

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚINF/ AFJ1a/15		Course name: Automata and formal languages			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion: Oral examination.					
Learning outcomes: To provide theoretical background for studying computer science in general, by giving the necessary knowledge in theory of automata.					
Brief outline of the course: Chomsky hierarchy of grammars and languages. Finite-state transducers and mapping, construction of a reduced automaton. Finite-state acceptors, nondeterministic acceptors, regular expressions. Closure properties of regular languages. Context-free grammars, Chomsky and Greibach normal forms. Pushdown automata, Pumping lemma. Closure properties of context-free languages.					
Recommended literature: J.E. Hopcroft, R.Motwani, J.D. Ullman: Introduction to automata theory, languages, and computation, Addison-Wesley, 2001. J. Shallit: A second course in formal languages and automata theory, Cambridge University press, 2009. M. Sipser: Introduction to the theory of computation, Thomson Course Technology, 2006.					
Course language:					
Course assessment Total number of assessed students: 789					
A	B	C	D	E	FX
24.46	18.12	23.83	18.38	10.01	5.2
Provides: Mgr. Alexander Szabari, PhD., prof. RNDr. Viliam Geffert, DrSc.					
Date of last modification: 06.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ ALG2b/10		Course name: Algebra II			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 4 / 2 Per study period: 56 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites: ÚMV/ALGa/10					
Conditions for course completion: According to tests and to the exam.					
Learning outcomes: To obtain basic knowledge on matrices, linear spaces, linear transformations and polynomials and their roots over a field; to be able to apply the theory in concrete excercises.					
Brief outline of the course: Linear spaces, bases. Rank of a matrix. Systems of homogeneous linear equations. Linear transformations. Ring, fields. Polynomials over a field. Factorization into irreducible factors, roots. Roots of complex numbers. Cubic equations. Polynomials with several unknowns, symmetric polynomials.					
Recommended literature: A. Kurosh: Higher Algebra, Mir Publishers, 1975.					
Course language: Slovak					
Course assessment Total number of assessed students: 503					
A	B	C	D	E	FX
13.32	11.73	17.3	18.69	28.83	10.14
Provides: prof. RNDr. Danica Studenovská, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ ALGa/10		Course name: Algebra I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 3 Per study period: 42 / 42 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion: According to the results from the semester and in view of the results of the written and oral final exam..					
Learning outcomes: To obtain basic knowledge from number theory concerning divisibility and from linear algebra concerning systems of linear equations. To be able to apply it in concrete exercises.					
Brief outline of the course: Divisibility in \mathbb{Z} . Fields. Systems of linear equations, Gauss elimination. Maps, permutations. Computing with matrices. Determinants, Cramer rule.					
Recommended literature: T.S Blyth, E.F. Robertson: Basic linear algebra, Springer Verlag, 2001. K. Jänich: Linear algebra, Springer Verlag, 1991.					
Course language: Slovak					
Course assessment Total number of assessed students: 1336					
A	B	C	D	E	FX
10.93	11.98	17.81	17.74	28.89	12.65
Provides: prof. RNDr. Danica Studenovská, CSc., RNDr. Igor Fabrici, Dr. rer. nat., Mgr. Simona Rindošová, RNDr. Martina Tamášová, Mgr. Erika Vojtková					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ ALP/06		Course name: Alternative Education			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 143					
A	B	C	D	E	FX
66.43	29.37	0.7	1.4	0.7	1.4
Provides: PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petriková, PhD.					
Date of last modification: 07.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ATC/10		Course name: Algebra and number theory			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚMV/ALG2b/10					
Conditions for course completion: It is based on the results of written checks carried out during the semester. Final evaluation is based on the results of written checks carried out during the semester, of test, written and oral exam.					
Learning outcomes: Obtain basic knowledge about groups and from the elementary number theory.					
Brief outline of the course: Groups, subgroups, quotient groups, homomorphism theorems for groups, selected topics of the number theory.					
Recommended literature: G.Birkoff, S.Mac Lane: A Survey of Modern Algebra, New York 1965 I.R. Shafarevich: Basic Notions of Algebra, Springer, 2005					
Course language: Slovak					
Course assessment Total number of assessed students: 132					
A	B	C	D	E	FX
10.61	19.7	27.27	21.21	16.67	4.55
Provides: doc. RNDr. Matúš Harminc, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚBEV/ BDD/05		Course name: Biology of Children and Adolescents			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 0 Per study period: 28 / 0 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Written test					
Learning outcomes: The aim of the subject is to gain the particular level of knowledge about human body and its development. It is necessary for the understanding of specific biological characteristics of children and adolescents linked to development.					
Brief outline of the course: Human ontogenesis. Postnatal development. Age specific features of skeletal and muscular, circulatory, respiratory, gastrointestinal and urinary systems. Reproductive system. Endocrine system. Nervous system. Age specifics of selected diseases and drug dependence arise. Human population and environment.					
Recommended literature: Drobný I., Drobná M.: Biológia dieťaťa pre špeciálnych pedagógov I. a II. Bratislava, PdF UK, 2000 Lipková V.: Somatický a fyziologický vývoj dieťaťa. Osveta Bratislava, 1980 Malá H., Klementa J.: Biológia detí a dorastu. Bratislava, SPN, 1989					
Course language:					
Course assessment Total number of assessed students: 1337					
A	B	C	D	E	FX
31.56	23.04	17.5	18.03	9.42	0.45
Provides: doc. RNDr. Monika Kassayová, CSc.					
Date of last modification: 16.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ BKP/14	Course name: Bachelor Project
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 50	
abs	n
94.0	6.0
Provides:	
Date of last modification: 23.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ BKP2/14	Course name: Bachelor Project
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 1 Per study period: 14 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: To prepare and present a contribution related to thesis and its topic.	
Learning outcomes: To get students familiar with basic knowledge on the form and content of thesis and thesis presentation as well as with the support for its realisation.	
Brief outline of the course: Necessary elements and formal aspects of a thesis. WYSIWYG editors, LaTeX, drawing programs. Presentation software, Microsoft PowerPoint and its clones, Beamer. Suggestions for presentation and contribution making.	
Recommended literature: electronic information sources	
Course language: Slovak or English	
Course assessment Total number of assessed students: 110	
abs	n
100.0	0.0
Provides: doc. RNDr. Dušan Šveda, CSc.	
Date of last modification: 22.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ BPO/14		Course name: Bachelor thesis and its defence			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion: Acquiring the required number of credits in the structure defined by the study plan.					
Learning outcomes: Evaluation of student's competences with respect to the profile of the graduate.					
Brief outline of the course: Presentation of results of the bachelor thesis, answering the questions of the thesis supervisor and answering the questions of members of evaluation committee.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 41					
A	B	C	D	E	FX
56.1	29.27	7.32	4.88	2.44	0.0
Provides:					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ BPO/14		Course name: Bachelor Thesis and its Defence			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 83					
A	B	C	D	E	FX
28.92	33.73	16.87	13.25	7.23	0.0
Provides:					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/DF2p/03		Course name: History of Philosophy 2 (General Introduction)			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 6.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 734					
A	B	C	D	E	FX
60.63	13.9	12.67	8.72	3.41	0.68
Provides: doc. PhDr. Pavol Tholt, PhD., mim. prof., Doc. PhDr. Peter Nezník, CSc., PhDr. Katarína Mayerová, PhD., doc. Mgr. Róbert Stojka, PhD.					
Date of last modification: 24.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DGS/15	Course name: Students` Digital Literacy
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion: continuous assessment and final project	
Learning outcomes: To acquire an overview of the current possibilities of digital technology to develop skills and competencies with emphasis on the area of communication, social interaction and personal. To acquire basic digital skills for working with advanced technologies (mobile phone, tablet, laptop, social media, online webtechnologies). To understand the value of existing advanced technologies for better and more effective learning, work and active life in higher education, lifelong learning and further career prospects.	
Brief outline of the course: Introduction to the problems of current, commonly available digital technology. Tools for access to online information source (mobile applications for access to information systems, databases, data books). Tools for collecting, generating direct information and data and its subsequent analysis and visualization. Tools for providing and sharing of electronic content (cloud technology - Google Drive, Youtube, Google+, Skydrive, Dropbox). Tools for communication, discussion and collaborative activities. Legal work with digital technologies and resources, plagiarism, critical evaluation of digital resources. Security, privacy, digital ethics and etiquette, digital citizenship.	
Recommended literature: 1. Bruff, D. (2009). Teaching with classroom response systems: Creating active learning environments. San Francisco: Jossey-Bass. 2. Byrne, R. (2012). Google Drive and Docs for Teachers. Free Tech for Teachers. 3. Kawasaki, G. (2012). What the Plus! Google+ for the Rest of Us. Amazon igital Services. 4. Kolb, L. (2011). Cell Phones in the Classroom: A Practical Guide for Educators. International Society for Technology in Education.	
Course language: Slovak	
Course assessment Total number of assessed students: 104	

abs	n
97.12	2.88
Provides: doc. RNDr. Stanislav Lukáč, PhD., doc. RNDr. Jozef Hanč, PhD., doc. RNDr. Ľubomír Šnajder, PhD.	
Date of last modification: 22.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ DSMa/10		Course name: Discrete mathematics I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Examination.					
Learning outcomes: To be familiar with some factual knowledge of combinatorics and graph theory. To understand and appreciate mathematical notions, definitions, and proofs, to solve problems requiring more than just standard recipes, and to express mathematical thoughts precisely and more rigorously.					
Brief outline of the course: Basic principles. Counting and binomial coefficients, Binomial theorem, polynomial theorem. Recurrence: Some miscellaneous problems, Fibonacci-type relations, Using generating functions, miscellaneous methods. The inclusion-exclusion principle. Rook polynomials. Introduction to graphs: The concept of graphs, paths in graphs. Connectivity. Trees, bipartite graphs. Planarity. Polyhedra. Traveling round a graph: Eulerian graphs, Hamiltonian graphs. Partitions and colourings: Vertex colourings of graphs. Edge colourings of graphs					
Recommended literature: 1. I. Anderson, A first course in discrete mathematics, Springer-Verlag London, 2001. 2. J. Matoušek and J. Nešetřil, Invitation to discrete mathematics, Oxford University Press Inc. , New York 1999.					
Course language: Slovak					
Course assessment Total number of assessed students: 547					
A	B	C	D	E	FX
13.35	11.7	17.18	22.49	26.87	8.41
Provides: Dr.h.c. prof. RNDr. Stanislav Jendroľ, DrSc., RNDr. Mária Maceková, PhD., RNDr. Juraj Valiska					

Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DSMb/10	Course name: Discrete mathematics II
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites: ÚMV/DSMa/10 or ÚMV/DSM3a/10	
Conditions for course completion: Two tests during the semester It is made on the base of results of two tests during the semester (50%) and a final written exam and an oral exam (50%)	
Learning outcomes: Mastered fundamental methods of graph theory. To be familiar with some possibilities of applications of graph theory	
Brief outline of the course: Introduction to graphs. Connectivity and distance in graphs. Trees, spanning subgraphs Independence and coverings. Introduction to the Ramsey theory. Introduction to the extremal graph theory. Matchings: Theorem of Hall, theorem of Berge, optimal assignment problems. Vertex colorings: Theorem of Brooks, Theorem of Erdos and Szekeres. Chromatic polynomials. Edge colourings, Theorem of Koenig. Introduction to directed graphs: Basic notions, connectivities, tournaments, acyclic graphs, base and kernel of a graph. Introduction to applications of graphs.	
Recommended literature: 1. A. Bondy and U.S.R. Murty: Graph theory, Springer-Verlag 2008 2. G. Chartrand, L. Lesniak, and P. Zhang, Graphs and digraphs, CRC Press, Boca Raton 2011 3. R. Diestel: Graph Theory, Springer-Verlag, New York, Inc. 1997 4. M.N.S. Swamy and K. Thulasiraman: Graphs, Networks and Algorithms. Willey Interscience Publ., New York 1981	
Course language: Slovak	
Course assessment	

