CONTENT

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚMV/ pPSM/19	**Course name:** Advanced statistic methods
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: N	
Prerequisities: ÚMV/pSPP/19 and ÚMV/pZNM/19	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	
Provides: doc. RNDr. Daniel Klein, PhD.	
Date of last modification: 17.05.2019	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚINF/ pZPS/21	**Course name:** Basics of computer networks

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

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: N

Prerequisities:

Conditions for course completion:
Elaboration of the final project and successful completion of the written work.

Learning outcomes:
The student will get acquainted with the basic concepts used in computer networks, will gain theoretical and practical skills in the implementation of simple local computer networks. They will get acquainted with the ISO / OSI model, gain a deeper understanding of how the network works at its individual layers.
The course focuses on working with devices using the Cisco IOS operating system, such as switches and routers. He will also handle the issue of IP addressing - planning, VLSM and subnetting. Within the course, they will master the issues that are included in the first semester of the Cisco Network Academic Program.
During the study, the student has educational materials and an administrative environment for teaching management available through the LMS system (http://www.netacad.com).

Brief outline of the course:
1. Introduction to computer networks.
2. Concept of network (layer) communication model, ISO / OSI model.
3. Address schemes, IP addressing (IPv4 & IPv6).
4. Physical layer of network model and its implementation.
5. Basic work with routers and switches, Cisco IOS.
6. Function of transport and network layer protocols and services.
7. Data routing in computer networks - basic terminology.
8. Introduction to routing. Static and dynamic routing.
9. Variable mask length lengthing (VLSM), basic IPv6 configuration, CDP.
10. Ethernet technology.

Recommended literature:
1. Cisco Networking Academy Program : CCNA R&S „Introduction to Networks“ (CCNA1) - http://www.netacad.com
2. T. Lammle: CCNA Routing and Switching Study Guide, Wiley-Blackwell, ISBN: 9781118749616, 2013
3. J.F. Kurose, K.W.Ross: Počítačové sítě, Computer Press, ISBN: 9788025138250, 2014

4. R. Pužmanová: TCP/IP v kostce, Kopp, ISBN: 9788072323883, 2009
Course language:
Notes:
Course assessment Total number of assessed students: 0
Provides: Ing. Miroslav Michalko, PhD.
Date of last modification: 26.08.2021
Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚINF/ ZTSP/16	**Course name:** Essentials of the SAP Technology

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., N

Prerequisities:

Conditions for course completion:
Conditions for the final evaluation:
Final test (theoretical and practical)
Conditions for successful completion of the course:
1. Active participation in teaching in accordance with the study regulations and according to the teacher's instructions.
2. Mastering the conditions of the final evaluation in the overall expression at the level of at least 80%.

Learning outcomes:
During teaching and especially in the final evaluation, the student demonstrates adequate mastery of the content standard of the course, which is defined by the course syllabus, and demonstrates mastery of the performance standard, within which the student has a basic overview of enterprise information systems, SAP system, overview of processes in the system, overview of roles and profiles in SAP, controls basic navigation in the system, can start a specific transaction, manages data search and display, running multiple modes, creating favorites, can customize output formats and can create reports.

Brief outline of the course:
1. Enterprise information systems - enterprise architecture, processes, deployment of enterprise IS. Introduction to mySAP technology. SAP - benefits, distribution, components, modules, transactions, economic benefits of deployment in the organization.
2. SAP applications and components, overview of SAP solutions for large, medium and small businesses. SAP technology infrastructure (client / server architecture, transactions, client as a logically integrated organizational unit, job positions).
3. SAP basics and navigation - login, SAP screen elements, form design, system movement, use of standard keys and screen icons, transaction start, input fields, command shortcuts, Favorites tab, user-specific settings.
4. SAP basics and navigation - multiple modes, command shortcuts, searching and displaying data - variants, output format - changing and saving the layout, creating a report.
5. SAP basics and navigation - Business Workplace, report printing, report export to local file, system information.

6.-7. Individual work for practice.

Recommended literature:
Company literature of SAP. Available on-line: <http://www.sap.com>

Course language:
slovak

Notes:
By default, teaching is carried out face to face. If this is not possible (eg due to a pandemic), teaching is provided at a distance through video conferencing programs and LMS.

