of the course:</b> Predicate logic – logic language, syntax and semantics, term, formula. Axioms, proof, provability. Interpretation, truth, model. Correctness of the predicate logic.					
<b>Recommended literature:</b> GOLDSTERN M., JUDAH H.: The Incompleteness Phenomenon, A New Course in Mathematical Logic, A K Peters, Wellesley, Massachusetts, 1995 <a href="http://cs.ics.upjs.sk/~krajci/skola/vyucba/ucebneTexty/logika/logika.pdf">http://cs.ics.upjs.sk/~krajci/skola/vyucba/ucebneTexty/logika/logika.pdf</a>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 324					
A	B	C	D	E	FX
18.21	7.41	13.58	12.35	33.33	15.12
<b>Provides:</b> doc. RNDr. Stanislav Krajčí, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ SPR1a/09		<b>Course name:</b> System programming			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 4., 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b> ÚINF/JAC1/11					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> Provide and demonstrate basic concepts of Android system programming.					
<b>Brief outline of the course:</b> Introduction to programming in OS Android.					
<b>Recommended literature:</b> 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					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 62					
A	B	C	D	E	FX
33.87	12.9	11.29	11.29	11.29	19.35
<b>Provides:</b> RNDr. Róbert Novotný, PhD., doc. RNDr. Gabriela Andrejková, CSc.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ TVP1/13		<b>Course name:</b> Testing and verification of programs			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 2 <b>Per study period:</b> 28 / 28 <b>Course method:</b> present					
<b>Number of credits:</b> 5					
<b>Recommended semester/trimester of the course:</b> 6.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 3					
A	B	C	D	E	FX
33.33	0.0	66.67	0.0	0.0	0.0
<b>Provides:</b> doc. RNDr. Gabriela Andrejková, CSc., Mgr. Alexander Szabari, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ TYS1/06		<b>Course name:</b> Typographical systems			
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 <b>Per study period:</b> 28 <b>Course method:</b> present					
<b>Number of credits:</b> 2					
<b>Recommended semester/trimester of the course:</b> 3.					
<b>Course level:</b> I.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b> To provide the basic information on principles for typesetting of documents containing mathematical formulas in Plain TeX, AMS-TeX, and LaTeX.					
<b>Brief outline of the course:</b> 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.					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 223					
A	B	C	D	E	FX
46.64	18.39	21.08	5.38	7.62	0.9
<b>Provides:</b> doc. RNDr. Stanislav Krajčí, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					



## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚINF/ POS2a/09	<b>Course name:</b> User environments of operating systems
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week: 2 Per study period: 28</b> <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b> 1.	
<b>Course level:</b> I.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b> Test - solving practical tasks. final test	
<b>Learning outcomes:</b> To be familiar in user interfaces of operation systems Windows and Linux, to know their options, advantages, disadvantages and differences. To know, how to configure basic parameters, to install basic system software and to use internal and external devices.	
<b>Brief outline of the course:</b> OS Windows - user accounts management, sharing, mounting remote directories. Processes, monitoring and modification of system parameters. Connecting to the Internet, settings and monitoring, firewall. Basic features of FAT a NTFS file systems. Disk management, backups, recovery. File and directory permissions. Making links to files and directories. Virtualization and emulation of OS. OS GNU/Linux, directories structure, shell. Running jobs, scheduling, jobs on background. Managing with files and directories, backups, file permissions, user groups. Connecting to the Internet. Firewall. Programs installation, Package managers, actualization. Backups on local and remote storage. Imaging. RAID field Management.	
<b>Recommended literature:</b> (1) Kameník, P.: Příkazový řádek v Linuxu, praktická řešení. Computer press. 2011. (2) Linux - Dokumentační projekt, 4. aktualizované vydanie. Computer press. 2007. (3) Bitto, O.: Příkazový řádek Windows 7. Computer press. 2011. (4) Selecký, M.: Windows Sysinternals: Vylad'ite si systém. 2013.	
<b>Course language:</b>	
<b>Notes:</b>	

<b>Course assessment</b>					
Total number of assessed students: 18					
A	B	C	D	E	FX
27.78	11.11	22.22	22.22	16.67	0.0
<b>Provides:</b> RNDr. JUDr. Pavol Sokol, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice					
<b>Faculty:</b> Faculty of Science					
<b>Course ID:</b> ÚINF/ WBdi/13		<b>Course name:</b> Web a návrh používateľských rozhraní			
<b>Course type, scope and the method:</b> <b>Course type:</b> Lecture / Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 2 / 1 <b>Per study period:</b> 28 / 14 <b>Course method:</b> present					
<b>Number of credits:</b> 4					
<b>Recommended semester/trimester of the course:</b> 1.					
<b>Course level:</b> I., II.					
<b>Prerequisites:</b>					
<b>Conditions for course completion:</b>					
<b>Learning outcomes:</b>					
<b>Brief outline of the course:</b>					
<b>Recommended literature:</b>					
<b>Course language:</b>					
<b>Notes:</b>					
<b>Course assessment</b> Total number of assessed students: 61					
A	B	C	D	E	FX
11.48	8.2	9.84	18.03	16.39	36.07
<b>Provides:</b> RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.					
<b>Date of last modification:</b> 03.02.2014					
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.					

## COURSE INFORMATION LETTER

<b>University:</b> P. J. Šafárik University in Košice	
<b>Faculty:</b> Faculty of Science	
<b>Course ID:</b> ÚTVŠ/ ZKLS//13	<b>Course name:</b> Winter Ski Training Course
<b>Course type, scope and the method:</b> <b>Course type:</b> Practice <b>Recommended course-load (hours):</b> <b>Per week:</b> 36 <b>Per study period:</b> 504 <b>Course method:</b> present	
<b>Number of credits:</b> 2	
<b>Recommended semester/trimester of the course:</b>	
<b>Course level:</b> I., II.	
<b>Prerequisites:</b>	
<b>Conditions for course completion:</b>	
<b>Learning outcomes:</b>	
<b>Brief outline of the course:</b>	
<b>Recommended literature:</b>	
<b>Course language:</b>	
<b>Notes:</b>	
<b>Course assessment</b>	
Total number of assessed students: 59	
abs	n
25.42	74.58
<b>Provides:</b> PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc.	
<b>Date of last modification:</b> 15.01.2014	
<b>Approved:</b> doc. RNDr. Gabriel Semanišin, PhD.	