Total number of assessed students: 375					
A	B	C	D	E	FX
11.73	9.33	17.33	19.47	28.0	14.13
Provides: Dr.h.c. prof. RNDr. Stanislav Jendroľ, DrSc., RNDr. Mária Maceková, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DSMc/10	Course name: Discrete mathematics III
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisites: ÚMV/DSMb/10	
Conditions for course completion: Two tests during the semester It is made on the base of results of two tests during the semester (50%) and a final written exam and an oral exam (50%)	
Learning outcomes: Mastered fundamental methods of graph theory. Abilities of applications of graph theory.	
Brief outline of the course: Eulerian and Hamiltonian graphs. Connectivity: Theorem of Menger. Matching: Theorem of Tutte. Planar graphs: Theorem of Kuratowski. Plane graphs: Euler polyhedral formula and its consequences, Introduction to the theory of light graphs in plane graphs. Colourings of plane graphs. Crossing numbers of graphs. Introduction to the topological graph theory. Edge colourings: Theorem of Vizing. Application of Graph theory: The shortest path problem, the critical path method.	
Recommended literature: 1. A. Bondy and U.S.R. Murty: Graph theory, Springer-Verlag 2008 2. G. Chartrand, L. Lesniak, and P. Zhang, Graphs and digraphs, CRC Press, Boca Raton 2011 3. R. Diestel: Graph Theory, Springer-Verlag, New York, Inc. 1997 4. M.N.S. Swamy and K. Thulasiraman: Graphs, Networks and Algorithms. Willey Interscience Publ., New York 1981	
Course language: Slovak	
Course assessment Total number of assessed students: 61	

A	B	C	D	E	FX
11.48	36.07	13.11	29.51	9.84	0.0
Provides: Dr.h.c. prof. RNDr. Stanislav Jendroľ, DrSc., doc. RNDr. Roman Soták, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

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

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

Course assessment

Total number of assessed students: 25

A	B	C	D	E	FX
56.0	24.0	16.0	0.0	4.0	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ EXFG/15		Course name: Physical Geography Excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 6d Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 672					
A	B	C	D	E	FX
89.43	8.18	1.34	0.15	0.45	0.45
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ EXHG1/15		Course name: Human Geography Excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 6d Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 631					
A	B	C	D	E	FX
84.63	8.4	4.75	0.63	0.79	0.79
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., Mgr. Ladislav Novotný, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/FGS/15		Course name: Physical Geography of Slovakia			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 388					
A	B	C	D	E	FX
19.59	28.87	31.7	12.89	4.64	2.32
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ FYG1/03		Course name: Physical geography 1			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 3.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Hydrology of the running water, genesis and development of river basins, measuring of water and its flow. Genesis and the main types of lakes, temperatures, water movements. Sea and water currents, its chemical properties, relief of the sea-floor. Subsurface waters, glaciers. In the section of soil science and soil geography, physical and chemical nature of soils will be treated as well as actual and presently used systems of the soil classification. Distribution of different soil types in the world and Slovakia, principles of the soil zonality.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 660					
A	B	C	D	E	FX
2.42	4.7	18.64	28.33	38.48	7.42
Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ FYG2/05		Course name: Physical geography 2			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Atmospheric conditions and their physical origins, general planetary air circulation, most important climatic types and the climate of Slovakia. Measuring of the basic meteorological events will be done by students in the practical part of this course. In the study of biogeography we will focus on the biosphere as a part of the physical-geographic sphere. Further focus will be put on the function and position of organisms on the surface, as well as the main regularities of their distribution throughout the world. Phytogeographical and zoogeographical regions of the world and Slovakia. In the practical part students acquaint with the soil profiles and important kinds of plants in Slovakia.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 623					
A	B	C	D	E	FX
28.41	27.29	26.0	11.24	6.58	0.48
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEE2/07		Course name: Geoecology			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Focus will be put on the development of this discipline, different dimensions of the physical – geographic complexes, regularities of the space differentiation of the physical – geographic sphere, evolution, and dynamics of the physical – geographic complexes. Synthesis of the principles of landscape and landscape-ecological planning.					
Recommended literature: BEDRNA, Z., a kol. 1992: Analýza a čiastkové syntézy zložiek krajinej štruktúry. Bratislava. Učebné texty, 95 s.. MIČIAN, Ľ., ZATKALÍK, F. 1984: Náuka o krajine a starostlivosť o životné prostredie. UK Bratislava skriptá, 137s. MIČIAN, Ľ. 1989: Pokus o novú definíciu krajinej ekológie. Ekológia (ČSFR), 3,1,Veda, Bratislava, s. 7-12. MIČIAN, Ľ. 2008: Všeobecná geoekológia. Bratislava: Geo-grafika, 88 s. – Skriptá.					
Course language:					
Course assessment Total number of assessed students: 638					
A	B	C	D	E	FX
5.17	12.54	19.91	24.45	35.58	2.35
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Dušan Barabas, CSc., Mgr. Ján Šašák					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEM2/05		Course name: Geomorphology			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 1125					
A	B	C	D	E	FX
8.98	21.07	20.8	16.62	21.78	10.76
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ GEO2a/15	Course name: Geometry I
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course: 6.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Two written tests. Written and oral examinations For continuous evaluation - max. 40 points for the written test - max. 20 points for oral exams - max. 40 points) Final score: A: 100-91 points, B: 90-81, C: 80-71, D: 70-61, E: 60-51, F: less than 51 points Note: In each of the student needs to have at least 40% max. number of points	
Learning outcomes: To acquaint students with the analytical geometry of linear and quadratic figures in Affine and Euclidean space.	
Brief outline of the course: Affine n-dimensional space - definition. Linear coordinate system. Subspaces, the parametric and non-parametric representation. The relative position of the two subspaces. Bundles of lines. The arrangement of points on the line. Convex sets. Changing the system of linear coordinates. Euclidean space - definition of (scalar and outer product). Euclidean distances and deviations subspaces. The rate of the size of convex sets. Triangle and trigonometric theorems. Conic and line.	
Recommended literature: 1. M.Sekanina, L.Boček, M.Kočandrle, J.Šedivý: Geometrie 1, SPN Praha 1986 2. M.Hejný, V.Zaťko, P.Kršňák: Geometria 1, SPN Bratislava 1985 3. J.Eliaš, J.Horváth, J.Kajan: Zbierka úloh z vyššej matematiky 1, Alfa Bratislava 4. M.Trenkler: Materiály uvedené na Internet.	

Course language: Slovak					
Course assessment Total number of assessed students: 113					
A	B	C	D	E	FX
15.93	16.81	23.01	17.7	15.93	10.62
Provides: doc. RNDr. Dušan Šveda, CSc., RNDr. Lucia Janičková					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEOM/15		Course name: Geography			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 1					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 86					
A	B	C	D	E	FX
15.12	18.6	27.91	16.28	22.09	0.0
Provides:					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEP2/13		Course name: Fundamentals of Geology for Geographers			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Courses have following objectives: firstly, to introduce the current theories of processes which occur in the Earth (global tectonics, species of magmatism), secondly, to describe the rock-forming minerals, taxology of intrusive rocks, taxology of sedimentary rocks and rocks which had overcome metamorphosis, basics of the regional geology of Slovakia, basics of the historical geology and paleontology.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 947					
A	B	C	D	E	FX
7.39	15.1	32.0	28.09	11.93	5.49
Provides: doc. RNDr. Zdenko Hochmuth, CSc., Ing. Katarína Bónová, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEX1/07		Course name: Geological excursion			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 3d Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Visiting of different localities in the Western Carpathian tectonic units - Flysh belt, Klippen belt, Central Western Carpathians. Visiting of several localities of mining in Slovakia and getting to know the process of manufacturing of the rocks.					
Recommended literature: Regionálne geologické mapy Slovenska (1:50 000) + Vysvetlivky. ŽEC, B. et al., 2005: Exkurzný sprievodca ku kongresu Slovenskej geologickej spoločnosti Zemplínska šírava - Medvedia hora. CompuGraph, Košice, 138s. BIELY, A. et al., 1996: Geologická mapa Slovenska, 1 : 500 000. MŽP SR, ŠGÚDŠ, Bratislava. MIŠÍK, M., 1976: Geologické exkurzie po Slovensku. SPN Bratislava, 276 s. NĚMEC, F., 1987: Kľúč na určovanie nerastov a hornín. SPN Bratislava, 240 s. PELLANT, CH., PELLANTOVÁ, H., 1994: Horniny a minerály. Osveta, Martin, 256 s.					
Course language:					
Course assessment Total number of assessed students: 357					
A	B	C	D	E	FX
79.83	15.41	2.52	0.0	0.0	2.24
Provides: Ing. Katarína Bónová, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GIS/15		Course name: Geographic Information Systems			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 6					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion: The assessment is a combination of continual control during the practicals and the final exam in the examination period. The continual assessment is performed during the semester and it involves 1 written test in the mid-term of the semester and a project report generated according to the assignment and practical skills acquired during the practicals. The student can go for the final exam in case he or she acquired at least the E mark in the continual assessment. The final assessment mark is the result of the average of the marks received in the mid-term test, project report and final exam. The final exam is a written test. The credits are given in case the student had reached at least the E mark in continual assessment and final exam. The following marking scheme is applied in the assessment: A (100-90 points), B (80-89 points), C (70-79 points), D (60-69 points), E (50-59 points), FX (0-49 points).					
Learning outcomes: The student will understand the basics of the theory of geoinformation science, GIS, and Remote Sensing. The student will be able perform tasks in a GIS software, generate thematic maps and conduct basic spatial analyses such as spatial queries, attribute queries, terrain modelling, editing custom geodata, importing geodata.					
Brief outline of the course:					
Recommended literature:					
Course language: Slovak or Czech or English					
Course assessment Total number of assessed students: 302					
A	B	C	D	E	FX
30.79	23.51	26.16	12.58	6.95	0.0
Provides: doc. Mgr. Michal Gallay, PhD., Mgr. Ján Šášak					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ GNG/15	Course name: Graphic tools in geography
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: During the semester, students will need to hand in the outputs of the practicals. The resulting assessment is based on the final practical skills verification and delivery of the outputs of practicals. From the practical skills verification, students must obtain at least 90 points to get the A mark, at least 80 points to get B, at least 70 points to get C, at least 60 points to get D, at least 50 points to get E. The credits shall not be granted to a student who does not hand in one or more outputs of the practicals or he/she will get less than 50 points out of 100.	
Learning outcomes: The main learning outcomes include practical skills mainly in software COREL Graphics Suite focusing on procces vector and raster data to produce and edite map layouts, pictures using in geographical research and teaching geography.	
Brief outline of the course: Introduction to the exercises, criteria of assessment, recommended literature, explanation of the main principle of vector and raster graphics, graphic formats (JPG, TIF, BMP, PNG), adjustment of the image size. Raster graphics: joining of maps into a single unit. Raster graphics: drawing, text editing. Image Adjustment for publication, fill in missing picture elements, working with a mask, retouch. Vector graphics: manual vectorization of raster background (selected municipalities map of the district), curves and areas, tools Bezier tool, functions, Weld, Trim. Vector graphics: cartogram creation of cartodiagrams and graphical scale for the selected district, tools Basic shapes, Bezier tool, Align. Vector graphics: vector formats, edit existing vector background, creating cartograms. Vector graphics: manual vectorization of raster surface (topographic map with contour lines), zhladzovanie curves show qualitative phenomena.	
Recommended literature: KADAVÝ, D., PÍRKOVÁ, K. 2008: CorelDRAW X4: Podrobná uživatelská příručka. Praha (Computer Press). CORELDRAWTIPS 2013: Corel Draw Tips. http://coreldrawtips.com/site/coreldraw-tutorials COREL 2013: CorelDRAW Graphics Suite Tutorials: http://www.corel.com/corel/pages/index.jsp?pgid=800382&storeKey=ca&languageCode=en	
Course language:	
Course assessment	