Course assessment
Total number of assessed students: 389

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96.66	1.03	2.31

Provides: RNDr. Slavka Blichová, Bc. Martin Tomko

Date of last modification: 21.11.2021

Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚINF/ UIVE/19	**Course name:** Introduction to Internet of things
Course type, scope and the method: **Course type:** Lecture / Practice **Recommended course-load (hours):** **Per week:** 2 / 2 **Per study period:** 28 / 28 **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: N	
Prerequisities: ÚINF/ZTSP/16	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	
Provides: RNDr. Miroslav Opiela, PhD.	
Date of last modification: 10.05.2019	
Approved:	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚINF/ UIB1/21	**Course name:** Introduction to information security
Course type, scope and the method: **Course type:** Lecture / Practice **Recommended course-load (hours):** **Per week:** 2 / 2 **Per study period:** 28 / 28 **Course method:** present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: I., N	
Prerequisities:	
Conditions for course completion: The condition for passing the course is: 1. Exercise tasks (20% of the total number of points), 2. Homeworks (30% of the total number of points), 3. Written final theoretical exam (25% of the total number of points), 4. Written final practical exam (25% of the total number of points).	
Learning outcomes: The result of the education is an understanding of the basic concepts of information security from the technical, legal and procedural views of point.	
Brief outline of the course: 1. Introduction to information security and information security model, 2. Information security management, 3. Risk and risk management, 4. Legal, normative and ethical aspects of information security, 5. Continuity management of activities, processes and security incidents handling, 6. Introduction to cryptology, 7. Access control, 8. Physical and environmental security, 9. Human resources security and social engineering, 10. End point security and malicious code, 11. Computer network security, 12. Application security, 13. Final exam.	
Recommended literature: 1. MARTIN, Andrew, Awais RASHID, Steve SCHNEIDER a Howard CHIVERS. CyBOK: The Cyber Security Body of Knowledge. The National Cyber Security Centre, 2021, 2. ANDRESS, Jason, Awais RASHID, Steve SCHNEIDER a Howard CHIVERS. Foundations of Information Security: A Straightforward Introduction. 1. No Starch Press, 2019. ISBN 978-1718500044, 3. PELTIER, Thomas, Awais RASHID, Steve SCHNEIDER a Howard CHIVERS. Information Security Fundamentals. 2. Boca Raton: Auerbach Publications, 2013. ISBN 978-1138436893.	
Course language: Slovak or English	
Notes:	

Course assessment Total number of assessed students: 153					
A	B	C	D	E	FX
39.22	26.14	22.22	6.54	2.61	3.27
Provides: doc. RNDr. JUDr. Pavol Sokol, PhD., RNDr. Eva Marková					
Date of last modification: 04.01.2022					
Approved:					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty:

Course ID: ÚMV/ pZNM/19	**Course name:** Priciples of numeric methods

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: 2 **Per study period:** 28
Course method: present

Number of ECTS credits: 4

Recommended semester/trimester of the course:

Course level: N

Prerequisities:

Conditions for course completion:
Overall evaluation is given by ongoing evaluation and elaboration of the assigned project.

Learning outcomes:
After completing the course, the student will gain theoretical and practical knowledge of the basic numerical algorithms with emphasis on algorithms used in data analysis. The student should be able to independently understand and subsequently implement numerical algorithms in the programming language, be able to modify components of existing algorithms and should also be able to solve (real / practical) problems by choosing a suitable numerical method using available efficient calculation packages.

Brief outline of the course:
1. Basic principles and techniques of numerical analysis - computer implementation and representation of real numbers, numerical vs. symbolic (analytical) calculations, method vs. algorithm, error measurement of numerical solution, conditionality of numerical problems, stability and convergence of numerical algorithms.
2. Linear systems - Gaussian elimination with and without pivot, forward and backward substitution, scaled partial pivotization, singularity and perturbation, matrix conditionality, Thomas method, iterative methods - Jacobi, Gauss-Seidel, SOR method, gradient methods - gradient descent, associated directions.
3. Eigenvalues and eigenvectors of a matrix - estimation of the position of eigenvalues, partial eigenvalue problem (power method and Rayleigh's method, Hessenberg form), complete eigenvalue problem (calculation of dominant eigenvalue, LU, QU, QR - decomposition method, Jacobi method), SVD - signal matrix decomposition.
4. Approximation of functions and data smoothing - using polynomials, interpolation, splines, kernel methods.

Recommended literature:
1. Ackleh, A. S., Allen, E. J., Kearfott, R. B., Seshaiyer, P. (2009). Classical and Modern Numerical Analysis: Theory, Methods and Practice (1 edition). Boca Raton: Chapman and Hall/ CRC.
2. Anastassiou, G. A., Mezei, R. (2015). Numerical Analysis Using Sage. Springer International Publishing.

3. Cheney, E. W., Kincaid, D. R. (2012). Numerical Mathematics and Computing (7 edition). Boston, MA: Cengage Learning.
4. O'Leary, D. P. (2008). Scientific Computing with Case Studies. Philadelphia: Society for Industrial and Applied Mathematics.
5. Sauer, T. (2017). Numerical Analysis. (3 edition). Hoboken, N.J. Pearson.
6. Segethová, J. (2002). Základy numerické matematiky. Karolinum.
7. M. Vicher (2003). Numerická matematika

Course language:
slovak or english

Notes:

Course assessment
Total number of assessed students: 0

Provides: doc. Mgr. Jozef Kiseľák, PhD.

Date of last modification: 14.04.2022

Approved:

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty:	
Course ID: ÚMV/ pSPP/19	**Course name:** Statistics for practice
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: N	
Prerequisities:	
Conditions for course completion: Working out an individual data evaluation project.	
Learning outcomes: Understanding of foundations of basic descriptive statistics used in sciences.	
Brief outline of the course: Measurement process. Data types. Frequencies. Basic data characteristics: location and variability measures, quantiles. Basic probability distributions. Point and interval estimators. Testing of basic hypotheses. Power of the test. Nonparametric tests. Dependence strength measurement. Fundamentals of regression.	
Recommended literature: Any basic statistics textbook, e.g. 1. Wonnacott, Wonnacott: Introductory statistics, 5th ed., Wiley, 1990.	
Course language: English	
Notes:	
Course assessment Total number of assessed students: 0	
Provides: prof. RNDr. Ivan Žežula, CSc.	
Date of last modification: 28.03.2022	
Approved:	