Total number of assessed students: 197					
A	B	C	D	E	FX
64.97	17.26	12.69	3.55	1.52	0.0
Provides: doc. Mgr. Michal Gallay, PhD., doc. RNDr. Ján Kaňuk, PhD., Mgr. Jozef Šupinský					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GVS/15		Course name: Geography of Public Administration			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: active participation, works during semester, final test. The student is awarded a grade provided they attend the classes regularly, submit and present the seminar work and write a final test with a value 50 % at least - grade E.					
Learning outcomes:					
Brief outline of the course: public administration (PA), system of PA in Slovakia and models of public administration, history of public administration on the territory of Slovakia, division of PA - state government, self-government - local and regional, financial aspects of local self-government units, intermunicipal cooperation - microregions, common communal authorities, local action group, local government reform - Slovakia and other European countries, the multilevel city self-government - the city of Košice, regional self-government, territorial-administrative division, system of public administration in model European states.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 209					
A	B	C	D	E	FX
21.53	33.97	19.14	15.31	9.57	0.48
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Stela Csachová, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HGS/15		Course name: Human Geography of Slovakia			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 387					
A	B	C	D	E	FX
3.1	8.53	17.57	36.43	29.2	5.17
Provides: prof. RNDr. Peter Spišiak, CSc., Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HUG2a/05		Course name: Human geography (productive sphere)			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: Location theories, factors and methods of industry evaluation. Territorial industrial units and regionalisation of the industry in Slovakia. Geographical characteristics of selected types of industry. Relationship of industry and environment. Trends in development and problems of the world economy. Development of agriculture and regularities of distribution of agricultural lands. The agricultural countries and their typology. The land use map. Geography of forests and its typology.					
Recommended literature: FALKOWSKI, J., KOSTROWICKI, J., 2001: Geografia rolnictwa świata. PWN, Warszawa, 516 p. KNOX, P., L., et al. 2010: Human geography. Places and regions in Global Context. pearson International Edition., 513 p. KOREC, P. 1994: Humánna geografia 1. Prírodovedecká fakulta, Univerzita Komenského, Bratislava, 120 s. MIRVALD, S., 2002: Geografie dopravy II. ZČU Plzeň, 56 s. MIRVALD, S., 2002: Geografie dopravy III. ZČU Plzeň, 43 s. POPJAKOVÁ, D., 1997: Základné kapitoly z geografie priemyslu, Prešov: PU, 144 s. SPIŠIAK, P., 2005: Základy geografie poľnohospodárstva a lesného hospodárstva. Prírodovedecká fakulta, Univerzita Komenského, Bratislava. 140 s. TOUŠEK, V. a kol., 2008: Ekonomická a sociální geografie, Plzeň, 2008, 411 s.					
Course language:					
Course assessment Total number of assessed students: 589					
A	B	C	D	E	FX
7.47	22.07	29.2	27.33	11.71	2.21
Provides: prof. RNDr. Peter Spišiak, CSc., Mgr. Marián Kulla, PhD.					

Date of last modification: 23.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ HUGN/15		Course name: Human geography (Non-production Systems)			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature: BOROVSKEÝ, J. a kol., 2008: Cestovný ruch, trendy a perspektívy. Iura Edition, 280 s. HALÁS, M., 2000: Zahraničný obchod SR s ČR. Geographical Studies 7, Constantine the Philosopher University Nitra, s. 98-107. HALL, C.M. - PAGE, S.J. 2002: The geography of tourism and recreation, 2. edition, London and New York, 399 p. HAVRLANT, J., 2007: Geografie cestovního ruchu I. Základy geografie cestovního ruchu, Ostravská univerzita, 41 s. MARIOT, P., 1983: Geografia cestovného ruchu. Veda, Bratislava, 224 s. OTRUBOVÁ, E., 2003: Humánna geografia II (Geografia zahraničného obchodu, Geografia cestovného ruchu). Prírodovedecká fakulta UPJŠ, Košice, 105 s. ŠTEPÁNEK, KOPAČKA, ŠÍP, 2001: Geografie cestovního ruchu, Vydalo Karolinum Praha, 228s.					
Course language:					
Course assessment Total number of assessed students: 400					
A	B	C	D	E	FX
15.25	21.75	28.25	22.25	11.25	1.25
Provides: Mgr. Marián Kulla, PhD., prof. RNDr. Peter Spišiak, CSc.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/HYP/15		Course name: Practical course of Hydrology			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 53					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: RNDr. Dušan Barabas, CSc.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ INP/17		Course name: Inclusive Pedagogy			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides: Mgr. Lucia Diheneščiková, PhD.					
Date of last modification: 13.06.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ IPU/10		Course name: Informatics course for teachers of mathematics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Elaborating test by using a computer. Solving problems of worksheet and elaboration of seminar work.					
Learning outcomes: To develop the students' knowledge and skills in the basics of working with standard ICT, which provide opportunities for their use in mathematics education. To teach students to use the basic commands of Logo language for writing and generalization algorithms for constructing geometric shapes and basic principles of creation of constructions in the environment of dynamic geometry. To develop creative and evaluative students' ability to allow meaningful integration of modern technologies in mathematics education.					
Brief outline of the course: Basics of development of algorithms in Logo. Basics of working in the dynamic geometry environment. Educational applications and Internet in mathematics education. Use of numerical and graphical representations of data and modelling in the spreadsheet environment.					
Recommended literature: B. Brdička: The Role of Internetu in Education, 2003, http://it.pedf.cuni.cz/~bobr/role/econt.htm . S. Lukáč a kol.: IKT vo vyučovaní matematiky, Asociácia projektu Infovek 2002. M. Černochová a kol.: Využití počítače při vyučování. Portál, 1998. Z. Šťastný: Matematické a statistické výpočty v Microsoft Excelu, Computer Press 2001.					
Course language: Slovak					
Course assessment Total number of assessed students: 141					
A	B	C	D	E	FX
54.61	26.24	9.93	7.09	2.13	0.0
Provides: doc. RNDr. Stanislav Lukáč, PhD.					
Date of last modification: 22.02.2017					

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth,
CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ KAG/15	Course name: Cartography and Geoinformatics
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course: 2.	
Course level: I.	
Prerequisites:	
Conditions for course completion: During the semester it is necessary to pass out the work outputs from the exercises. The knowledge gained on the exercises will be verified by continuous written examinations. The number of work outputs and written examinations will be announced at the beginning of the semester. It is possible to obtain 30% of the assessment criteria for the exercise (work outputs and written examinations). The resulting assessment from the exercise is based on the method fulfilled/not fulfilled. The final evaluation of the study subject is based on the combination of the evaluation conditions from the exercise and the final exam. The final exam may be enrolled by a student who has fulfilled the requirements for attending the exercises. The final assessment is the weighted average of the exercise assessment (30%) and the final exam (70%). Credits are awarded only to a student who achieves rating at least at the grade level of the grade E. Credits will not be awarded to a student who does not meet the requirements of the exercise and the exam is rated FX.	
Learning outcomes: The main learning outcomes include theoretical and practical skills in cartography and geoinformatics. Students understand cartographic and GIS terminology, students can apply cartographic approaches and methods using GIS, projections and define the content and composition of maps in GIS.	
Brief outline of the course: Cartography - the branch of science, position in the system of sciences, the history of cartography, topographic mapping in Slovakia; Cartographic projects, cartographic interpretation; Description maps, geographical names, cartographic generalization, State map series; Cartometry and morphometry; Mathematical cartography (reference area map projection and distortion). Geoinformatics – the branch of science, elements of GIS, digital representation of landscape, raster and vector data, data collection and processing data for GIS, geospatial database, visualization and cartographic representation using GIS, applications of GIS.	
Recommended literature: HOFIERKA, J., J. KAŇUK, M. GALLAY, 2014. Geoinformatika. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach. ISBN 978-80-8152-178-2. HOJOVEC, V. et al., 1987. Kartografie. Praha: Geodetický a kartografický podnik v Praze. ISBN 29-621-87.	

LONGLEY, P.A., M. GOODCHILD, D. J. MAGUIRE, D. W. RHIND, 2010. Geographic Information Systems and Science. 3rd ed. Hoboken: Wiley & Sons, ISBN 978-0-470-72144-5.
 PRAVDA, J., D. KUSEDOVÁ, 2004. Počítačová tvorba tematických máp. Bratislava: Univerzita Komenského v Bratislave. ISBN 80-223-2011-0.
 ROBINSON, A. H. et al., 1995. Elements of Cartography. 6th ed. Hoboken: Wiley & Sons. ISBN 0-471-55579-7.
 VOŽENÍLEK, V. et al., 2011. Metody tematické kartografie - Vizualizace prostorových jevů. Olomouc: Univerzita Palackého v Olomouci. ISBN 978-80-24427-90-4.

Course language:

Course assessment

Total number of assessed students: 249

A	B	C	D	E	FX
10.44	18.07	21.69	18.07	26.1	5.62

Provides: prof. Ing. Vladimír Sedlák, PhD., doc. RNDr. Ján Kaňuk, PhD., Mgr. Katarína Onačillová

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ KAR/05		Course name: Basis of karstology and speleology			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 209					
A	B	C	D	E	FX
77.99	14.35	5.74	0.0	1.91	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., RNDr. Alena Gessert, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ KMG/17		Course name: Kvantitatívne metódy v geografii			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 53					
A	B	C	D	E	FX
24.53	28.3	26.42	13.21	7.55	0.0
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Janetta Nestorová-Dická, PhD., prof. Mgr. Jaroslav Hofierka, PhD.					
Date of last modification: 13.03.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ KP/12	Course name: Survival Course
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 329	
abs	n
47.11	52.89
Provides: MUDr. Peter Dombrovský, Mgr. Marek Valanský	
Date of last modification: 23.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/KRS/08	Course name: Complex geographic characteristics of selected world regions
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 6.	
Course level: I.	
Prerequisites:	
Conditions for course completion: At the beginning of semester, students will be told the topics to be drawn up as written report and presented in a slideshow. This part is 50 % of total grading. The results of tests written during the semester constitute another 50 % of total grading. To obtain A grade, weighted average of the both parts of examination must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain less than 50 % from any of both parts of examination.	
Learning outcomes: Understanding of causal relations between individual geographic phenomena in spatial and temporal context of individual regions; extended knowledge about selected regions.	
Brief outline of the course: Geographic location, geologic history and structure, orography and shapes of coast, climate, hydrology, soils and biogeography, protection of nature, current landscape and its transformation, historical and political development, population and sites, economy and integration groupings in selected regions of the world.	
Recommended literature: DE BLIJ, H. J. et al: 2013: The World Today - Concepts and Regions in Geography, 6th edition. New York (Wiley), 528 p. HOBBS, J. J. 2010: Fundaments of World Regional Geography, 2nd edition. Belmont (Brooks/Cole), 438 p. WEIGHTMAN, B. 2010: Dragons and Tigers – A Geography of South, East and Southeast Asia, 3rd edition. Hoboken (Wiley), 523 p. BAAR, V. 2002: Národy na prahu 21. století. Emancipace nebo nacionalismus? Ostrava (Ostravská univerzita), 416 s. BRADSHAW, W. et al. 2012: Contemporary World Regional Geography, 4th edition. New York (McGrawHill), 620 p.	
Course language: Slovak and English	
Course assessment Total number of assessed students: 453	

A	B	C	D	E	FX
28.48	35.98	21.85	8.17	4.86	0.66
Provides: Mgr. Ladislav Novotný, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ KVA/15		Course name: Landscape in the Quarternary			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 329					
A	B	C	D	E	FX
46.81	30.7	15.81	5.17	1.52	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., Ing. Katarína Bónová, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ LCO/10		Course name: Linear and integer programming			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ÚMV/ALGa/10					
Conditions for course completion: Two tests, using software CASSIM, oral exam					
Learning outcomes: To learn the solving methods of linear programming					
Brief outline of the course: Formulation of linear and integer programs. Graphic solution. Simplex method, its variants and finiteness. Duality and its economic interpretation. Sensitivity analysis and parametric programming. Algorithms for integer programming.					
Recommended literature: Ch. Papadimitriou – K. Steiglitz: Combinatorial Optimization: Algorithms and Complexity, 1984 R.J. Vanderbei, Linear Programming: Foundations and Extensions (Kluwer 2001), electronic version: http://www.princeton.edu/~rvdb/LPbook/					
Course language: Slovak					
Course assessment Total number of assessed students: 144					
A	B	C	D	E	FX
21.53	14.58	20.83	21.53	20.83	0.69
Provides: doc. RNDr. Roman Soták, PhD., RNDr. Andrej Gajdoš					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ LKSp/13	Course name: Summer Course-Rafting of TISA River
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 126	
abs	n
45.24	54.76
Provides: Mgr. Peter Bakalár, PhD.	
Date of last modification: 23.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ LTM/10		Course name: Logic and set theory			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 2 Per study period: 42 / 28 Course method: present					
Number of credits: 6					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚMV/MANb/10					
Conditions for course completion: Exam					
Learning outcomes: To obtain a basic knowledge on the mathematical notion of an infinity. Analysis of the notion of a proof.					
Brief outline of the course: Set as a mathematical formularization of an infinity. Properties of the set of reals. Mathematical induction. Relations and mappings. Finite and countable sets. Cardinality of continuum. Elementary cardinal arithmetics. Sentential calculus, an axiomatization. Completeness Theorem. Methods of proofs. Language of predicate calculus, examples. Axiomatizations of predicate calculus and the notion of a proof. Methods of proofs in predicate calculus.					
Recommended literature: E. Mendelson, Introduction to Mathematical Logic, van Nostrand 1964.					
Course language: Slovak					
Course assessment Total number of assessed students: 533					
A	B	C	D	E	FX
12.57	15.95	19.7	24.2	17.45	10.13
Provides: RNDr. Jaroslav Šupina, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MAE/10		Course name: Macroeconomics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Final mark is given based on the results of the tests written during the semester and oral exam, that evaluates the verbal argument about the studied models.					
Learning outcomes:					
Brief outline of the course: Basic macroeconomic notions: Gross domestic product, inflation, unemployment.. Analysis of goods markets. Financial markets. IS-LM model in closed economy. Open economy. IS-LM model in open economy. Models of labour market. Phillips curve, Okun law. Inflation and economic growth. High depth.					
Recommended literature: 1. Olivier Blanchard, Alessia Amighini, Francesco Giavazzi: MACROECONOMICS, A EUROPEAN PERSPECTIVE, Pearson Education, 2010 2. N.GREGORY MANKIW, MACROECONOMICS, 7th Edition, Harvard University, Worth Publishers 2009					
Course language: Slovak and English					
Course assessment Total number of assessed students: 65					
A	B	C	D	E	FX
20.0	13.85	21.54	23.08	13.85	7.69
Provides: prof. RNDr. Katarína Cechlárová, DrSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MAN1d/10		Course name: Mathematical analysis IV			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 4 / 2 Per study period: 56 / 28 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ÚMV/MAN1c/10 or ÚMV/MAN2c/10					
Conditions for course completion: exam					
Learning outcomes: Understanding of the basic rigorous ideas of Mathematical Analysis.					
Brief outline of the course: Metric spaces. Complete, compact and connected sets. Rings sigma-rings. Measure. Outer measure. Lebesgue measure. Measurable sets. Measurable functions. Lebesgue integral. Lebesgue integral versus Riemann integral. Calculations of Lebesgue integrals. Applications.					
Recommended literature: B. S. Thomson, J. B. Bruckner, A. M. Bruckner: Elementary Real Analysis, Prentice Hall, 2001. A. M. Bruckner, J. B. Bruckner, B. S. Thomson: Real Analysis, Prentice Hall, 1997. T. Neubrunn, B. Riečan: Miera a integrál, Veda, Bratislava, 1981. B. Riečan, T. Neubrunn: Teória miery, Veda, Bratislava, 1992. T. A. Леонтьева, В. С. Панферов, В. С. Серов: Задачи по теории функций действительного переменного, Издательство Московского университета, Москва, 1997.					
Course language: Slovak					
Course assessment Total number of assessed students: 218					
A	B	C	D	E	FX
3.67	4.59	13.3	22.94	43.12	12.39
Provides: prof. RNDr. Jozef Doboš, CSc., RNDr. Jaroslav Šupina, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MAN2c/10		Course name: Mathematical analysis III			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites: ÚMV/MANb/10					
Conditions for course completion: Two written test during semester and activity student to practice. Final evaluation is given by continuous assessment, written and oral part of the exam.					
Learning outcomes: The purpose of the course is to provide introductory knowledge in Riemann integral calculus of real functions of one real variable and series of real functions. To develop computational skills in the field and extend the student ability to use this theory in applications. To teach the basic knowledge of the subject mater in the syllabus and develop the ability to use this theory.					
Brief outline of the course: Definite Riemann integral - definition, elementary properties, calculation methods, applications. Improper Riemann integral. Sequences and series of real functions – pointwise and uniform convergence, properties of the limit function and the sum. Power series, Taylor series and their applications.					
Recommended literature: 1. O. Hutník: Určitý integrál, UPJŠ, Košice, 2012 (in Slovak). 2. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006. 3. Bruckner, A. M. - Bruckner J. B. - Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008. 4. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.					
Course language: Slovak					
Course assessment Total number of assessed students: 640					
A	B	C	D	E	FX
7.34	6.88	12.81	18.75	42.34	11.88
Provides: doc. RNDr. Ondrej Hutník, PhD.					

Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ MAN2d/10	Course name: Mathematical analysis IV
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of credits: 5	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites: ÚMV/MANb/10	
Conditions for course completion: Continuous assessment is taken the form of small tests and two main tests during the semester. Final evaluation is given by continuous assessment (40%), written and oral part of the exam (60%).	
Learning outcomes: To teach the basic knowledge of the subject matter in the syllabus and develop the ability to use this theory. The students also learn mathematical culture, notation and mathematical way of thinking and expression.	
Brief outline of the course: 1. Metric space - Euclidean space, topological properties of points and sets in metric space. 2. Function of several real variables - basic concepts, limits and continuity. 3. Differential calculus of functions of several real variables - partial derivative, differentiability and total differential (also higher order), Taylor polynomials, directional derivative, local and global extrema, constrained local extrema. 4. Double (two dimensional) integral - definition, calculation methods, applications.	
Recommended literature: 1. L. Kľuvánek, I. Mišík, M. Švec: Matematika I, II, SVTL, Bratislava, 1959 (in Slovak). 2. Z. Došlá, O. Došlý: Diferenciální počet funkcí více proměnných, vysokoškolský učebný text, Masarykova univerzita v Brně, Brno, 2003 (in Czech). 3. R. E. Williamson, H. F. Trotter: Multivariable mathematics, Prentice Hall (Pearson), Upper Saddle River, 2004. 4. B. S. Thomson, J. B. Bruckner, A. M. Bruckner: Elementary real analysis, Prentice Hall (Pearson), Lexington, 2008. 5. J. Stewart: Calculus: Early transcendentals, Brooks Cole (Thomson), Toronto, 2008. 6. P. Pták: Calculus II (A course for engineers), ČVUT v Prahe, Praha, 1997. 7. J. Eliaš, J. Horváth, J. Kajan: Zbierka úloh z vyššej matematiky 3, 4, SVTL, Bratislava, 1966 (in Slovak).	
Course language: Slovak	
Course assessment	

Total number of assessed students: 288					
A	B	C	D	E	FX
9.38	9.72	17.36	19.44	34.72	9.38
Provides: RNDr. Lenka Halčinová, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MANa/10		Course name: Mathematical analysis I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 3 Per study period: 42 / 42 Course method: present					
Number of credits: 7					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Two written test during semester and activity student to practice. Final evaluation is given by continuous assessment, written and oral part of the exam.					
Learning outcomes: The aim of the course is to give introductory knowledge about real numbers, sequences and series of real numbers, and to develop certain calculation skills in the field.					
Brief outline of the course: Real numbers - axioms and properties. Real functions - basic properties (monotone, bounded, even/odd, inverse), transformations of graphs of functions. Infinite sequences - operations, boundedness, monotonicity, convergence. Infinite series - operations, convergence, criteria of convergence.					
Recommended literature: 1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006. 2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008. 3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.					
Course language: Slovak					
Course assessment Total number of assessed students: 1322					
A	B	C	D	E	FX
6.28	7.64	12.25	13.24	35.25	25.34
Provides: doc. RNDr. Ondrej Hutník, PhD., RNDr. Lenka Halčinová, PhD., RNDr. Viera Šottová					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MANb/10		Course name: Mathematical analysis II			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 4 / 3 Per study period: 56 / 42 Course method: present					
Number of credits: 8					
Recommended semester/trimester of the course: 2.					
Course level: I.					
Prerequisites: ÚMV/MANa/10					
Conditions for course completion: Two written test during semester and activity student to practice. Final evaluation is given by continuous assessment, written and oral part of the exam.					
Learning outcomes: The purpose of the course is to provide introductory knowledge in differential and integral calculus of real functions of one real variable and to develop computational skills in the field.					
Brief outline of the course: Limit and continuity of real functions, elementary functions. Differential calculus - derivatives of the first and of higher orders, the basic theorems of differential calculus and their use to study properties and behavior of functions. Indefinite integral - basic methods for finding primitive functions. Newton integral and its basic properties.					
Recommended literature: 1. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006. 2. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008. 3. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.					
Course language: Slovak					
Course assessment Total number of assessed students: 844					
A	B	C	D	E	FX
8.65	7.94	12.44	18.72	36.73	15.52
Provides: doc. RNDr. Ondrej Hutník, PhD., Mgr. Katarína Lučivjanská, PhD., RNDr. Lenka Halčinová, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ MG/14	Course name: Geography of mining
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: The evaluation is based on a combination of continuous and final control. The continuous control is carried out during the teaching part by written test with a share of 30 % of the final evaluation. The final control is written and constitutes 70 % of the final evaluation. The resulting evaluation is a weighted average of the continuous (30 %) and final (70 %) controls. Credits will be awarded only to student who achieves the evaluation at the minimum level of the mark E in every part of the evaluation.	
Learning outcomes: To acquaint students with basic facts and knowledge of the history of mining science from the view of geographic aspect to obtain information overview of the history of world and Slovak mining for geographic purposes.	
Brief outline of the course: Historical foundations of the global mining industry, mining oldest written records of mining heyday in the Middle Ages, the first mining maps, Slovak ore mining in the Austro-Hungarian Empire, First World Mining Academy in Banská Štiavnica mining and migration of the population, the world "gold rush", salt roads Europe, coal mining and electrification of industry, environmental consequences of mining devastation, mining open-air museums in Slovakia and Europe and their importance for the promotion of tourism.	
Recommended literature: Odporúčaná literatúra: Ježek, B. a Hummel, J., 2006: Georgius Agricola, Dvanásť kníh o baníctve a hutníctve. Preklad z českého originálu: Petr, K. a Petrová, M., Ostrava: Montanex a.s., 2006, 546s., ISBN 80-7225-218-6. Puzder, J., 2000: Samuel Mikovíni, život a dielo. Košice: FBERG TU Košice, 115s. Vozár, J., 2000: Zlatá kniha baníctva. Košice: Tibor Turčan/Banská agentúra, 2000, 263s., ISBN 80-968421-4-5. Vozár, J., 2002: Kódex mestského a banského práva Banskej Štiavnice. Košice: Tibor Turčan/Banská agentúra, 2002, 71s., ISBN 80-968621-2-X. Zícha, Z., 2005: Back to the past. The history of technology and manpower in the mining is a legacy which cannot be forgotten. Ústí nad Labem: CDL Design s.r.o., 2005, 98p., ISBN 80-902278-9-9.	

Course language: Slovak					
Notes: without notices					
Course assessment Total number of assessed students: 60					
A	B	C	D	E	FX
55.0	33.33	5.0	5.0	1.67	0.0
Provides: prof. Ing. Vladimír Sedlák, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/MHG1/07		Course name: Mapping course of human geography			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 4d Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 509					
A	B	C	D	E	FX
95.28	0.98	1.57	1.57	0.59	0.0
Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ MIE/13		Course name: Microeconomics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion: The minimum necessary number of points from tests written during semester is 50%, plus the ability of verbal argumentation in the final oral exam.					
Learning outcomes: Understanding of basic principles of microeconomics and ability to apply them in practical situations.					
Brief outline of the course: Economics and economy. Supply and demand. Consumer Theory. Theory of firm. Perfect competition. Monopoly. Labour market. Market failure. Externalities and Public goods.					
Recommended literature: 1. http://umv.science.upjs.sk/cechlarova/MIE/MIE.htm - podklady k prednáška, testy na cvičenia, materiály z dennej tlače 2. H.L. Varian, Intermediate Mikroekonomics, WW Norton, 1993 3. J.M. Perloff, Microeconomics, 6th Edition, Addison Wesley, 2012 4. J. Sloman, Economics, 6th Edition, Prentice Hall, 2006					
Course language: Slovak					
Course assessment Total number of assessed students: 69					
A	B	C	D	E	FX
24.64	20.29	18.84	21.74	13.04	1.45
Provides: prof. RNDr. Katarína Cechlárová, DrSc., RNDr. Veronika Kopčová					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/MIK/15		Course name: Microgeography			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion: Participation in exercises, presentation of seminar topics, graduation the final test. Credits will not be awarded to students, who will not have successfully processed and presented the seminar topic and does not pass the final test min. to 60%.					
Learning outcomes: Ability of synthesis and analysis of selected micro-region for the needs of local government.					
Brief outline of the course: 1. The micro-region and the local region in the context of regional taxonomic levels. 2. Theory and Methodology, collection of information (data collection). 3. Differentiation landscape sphere and cultural landscapes of the example chosen region (Location - Geology - Relief - Climate - Rivers - Soils - Flora - Fauna - Population (population dynamics, forecasts, Statistical offices) - Settlements (change in the function of settlements, place in the settlement system, land use map, questionnaires, mapping) - Primary sector - Secondary sector - Tertiary Sector. 4. Regionalization – branch, complex, land use. 5. TUR - MUSES - USES - RUSES. 6. Complex presentation of the research territory at the Municipal Office.					
Recommended literature: DUBCOVÁ, A. a kol. 2012: Mikrogeografia - krajina okolo nás. FPV UKF Nitra, 185 s. KANDRÁČOVÁ, V., MICHAELI, E. 1998: Ľubotice. OÚ Ľubotice. 116 s. LAUKO, V. 1997: Fyzická geografia Slovenska 1. UK, Bratislava. 148 s. LUKNIŠ, M. 1977: Geografia krajiny Jura pri Bratislave. UK, Bratislava. 211 s. Základná mapa SR 1: 10 000 Kolektív, 1977: Vlastivedný slovník obcí na Slovensku diely I-II, Veda Bratislava. 528 s., 519 s. Kolektív, 1978: Vlastivedný slovník obcí na Slovensku diely III, Veda Bratislava. 533 s.					
Course language: Slovak					
Course assessment Total number of assessed students: 52					
A	B	C	D	E	FX
48.08	40.38	9.62	1.92	0.0	0.0

Provides: prof. RNDr. Peter Spišiak, CSc.
Date of last modification: 23.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/MMKV/17		Course name: Multiculturalism and Multicultural Education			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 22					
A	B	C	D	E	FX
36.36	45.45	9.09	4.55	4.55	0.0
Provides: Mgr. Lucia Diheneščiková, PhD.					
Date of last modification: 13.06.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/MRUa/15		Course name: Mathematical problem solving strategies I			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Evaluation will be awarded on the basis of continuous assessment and final test.					
Learning outcomes: To acquaint students with problems and strategies for the solutions of the problems at the primary and secondary school, and with the specific problems of teaching mathematics at primary and secondary school.					
Brief outline of the course: Basic knowledge of school mathematics, different strategy of problem solution, problems from mathematical competitions concerning Equations and inequalities and their systems, Functions, Financial Mathematics.					
Recommended literature: [1] Hejný, M. a kol., Teória vyučovania matematiky 2. SPN, Bratislava 1989 (in Slovak) [2] Kopka, J., Hrozny problémů ve školské matematice, Univerzita J. E. Purkyně, Ústí nad Labem 1999 (in Czech) [3] Učebnice a zbierky úloh z matematiky ZŠ a SŠ (in Slovak)					
Course language: Slovak					
Course assessment Total number of assessed students: 144					
A	B	C	D	E	FX
31.25	22.22	23.61	11.11	11.11	0.69
Provides: doc. RNDr. Stanislav Lukáč, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/MRUB/15		Course name: Mathematical problem solving strategies II			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚMV/MRUa/15					
Conditions for course completion: The award is based on the results of written checks carried out during the semester. The resulting trial is granted on the basis of continuous assessment and seminar work.					
Learning outcomes: To acquaint students with problems and strategies for the solutions of the problems at the primary and secondary school, and with the specific problems of teaching mathematics at primary and secondary school.					
Brief outline of the course: Basic knowledge of school mathematics, various methods for the task, the role of mathematical competitions for thematic units Planimetry, stereometry, goniometry.					
Recommended literature: [1] Hejný, M. a kol., Teória vyučovania matematiky 2. SPN, Bratislava 1989 (in Slovak) [2] Kopka, J., Hrozny problémů ve školské matematice, Univerzita J. E. Purkyně, Ústí nad Labem 1999 (in Czech) [3] Jonson-Wilder.S., Mason.J.: Developing thinking in Geometry, Sage, 2009 [4] Učebnice a zbierky úloh z matematiky ZŠ a SŠ					
Course language: Slovak					
Course assessment Total number of assessed students: 116					
A	B	C	D	E	FX
36.21	18.97	28.45	10.34	6.03	0.0
Provides: doc. RNDr. Dušan Šveda, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/MRUc/15		Course name: Mathematical problem solving strategies III			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites: ÚMV/MRUb/15					
Conditions for course completion: During the semester will be 3 written exams. Evaluation A - at least 90% of the points, evaluation B - at least 80%, evaluation C at least 70%, evaluation D at least 60%, evaluation E rating of at least 50% of the points. Credits shall not be granted to a student who receives less than 50% of the points.					
Learning outcomes: Students become familiar with the tasks, methods of problem solving, solving strategies and with specific problems of teaching mathematics at primary and secondary schools to topics combinatorics, probability and statistics.					
Brief outline of the course: Basic knowledge of school mathematics, from the topics: combinatorics, probability and statistics.					
Recommended literature: Hecht, T., Sklenáriková, Z., Metódy riešenia matematických úloh, Bratislava, SPN, 1992. (in slovak) Hecht, T. a kol., Matematika pre 1.-4. ročník gymnázií a SOŠ, OrbisPictusIstropolitana, Bratislava 1999-2002. (in slovak) Krantz, S.G., Techniques of Problem Solving, AMS, 1997. Larson, L.C., Metódy riešenia matematických problémov, Bratislava, Alfa, 1990. (in slovak)					
Course language: Slovak					
Course assessment Total number of assessed students: 120					
A	B	C	D	E	FX
27.5	33.33	22.5	10.0	6.67	0.0
Provides: RNDr. Ingrid Semanišinová, PhD.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/MTM/14		Course name: Mathematics			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 1					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites: ÚMV/MAN2c/10 and ÚMV/ALG2b/10 and ÚMV/ATC/10					
Conditions for course completion: Acquiring the required number of credits in the structure defined by the study plan.					
Learning outcomes: Evaluation of student's competences with respect to the profile of the graduate.					
Brief outline of the course:					
Recommended literature:					
Course language: Slovak					
Course assessment Total number of assessed students: 36					
A	B	C	D	E	FX
25.0	16.67	33.33	22.22	2.78	0.0
Provides:					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/NGS/06		Course name: German geographical seminar			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: On the basis of part-time works, 5 in total (à 20 points), the student will receive the end evaluation of the subject. For each work he should acquire minimal 11 points, so 55 points in total.					
Learning outcomes: After the subject attendance the student should be able to communicate with professional german terminology in writing and oral presentation.					
Brief outline of the course: The academic geographical terminology on particular topics of physical and human geography will be concerned. The world professionals of geography in the past and present. The system of university studies in Germany, German geographical periodicals, monographs. Geography of Germany.					
Recommended literature: BAUER, J., ENGLERT, W., MEIER, U., MORGENEYER, F., WALDECK, W., 2002: Physische Geographie kompakt. Spektrum Akademischer Verlag Heidelberg. 192 s. HOLLERBACH, E., NESS, N., 2002: Rhein- von Mainz bis Koeln. Rahmel - Verlag GmbH, Pulheim. 96 s. KOLEKTIV, 2004: Deutschland. Verlag Karl Baedeker Ostfildern. 1182 s. KUBALLA, S., 2001: Unbekanntes Deutschland. ADAC Verlag GmbH Munchen. 432 s. STRAHLER, H.A., STRAHLER, N.A., 1999: Physische Geographie. Verlag Eugen Ulmer Stuttgart. 294 s. ZEPP, H., MÜLLER, M.J., 1999: Landschaftsökologie Erfassungsstandards. Flensburg. 312 s.					
Course language: slovak, german					
Course assessment Total number of assessed students: 14					
A	B	C	D	E	FX
64.29	21.43	0.0	0.0	7.14	7.14
Provides: RNDr. Alena Gessert, PhD.					

Date of last modification: 23.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/ NJKG/07		Course name: Communicative Grammar in German Language			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course:					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 47					
A	B	C	D	E	FX
53.19	12.77	10.64	4.26	10.64	8.51
Provides: PaedDr. Ingrid Puchalová, PhD.					
Date of last modification: 20.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/OBY2/03	Course name: Geography of population and settlements
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present	
Number of credits: 4	
Recommended semester/trimester of the course: 3.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Evaluation of student performance is carried out by combining ongoing review during the term of examination for the period of the semester. Continuous control consists of min. 80 % of the active participation of students in teaching and successfully solving assignments. If a student does not reach required active participation of teaching and successfully does not solve the given problem can not log on to the test.	
Learning outcomes: The student will acquire theoretical and methodological basis of Geography of Population and Settlements. Students will acquire a basic spatial differentiation of population and settlements in the world according to basic characteristics.	
Brief outline of the course: Population geography as a science discipline; Trends and forecasts of the world population; Distribution of population; Natural and mechanical movement of population (natality, mortality, balance natural movement of the population, model of demographic cycle, population migration); Population structure on the basis of biological, cultural and economic characteristics; Geography settlements as a scientific discipline; Settlement development and settlement systems; Geographical location of settlements; The structure of settlements by size, dynamics and morphology; Urban geography (definition of city, creation of city and functions cities); The hierarchy of settlements and Gravity; Urbanization (basic concepts, indicators, aspects and methods of research); Rural settlement systems (compact and scattered rural settlements and their geographical interpretation). Seminars Seminars during the semester are oriented to problem solving in order to practice, resp. demonstrate phenomena studied in different regional units of Slovakia, Europe or Worldwide.	
Recommended literature: BAŠOVSKÝ, O., MLÁDEK, J. 1989: Geografia obyvateľstva a sídel. Prírodovedecká fakulta UK, Bratislava, 221. CHALUPA, P., TARABOVÁ, Z. 1990: Geografie obyvateľstva, demografie, geografie sídel. MU, Brno. MATLOVIČ, R. 2001: Geografia relígií. Fakulta humanitných a prírodných vied Prešovskej univerzity v Prešove. Prešov, 375.	

MLÁDEK, J. 1992: Základy geografie obyvatel'stva. SPN Bratislava, 230.
 MLÁDEK, J. a kol. 2006: Atlas obyvatel'stva Slovenska. UK Bratislava, 168.
 MLÁDEK, J., KUSEDOVÁ, D., MARENČÁKOVÁ, J., PODOLÁK, P., VAŇO, B. 2006: Demogeografická analýza Slovenska. UK Bratislava, 222.
 PAVLÍK, Z., RYCHTAŘÍKOVÁ, J., ŠUBRTOVÁ, A. 1986: Základy demografie. Academia Praha.
 VOTRUBEC, C. 1980: Lidská sídla, jejich typy a rozmístnění ve světě. Academia Praha.
 SHORT, J. R. 1994: Lidská sídla. Velká geografická encyklopedie světa. Nakladatelský dům OP Praha

Course language:

Slovak

Course assessment

Total number of assessed students: 656

A	B	C	D	E	FX
8.84	14.79	22.26	24.09	26.68	3.35

Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Loránt Pregi, Mgr. Marián Kulla, PhD.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KGER/OJPV1/07		Course name: Specialised German Language - Natural Sciences 1			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 131					
A	B	C	D	E	FX
20.61	22.9	25.19	22.14	8.4	0.76
Provides:					
Date of last modification: 20.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ OLŠ/15		Course name: School Administration and Legislation			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 132					
A	B	C	D	E	FX
28.03	33.33	26.52	8.33	3.03	0.76
Provides: Mgr. Lucia Diheneščíková, PhD., PaedDr. Renáta Orosová, PhD.					
Date of last modification: 07.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KOP/OPaPDV/14	Course name: Civil Law and Intellectual Property Rights
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 4	
Recommended semester/trimester of the course: 3., 5.	
Course level: I., N	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 49	
abs	n
91.84	8.16
Provides: JUDr. Renáta Bačárová, PhD., LL.M., prof. JUDr. Peter Vojčík, CSc.	
Date of last modification: 08.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJ4/07	Course name: English Language of Natural Science
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Active participation in class and completed homework assignments. Students are allowed to miss 2 classes at the most. Continuous assessment: 2 credit tests (presumably in weeks 6 and 13) and academic presentation in English. In order to be admitted to the final exam, a student has to score at least 65 % as a sum of both credit tests and academic presentation. The exam test results represent 50% of the final grade for the course, continuous assessment results represent the other 50% of the final grade. The final grade for the course will be calculated as follows: A 93-100, B 86-92, C 79-85, D 72-78, E 65-71, FX 64 and less.	
Learning outcomes: Enhancement of students' language skills (speaking, writing, reading and listening comprehension) in English for specific purposes and development of students' language competence (familiarization with selected phonological, lexical and syntactic phenomena), improvement of students' pragmatic competence (familiarization with selected language functions) and improvement of presentation skills at B2 level (CEFR) with focus on terminology of English for natural science.	
Brief outline of the course: ANGLICKÝ JAZYK PRE GEOGRAFOV: Veda a výskum. Odbor geografia. Planéta Zem. Naša slnečná sústava. Litosféra, hydrosféra, atmosféra, biosféra. Zem - dynamická planéta. Tektonické platne. Sopečná činnosť. Zemetrasenia. Svetové oceány. Morské prúdy. Tsunami. Veľký koralový útes. Atmosféra - zloženie atmosféry. Kontinenty. Európa - krajiny, národnosti. ANGLICKÝ JAZYK PRE EKOLÓGOV: Veda a výskum. Odbor ekológia. Životné prostredie. Znečistenie a dôsledky.	

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

Recommended literature:

study materials provided by the course instructor

Royds-Irmak, D.E. Beginning Scientific English. Nelson, 1975.
 Velebná, B. English for Chemists. ffweb.ff.upjs.sk/vyuka/
 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.
<http://www.bbc.co.uk/worldservice/learningenglish>

Course language:

Course assessment

Total number of assessed students: 2304

A	B	C	D	E	FX
32.55	26.26	18.06	11.46	9.24	2.43

Provides: PaedDr. Gabriela Bednáriková, Mgr. Gabriel Lukáč, PhD., PhDr. Helena Petruňová, CSc.

Date of last modification: 21.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: CJP/ PFAJAKA/07		Course name: Academic English			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present					
Number of credits: 2					
Recommended semester/trimester of the course:					
Course level: I., II., N					
Prerequisites:					
Conditions for course completion: Active classroom participation, 2 absences tolerated (4x45 min.) tolerated. 2 tests (5th/6th week and 12th/13th week), no retake. Minipresentation on chosen topic. Final evaluation- average assessment of tests and presentation. Grading scale: A 93-100%, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64% and less					
Learning outcomes:					
Brief outline of the course:					
Recommended literature: Seal B.: Academic Encounters, CUP, 2002 T. Armer :Cambridge English for Scientists, CUP 2011 M. McCarthy M., O'Dell F. - Academic Vocabulary in Use, CUP 2008 Zemach, D.E, Rumisek, L.A: Academic Writing, Macmillan 2005 Olsen, A. : Active Vocabulary, Pearson, 2013 www.bbclearningenglish.com Cambridge Academic Content Dictionary, CUP, 2009					
Course language: English language, level B2 according to CEFR.					
Course assessment Total number of assessed students: 334					
A	B	C	D	E	FX
29.94	23.65	16.17	11.08	7.49	11.68
Provides: PaedDr. Gabriela Bednáriková					
Date of last modification: 21.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: CJP/ PFAJGA/07		Course name: Communicative Grammar in English			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present					
Number of credits: 2					
Recommended semester/trimester of the course:					
Course level: I., II., N					
Prerequisites:					
Conditions for course completion: Active classroom participation (max. 2x90 min. absences tolerated). 2 test (5th/6th and 12/13th week), no retake. Final evaluation- average assessment of tests. Grading scale: A 93-100%, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64% and less.					
Learning outcomes:					
Brief outline of the course:					
Recommended literature: Misztal M.: Thematic Vocabulary, Fragment, 1998 McCarthy, O'Dell: English Vocabulary in Use, 1994 Alexander L.G.: Longman English Grammar, Longman, 1988 Jones I. - Communicative Grammar Practice, CUP, 1992 Vince M.: Macmillan Grammar in Context, Macmillan, 2008 www.bbclearningenglish.com Gráf T., Peters S.: Time to practise, Polyglot, 2007					
Course language:					
Course assessment Total number of assessed students: 389					
A	B	C	D	E	FX
39.33	18.25	16.97	9.0	6.17	10.28
Provides: PaedDr. Gabriela Bednáriková, Mgr. Barbara Mitříková					
Date of last modification: 21.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/ PFAJKKA/07	Course name: Communicative Competence in English
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: combined, present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II., N	
Prerequisites:	
Conditions for course completion: Active participation in class and completed homework assignments. Students are allowed to miss two classes at the most. 2 credit tests (presumably in weeks 6/7 and 12/13) and short academic presentations in English on selected topics. Final grade will be calculated as follows: A 93-100 %, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64 % and less.	
Learning outcomes: Uplatnenie a aktívne používanie svojich teoretických vedomostí v praktických komunikačných situáciách. Zdokonalenie jazykových vedomostí a zručností študenta, rečovej, pragmatickej a vecnej kompetencie, predovšetkým zlepšujú komunikáciu, schopnosť prijímať a formulovať výpovede, efektívne vyjadrovať svoje myšlienky ako aj orientovať sa v obsahovom pláne výpovede. Precvičovanie rečových intencií kontaktných (napr. pozdravy, oslovenia, pozvanie, oslovenie), informatívnych (napr. získavanie a podávanie informácií, vyjadrenie priestorových a časových vzťahov), regulačných (napr. prosba, poďakovanie, zákaz, pochvala, súhlas, nesúhlas) a hodnotiacich (napr. vyjadrenie vlastného názoru, stanoviska, želania, emócií). Výsledkom budovania praktickej jazykovej kompetencie majú byť vedomosti a zručnosti zodpovedajúce požiadavkám a kritériám dokumentu Spoločný európsky referenčný rámec pre vyučovanie jazykov.	
Brief outline of the course: Rodina, jej formy a problémy Vyjadrovanie pocitov a dojmov Dom, bývanie a budúcnosť Formy a dialekty v anglickom jazyku Život v meste a na vidieku Kolokácie a idiomy, zaužívané slovné spojenia Prázdniny a sviatky vo svete Životné prostredie a ekológia Výnimky zo slovosledu Frázové slovesá a ich použitie Charakteristiky neformálneho diškurzu	

Recommended literature:

www.bbclearningenglish.com

McCarthy M., O'Dell F.: English Vocabulary in Use, Upper-Intermediate. CUP, 1994.

Misztal M.: Thematic Vocabulary. SPN, 1998.

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

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

Jones L.: Communicative Grammar Practice. CUP, 1985.

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

Course language:

English language, B2 level according to CEFR

Course assessment

Total number of assessed students: 211

A	B	C	D	E	FX
36.02	21.33	20.38	10.9	7.58	3.79

Provides: Mgr. Barbara Mitříková

Date of last modification: 21.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PKŽ/15		Course name: Psychology of Everyday Life			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 87					
A	B	C	D	E	FX
29.89	16.09	37.93	11.49	3.45	1.15
Provides: Mgr. Ondrej Kalina, PhD.					
Date of last modification: 16.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

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

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

Course language:

Slovak

Notes:

without notices

Course assessment

Total number of assessed students: 482

A	B	C	D	E	FX
25.73	21.78	23.24	20.12	5.39	3.73

Provides: prof. Ing. Vladimír Sedlák, PhD.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PP/15		Course name: Positive Psychology			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 120					
A	B	C	D	E	FX
97.5	1.67	0.0	0.0	0.83	0.0
Provides: Mgr. Jozef Benka, PhD. et PhD.					
Date of last modification: 16.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ PSTa/10		Course name: Probability and statistics I			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course: 4.					
Course level: I.					
Prerequisites: ÚMV/MAN1c/10 or ÚMV/MAN2c/10 or ÚMV/MAN3c/10					
Conditions for course completion: To obtain at least 50% in two written tests during the semester. Total evaluation based on written tests and oral exam.					
Learning outcomes: To obtain knowledge of the axiomatic theory of probability, random variables and their characteristics, special types of distributions and their applications.					
Brief outline of the course: Probability space, definitions and properties of probability. Conditional probability and independence. Random variables, their distribution function and characteristics. Mean, variance and skewness.. Discrete and absolutely continuous distributions. Quantile and characteristic functions, their properties. Relation between characteristic function and moments. Median and mode. Transformation of random variables. Special types of distributions with applications (binomial, Poisson, geometric, uniform, exponential, normal, chí-square, Student, Fisher). Central limit theorem.					
Recommended literature: 1. Skřivánková V.: Pravdepodobnosť v príkladoch, UPJŠ, Košice, 2006 (in Slovak) 2. DeGroot, M. H., Schervish, M. J.: Probability and Statistics, 4th ed., Pearson, Boston, 2012 3. Evans, M. J., Rosenthal, J. S.: Probability and Statistics: The Science of Uncertainty, 2nd Ed., W. H. Freeman, 2009 4. Riečan et al.: Pravdepodobnosť a matematická štatistika, Alfa, Bratislava, 1984 (in Slovak)					
Course language: Slovak					
Course assessment Total number of assessed students: 315					
A	B	C	D	E	FX
7.62	14.29	16.83	25.71	24.76	10.79
Provides: RNDr. Martina Hančová, PhD., RNDr. Daniel Klein, PhD.					
Date of last modification: 22.02.2017					

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth,
CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ PSTb/10		Course name: Probability and statistics II			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present					
Number of credits: 5					
Recommended semester/trimester of the course:					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: To obtain at least 50% in two written tests during the semester. Total evaluation based on written tests and oral exam.					
Learning outcomes: Student should obtain the knowledge about basic statistical methods and the ability to apply theoretical knowledge in practical problems solving.					
Brief outline of the course: Random vectors, their distributions and characteristics. Joint and marginal distributions. Correlation and regression, properties of correlation coefficient. Random sample, sampling distributions and characteristics. Some important statistics and their distributions. Point estimators and their properties. Maximum likelihood method. Interval estimates, confidence interval construction. Testing of statistical hypothesis, critical region, level of significance. Methods for searching optimal critical regions. Some important parametric and nonparametric tests.					
Recommended literature: 1. Skřivánková V.: Pravdepodobnosť v príkladoch, UPJŠ, Košice, 2006 (in Slovak) 2. Skřivánková V.-Hančová M.: Štatistika v príkladoch, UPJŠ, Košice, 2005 (in Slovak) 3. CASELLA, G., BERGER, R., Statistical Inference, 2nd ed., Duxbury Press, 2002 4. DeGroot, M. H., Schervish, M. J.: Probability and Statistics, 4th ed., Pearson, Boston, 2012 5. Utts, J.M., Heckard, R.F.: Mind od Statistics, 5th ed., Thomson Brooks/Cole, 2014 6. Anděl J.: Základy matematické statistiky, MatfyzPress, Praha, 2011 (in Czech)					
Course language: Slovak					
Course assessment Total number of assessed students: 170					
A	B	C	D	E	FX
20.0	20.59	18.24	24.12	11.18	5.88
Provides: RNDr. Martina Hančová, PhD.					
Date of last modification: 22.02.2017					

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth,
CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/PUDB/15		Course name: Drug Addiction Prevention in University Students			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 172					
A	B	C	D	E	FX
68.6	28.49	2.91	0.0	0.0	0.0
Provides: prof. PhDr. Oľga Orosová, CSc., Mgr. Marta Kulanová, PhD., Mgr. Marcela Štefaňáková, Mgr. Bohuš Hajduch					
Date of last modification: 16.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ PVS/15		Course name: Population growth in Slovakia			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisites:					
Conditions for course completion: The evaluation of student's performance is implemented through a combination of current, random control during the term and the examination part within a particular period of the semester. This type of continuous control includes at least 80% of students' active participation in teaching and successful solutions of given assignments. If a student does not follow and fulfill these two conditions, i. e. compulsory active learning part of the course, together with active participation and in addition will not solve assigned tasks successfully cannot register, assign for the examination (oral/written). If the student receives more than 51% in the written form may proceed to the oral form. If a student does not demonstrate particular knowledge during the oral examination student has to take both forms of the examination once again.					
Learning outcomes: The Student shall acquires deeper knowledge of the population of Slovakia in terms of time and 3-D.					
Brief outline of the course: Development of the population and its spatial differentiation, population Dynamics (natural, migration, the total movement); Reproduction of the population; Migration for work, Foreign and internal migration; The ageing of the population; The specificities of the Roma population in Slovakia; The educational structure of the population; Economic, social, according to the marital status of the population structure; Ethnic and religions structure of the population ; Slovakia in the EU in terms of population processes; The demographic future of Slovakia. Seminars Workshops during the semester are focused on filling the solution of tasks in order to practice or demonstrate the phenomena studied in the different regional units.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 119					
A	B	C	D	E	FX
68.07	2.52	5.88	6.72	13.45	3.36

Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Ladislav Novotný, PhD.
Date of last modification: 23.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/ Pg/15		Course name: Pedagogy			
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 298					
A	B	C	D	E	FX
23.49	19.13	23.83	18.46	13.76	1.34
Provides: Mgr. Katarína Petriková, PhD.					
Date of last modification: 07.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPPaPZ/Ps/15		Course name: Psychology			
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 1., 3., 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 236					
A	B	C	D	E	FX
15.25	11.02	25.42	23.73	20.76	3.81
Provides: prof. PhDr. Oľga Orosová, CSc., PhDr. Anna Janovská, PhD., Mgr. Jozef Benka, PhD. et PhD.					
Date of last modification: 16.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ RUR/15		Course name: Rural Geography			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 6.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 335					
A	B	C	D	E	FX
41.19	33.43	17.91	5.97	0.9	0.6
Provides: prof. RNDr. Peter Spišiak, CSc.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ SBP1/13		Course name: Seminar of bachelor work			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Verification of acquired basic methodologic and formal procedures of the final thesis creation by presentation (70% of rating) and written examination (30%). To obtain A grade, weighted average of the both parts of examination must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain less than 50% from any of both parts of examination.					
Learning outcomes: Mastering basic theoretical, methodological and formal scientific procedures of bachelor thesis creation.					
Brief outline of the course: The content and form of selected parts of thesis writing (abstract, introduction, conclusion, etc.) Ethics and culture of writing diploma thesis, citations and references, types of sources (printed, electronic, etc.). Formal aspects of the thesis. Linguistic adjustment (terminology, stylistics, syntax, grammar, typography). Rules of presentation of the thesis. Presentation of current results and state of diploma thesis.					
Recommended literature: HOVORKA, D., KOMÁREK, K., CHRAPAN, J. 2011: Ako písať a komunikovať. Martin (Vydavateľstvo Osveta), 247 s. KATUŠČÁK, D. 2008: Ako písať záverečné a kvalifikačné práce. Nitra (Enigma), 162 s. ÚTVAR REKTORA UPJŠ (2011): Smernica č. 1/2011, Dostupné na internete: < http://www.upjs.sk/public/media/2438/smernica-1-2011.pdf >, 25 s.					
Course language: Slovak					
Course assessment Total number of assessed students: 337					
A	B	C	D	E	FX
94.66	3.86	0.59	0.0	0.89	0.0
Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Ladislav Novotný, PhD.					

Date of last modification: 23.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ SBP2/13		Course name: Seminar of bachelor work			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Verification of acquired methodological and formal procedures of the creation of bachelor thesis by the presentation of current thesis creation by presentation of own bachelor thesis (100% of rating). To obtain A grade, the rating of student's presentation must reach at least 90%, To obtain B it is 80%, for C it is 70%, for D 60% and for E 50%. Credits shall not be granted to a student who obtain rating less than 50%.					
Learning outcomes: Acquired skills to apply theoretical, methodological and formal scientific procedures of diploma thesis creation.					
Brief outline of the course: The seminary is focused to the topics of individual bachelor thesis. Students present current state of their thesis, its content and its particular parts. Each bachelor thesis is discussed at scientific level.					
Recommended literature: HOVORKA, D., KOMÁREK, K., CHRAPAN, J. 2011: Ako písať a komunikovať. Martin (Vydavateľstvo Osveta), 247 s. KATUŠČÁK, D. 2008: Ako písať záverečné a kvalifikačné práce. Nitra (Enigma), 162 s. ÚTVAR REKTORA UPJŠ (2011): Smernica č. 1/2011, Dostupné na internete: < http://www.upjs.sk/public/media/2438/smernica-1-2011.pdf >, 25 s.					
Course language: Slovak					
Course assessment Total number of assessed students: 302					
A	B	C	D	E	FX
75.17	18.54	4.64	0.66	0.33	0.66
Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Ladislav Novotný, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ SHM/10		Course name: Seminar on history of mathematics			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 6.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion: Homework, presentation on the chosen topic during the seminar. More than 91 points - evaluation of A. 81-90 points - evaluation of B. 71-80 points - rating C. 61-70 points - evaluation of D. 51-60 points - evaluation of E. Less than 50 points - FX evaluation.					
Learning outcomes: Students get an overview of the history of the development of certain mathematical disciplines and selected terms and about parallel between phylogenesis and ontogenesis of mathematical thinking.					
Brief outline of the course: Mathematics in Early Civilizations. Greek Mathematics. Mathematics in the Near and Far East (Arabia, China, India). Medieval European Mathematics. The Renaissance of Mathematics. The Beginning of Modern Mathematics.					
Recommended literature: Burton, D. M.: The History of Mathematics: An Introduction. McGraw–Hill, 2007. Devlin, K.: Jazyk matematiky. Dokořán, 2002 (in czech) Kolman, A.: Dejiny matematiky ve starověku. Academia, Praha, 1968 (in slovak) Juškevič, A. P.: Dejiny matematiky ve středověku. Academia, Praha 1977 (in slovak) Znám,Š. a kol.: Pohľad do dejín matematiky. Alfa, Bratislava, 1986 (in slovak) Konforovič, A.G.: Významné matematické úlohy, SPN Praha, 1989 (in slovak)					
Course language: Slovak					
Course assessment Total number of assessed students: 138					
A	B	C	D	E	FX
79.71	7.25	7.25	2.9	2.9	0.0

Provides: RNDr. Ingrid Semanišínová, PhD.
Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SMK/17	Course name: Seminar to mathematical clubs
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 6.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Individual problem solving during seminars and homework. More than 91 points - evaluation of A. 81-90 points - evaluation of B. 71-80 points - rating C. 61-70 points - evaluation of D. 51-60 points - evaluation of E. Less than 50 points - FX evaluation.	
Learning outcomes: Students become familiar with solving problems from mathematical olympiads and mathematical competitions. They acquire theoretical basics necessary to lead mathematical group of talented children.	
Brief outline of the course: Number theory. Equations, inequations, inequalities. Word problems. Planimetry. Stereometry. Combinatorics. Pigeonhole principle. Combinatorial geometry. Probability. Math games. Interesting problems.	
Recommended literature: Brožúry z edície Škola mladých matematikov. (in slovak) Sériá brožúr: XY. ročník matematickej olympiády. (in slovak) Ziegler, G.M.: Matematika Vám to spočítá, Universum, Praha, 2011. (in czech) Zhouf, J. a kol.: Matematické příběhy z korespondenčních seminářů, Prometheus, Praha, 2006. (in czech)	
Course language: Slovak	
Course assessment Total number of assessed students: 77	

A	B	C	D	E	FX
57.14	16.88	11.69	11.69	2.6	0.0
Provides: RNDr. Ingrid Semanišínová, PhD.					
Date of last modification: 17.03.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPO/ SPKVV/15		Course name: Social and Political Context of Education			
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 11					
A	B	C	D	E	FX
9.09	0.0	45.45	36.36	9.09	0.0
Provides: Mgr. Alexander Onufrák, PhD.					
Date of last modification: 17.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/SVG/04		Course name: Students scientific conference of geography			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 6.					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course: After choosing a topic suggested by supervisors implying a geographical problem, the students will work on the topic, write a thesis and defense it before the committee.					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 153					
A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Zdenko Hochmuth, CSc., prof. RNDr. Peter Spišiak, CSc., RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Marián Kulla, PhD., Ing. Katarína Bónová, PhD., RNDr. Stela Csachová, PhD.					
Date of last modification: 23.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ SVK/10		Course name: Students scientific conference			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course:					
Course level: I., II.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes: Individual scientific work of students. Publishing of obtained results in a written form and as a public presentation.					
Brief outline of the course:					
Recommended literature: With respect to the research problematics (article in journals, books).					
Course language: Slovak or English					
Course assessment Total number of assessed students: 79					
A	B	C	D	E	FX
98.73	1.27	0.0	0.0	0.0	0.0
Provides:					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ TCS/10		Course name: Number theory			
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚMV/ATC/10					
Conditions for course completion: According to tests and exam.					
Learning outcomes: To obtain knowledge on quadratic congruences.					
Brief outline of the course: Chinese remainder theorem, Euler function, quadratic congruences, Pythagorean equation.					
Recommended literature: M. B. Nathanson: Elementary Methods in Number Theory. Springer, 2000. H. E. Rose: A Course in Number Theory. Clarendon Press, Oxford, 1994.					
Course language: Slovak					
Course assessment Total number of assessed students: 547					
A	B	C	D	E	FX
27.06	27.06	29.62	11.33	2.56	2.38
Provides: doc. RNDr. Matúš Harminec, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/TPM/13	Course name: Topographic field mapping
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 3d Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 28	
abs	n
100.0	0.0
Provides: prof. Ing. Vladimír Sedlák, PhD., doc. RNDr. Ján Kaňuk, PhD.	
Date of last modification: 23.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KPE/TVE/08		Course name: Theory of Education			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 4., 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 318					
A	B	C	D	E	FX
25.16	35.85	26.1	7.55	2.2	3.14
Provides: Mgr. Katarína Petriková, PhD., PaedDr. Renáta Orosová, PhD.					
Date of last modification: 07.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚTVŠ/ TVa/11		Course name: Sports Activities I.					
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present							
Number of credits: 2							
Recommended semester/trimester of the course: 1.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 10457							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.25	0.0	0.0	0.0	0.0	0.02	7.81	3.92
Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚTVŠ/ TVb/11		Course name: Sports Activities II.					
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present							
Number of credits: 2							
Recommended semester/trimester of the course: 2.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 9779							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.09	0.61	0.02	0.0	0.0	0.02	10.36	3.9
Provides: Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚTVŠ/ TVc/11		Course name: Sports Activities III.					
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present							
Number of credits: 2							
Recommended semester/trimester of the course: 3.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 6188							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
89.66	0.03	0.0	0.0	0.0	0.0	4.36	5.95
Provides: PaedDr. Jana Potočnicková, PhD., Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚTVŠ/ TVd/11		Course name: Sports Activities IV.					
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present							
Number of credits: 2							
Recommended semester/trimester of the course: 4.							
Course level: I., I.II., II.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Course assessment Total number of assessed students: 4644							
abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.66	0.32	0.04	0.0	0.0	0.0	6.61	7.36
Provides: Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočnicková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.							
Date of last modification: 23.02.2017							
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ UAD/10		Course name: Introduction to data analysis			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Test and individual project work. Oral presentation of the individual project work.					
Learning outcomes: To know the basic purpose of statistical data analysis, its methods and statistical thinking and understand its importance for science and practical life. To understand elementary statistical concepts. To gain experience in handling real data using spreadsheet Excel and statistical software R.					
Brief outline of the course: 1. Introduction (the basic philosophy and aim of statistical data analysis, descriptive and inductive statistics) 2. Collecting Data (types of data, random sample, randomized experiment) 3. Handling Data (visualization, summarizing – measures of center, measures of variability, relationships in data – introduction to regression and correlation) 4. Statistical inference (elementary view into estimation and testing hypothesis)					
Recommended literature: 1. Anděl, J.: Statistické metody, Matfyzpress, Praha, 1998 (in Czech) 2. Rossman, A.J. et al.: Workshop Statistics: Discovery with Data and Fathom, 3rd ed. Wiley, 2009 3. Utts, J.M.: Seeing Through Statistics, 4th ed., Thomson Brooks/Cole, Belmont, 2014 4. Utts, J.M., Heckard R.F.: Mind on Statistics, 5th ed. Thomson Brooks/Cole, Belmont, 2014 5. Zvára, K., Štěpán, J.: Pravděpodobnost a matematická statistika, Matfyzpress, Praha, 2001 (in Czech)					
Course language: Slovak					
Course assessment Total number of assessed students: 252					
A	B	C	D	E	FX
28.57	26.59	31.75	11.9	0.79	0.4

Provides: doc. RNDr. Ivan Žežula, CSc., RNDr. Martina Hančová, PhD.
Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ UDM/10		Course name: Introduction to mathematics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 2 Per study period: 14 / 28 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 1.					
Course level: I.					
Prerequisites:					
Conditions for course completion: Two tests during the semester.					
Learning outcomes: Repetition of problematic sections of the secondary mathematics by interesting tasks.					
Brief outline of the course: Simplification of algebraic expressions. Real number, absolute value of real numbers; equations and inequalities. Irrational equations and inequalities. Concept of function. Linear and quadratic function; equations and inequalities. Exponential and logarithmic function; equations and inequalities. Goniometric functions; equations and inequalities. Complex numbers.					
Recommended literature: 1. V. Medek - L. Mišík - T. Šalát: REPETITÓRIUM STREDOŠKOLSKEJ MATEMATIKY, Alfa Bratislava, 1976 2. S. Richtárová - D. Kyselová: MATEMATIKA (pomôcka pre maturantov a uchádzačov o štúdium na vysokých školách), Enigma Nitra, 1998 3. O. Hudec – Z. Kimáková – E. Švidroňová: PRÍKLADY Z MATEMATIKY (pre uchádzačov o štúdium na TU v Košiciach), EF TU Košice, 1999 4. F. Peller – V. Šáner – J. Eliáš – Ľ. Pinda: MATEMATIKA – Podklady na prijímacie testy pre uchádzačov o štúdium, Ekonóm Bratislava, 2000/2001 5. F. Vesajda – F. Talafous: ZBIERKA ÚLOH Z MATEMATIKY pre stredné všeobecnovzdelávacie školy a gymnáziá, SPN Bratislava, 1973 6. J. Lukášová – O. Odvárko – B. Riečan – J. Šedivý – J. Vyšín: ÚLOHY Z MATEMATIKY pre 4. ročník gymnázia, SPN Bratislava, 1976					
Course language: Slovak					
Course assessment Total number of assessed students: 426					
A	B	C	D	E	FX
23.24	14.32	16.67	15.96	17.14	12.68

Provides: doc. RNDr. Matúš Harminc, CSc., RNDr. Timea Gábová, Mgr. Zuzana Gönciová
Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ UGE/15	Course name: Introduction to Geography
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present	
Number of credits: 3	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion: The evaluation is based on combination of continuous evaluation (30%) and a final written examination (70%). The credits will not be awarded if evaluation is less then the E grade from both parts of evaluation. The E grade will not be awarded for the final written examination if student is successful less than 50%.	
Learning outcomes: Students profit a basic orientation in the position and structure of the department, current development trends and literature. Students will create a comprehensive picture of discovering Earth and the gradual development of geography from the earliest times to the present in the context of the most important personalities and milestones of development. Students profit a basic information about the personality of Geography and applications of geography into practice.	
Brief outline of the course: Home geographic discipline is to provide students a basic orientation – object Geography, subject Geography, Landscape sphere of the Earth, System of geographic sciences (Haggett model, Demko model, model of Mičian, Lauko model), application geographic knowledge into practice, development of geographic thought (Period before Antik - oldest maps, market, strategic importance of geographic information, Ancient period - Greek geography, cosmological ideas - Roman geography, new cartographic methods, Mediaeval period - Arab geography, market, belief, cartography, compass, Period of large geographic discoveries - rediscovery of America, Around the World, Australia, Antarctica, Northern sea way), personality Geography (Humboldt, Ritter, Hetner, Bel, Hromádka, Lukniš), Human Geography, Regional Geography (basic theories and their representatives), Hettner School, use geography in practice.	
Recommended literature: MICHAELI, E., IVANOVÁ, M. (2015). Geografická tektológia - metageografia. PU FHPV Prešov. 252 s. PAULOV, J. (2014). Dejiny geografie a jej vedecký status. Geografický časopis, 66, 1, s. 39-47. PAULOV, J. (2012). Základné paradigmy v rozvoji geografie ako vedy: pokus o stručnú identifikáciu. Geografický časopis, 64, 2, 2012, s. 111-120. PAULOV, J. (2012). Čo je "nová ekonomická geografia"? : pokus o stručnú charakteristiku. Geografický časopis, 64, 1, s. 47-54.	

HOFIERKA, J. (2012). Geoinformatika ako interdisciplinárna vedná oblasť a jej vzťah ku geografii. Geografický časopis, 63, s. 345-355.

DEMEK, J. (1987). Úvod do štúdia teoretickej geografie. Bratislava, SPN. 241 s.

MIČIAN, Ľ (2008). Všeobecná geoekológia. UK Bratislava, 87 s.

MIČIAN, Ľ., ZATKALÍK, F. (1986). Náuka o krajine a starostlivosť o životné prostredie. UK Bratislava, s. 137.

RIEDLOVÁ, M., DEMEK, J., PECH, J. (1980). Úvod do studia geografie, dějiny geografie. Praha, SPN, 158 s.

Course language:

Slovak

Course assessment

Total number of assessed students: 862

A	B	C	D	E	FX
10.44	12.06	27.15	26.33	22.62	1.39

Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Katarína Onáčillová

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: Dek. PF UPJŠ/USPV/13	Course name: Introduction to Study of Sciences
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: Per study period: 12s / 3d Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: I.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 1136	
abs	n
91.37	8.63
Provides: doc. RNDr. Gabriel Semanišin, PhD.	
Date of last modification: 13.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ VEM/10		Course name: Selected topics in elementary mathematics			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 1 / 1 Per study period: 14 / 14 Course method: present					
Number of credits: 3					
Recommended semester/trimester of the course: 5.					
Course level: I.					
Prerequisites: ÚMV/MAN2c/10					
Conditions for course completion: exam					
Learning outcomes: Obtain knowledge about the structure of elementary mathematics with respect to advanced mathematics; the development of mathematical skills of prospective teachers.					
Brief outline of the course: Language of Mathematics; syntax and semantics; sets, relations, rational and irrational numbers, equations and inequations in reals; elementary functions					
Recommended literature: W.W. Esty: The Language of Mathematics, Montana State University, 2007. F. Klein: Elementary mathematics from an advanced standpoint, Dower Publications, 1945.					
Course language: Slovak					
Course assessment Total number of assessed students: 178					
A	B	C	D	E	FX
20.22	16.85	19.66	17.98	23.03	2.25
Provides: prof. RNDr. Jozef Doboš, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚMV/ VKA/10		Course name: Selected topics in algebra			
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present					
Number of credits: 4					
Recommended semester/trimester of the course: 6.					
Course level: I.					
Prerequisites:					
Conditions for course completion: According to tests and to the exam.					
Learning outcomes: To obtain basic knowledge on universal algebra; to be able to apply the theory in concrete situations.					
Brief outline of the course: Relations, operations, algebraic structures. Substructures. Congruences, homomorphism theorems. Automorphism groups and endomorphism monoids. Terms, term operations, identities, varieties.					
Recommended literature: B. Jónsson: Topics in Universal Algebra, Springer-Verlag 1972 M. Kolibiar a kol.: Algebra a príbuzné disciplíny, Bratislava 1992					
Course language: Slovak					
Course assessment Total number of assessed students: 95					
A	B	C	D	E	FX
5.26	18.95	25.26	26.32	22.11	2.11
Provides: prof. RNDr. Danica Studenovská, CSc.					
Date of last modification: 22.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD. Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: KFaDF/VKFV/07		Course name: Selected Topics in Philosophy of Education (General Introduction)			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present					
Number of credits: 2					
Recommended semester/trimester of the course: 3., 5.					
Course level: I.					
Prerequisites: KFaDF/DF1/05					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Course assessment Total number of assessed students: 0					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. PhDr. Pavol Tholt, PhD., mim. prof.					
Date of last modification: 24.02.2017					
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ ZBR/14	Course name: Bridge Fundamentals
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course: 5.	
Course level: I.	
Prerequisites:	
Conditions for course completion: Active participation on exercises.	
Learning outcomes: A student gets acquainted with fundamentals of the contract bridge, develops his/her logical thinking and consolidates his/her habits of positive social behaviour.	
Brief outline of the course: Bridge rules. Principles of the bidding system Standard American. Basic techniques of declarer's play. Basic techniques of the defence. Lead conventions, signals. Common bidding conventions. Selected advanced techniques of the card play. Partnership cooperation in the contract bridge. Bridge ethics.	
Recommended literature: T. Menyhért: Kurz bridžu 2013, http://new.bridgekosice.sk/kurz-bridzu-2013/ R. Pavlicek: Learn To Play Bridge!, http://www.rpbridge.net/1a00.htm ACBL SAYC System Booklet, http://ebookbrowse.net/acbl-sayc-pdf-d201415187	
Course language: Slovak or English	
Notes: Minimum number of participants is 4.	
Course assessment Total number of assessed students: 17	
abs	n
94.12	5.88
Provides: doc. RNDr. Miroslav Ploščica, CSc., prof. RNDr. Mirko Hornák, CSc.	

Date of last modification: 22.02.2017
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ ÚTVŠ/CM/13	Course name: Seaside Aerobic Exercise
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: Per study period: 36s Course method: present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Course assessment Total number of assessed students: 15	
abs	n
26.67	73.33
Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.	
Date of last modification: 23.02.2017	
Approved: Guaranteedoc. RNDr. Ondrej Hutník, PhD.Guaranteedoc. RNDr. Zdenko Hochmuth, CSc.	