CONTENT

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 ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

Conditions for course completion:
 Active classroom participation, assignments handed in on time, 2 absences tolerated
 1 test (10th week), no retake.
 Presentation on chosen topic
 Final evaluation- average assessment of test (40%), essay (30%) and presentation (30%).
 Grading scale: A 93-100%, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64% and less

Learning outcomes:
 The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English, level B2.

Brief outline of the course:
 Formal and informal English
 Academic English and its specific features
 Key academic verbs and nouns
 Linking words in academic writing, writing a paragraph, word-order, topic sentences
 Word-formation - affixation
 abstract
 Selected aspects of English pronunciation, academic vocabulary
 Selected functional grammar structures - defining, classifying, epressing opinion, cause-effect, paraphrasing

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.					

Notes:					

Course assessment
Total number of assessed students: 400

A	B	C	D	E	FX
34.75	22.0	15.75	9.5	6.25	11.75

Provides: Mgr. Viktória Mária Slovenská

Date of last modification: 19.09.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 7

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
According to the results from the semester and in view of the results of the written and oral final exam..

Learning outcomes:
To acquire the methods of mathematical thinking and cognition. Gain basic knowledge of number theory related to divisibility, master the basic concepts of linear algebra and be able to apply them to specific problems and mathematical problems.

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

Recommended literature:
T. Katriňák a kol.: Algebra a teoretická aritmetika 1, Alfa Bratislava, 1985.
T.S Blyth, E.F. Robertson: Basic linear algebra, Springer Verlag, 2001.
K. Jänich: Linear algebra, Springer Verlag, 1991.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 1369

A	B	C	D	E	FX
11.91	11.83	18.99	18.41	28.12	10.74

Provides: prof. RNDr. Danica Studenovská, CSc., RNDr. Igor Fabrici, Dr. rer. nat., RNDr. Lucia Janičková, PhD., Mgr. Ivana Varga

Date of last modification: 16.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 7

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities: ÚMV/ALGa/10

Conditions for course completion:
 According to tests and to the exam.

Learning outcomes:
 To acquire the methods of mathematical thinking and cognition. To deepen and expand students' knowledge of systems of linear equations, to acquire basic knowledge about vector spaces, linear representations, polynomials and polynomial equations.

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

Notes:

Course assessment
 Total number of assessed students: 221

A	B	C	D	E	FX
22.62	17.19	16.74	14.03	25.34	4.07

Provides: prof. RNDr. Danica Studenovská, CSc., RNDr. Lucia Janičková, PhD.

Date of last modification: 24.11.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities: 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

Notes:

Course assessment
Total number of assessed students: 196

A	B	C	D	E	FX
13.78	20.41	26.02	21.94	14.8	3.06

Provides: doc. RNDr. Miroslav Ploščica, CSc.

Date of last modification: 08.02.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

<p style="text-align: center;">**COURSE INFORMATION LETTER**</p>

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 ECTS credits: 2	
Recommended semester/trimester of the course: 4.	
Course level: I.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
 Total number of assessed students: 318

A	B	C	D	E	FX
69.18	25.16	2.83	0.63	0.31	1.89

Provides: Mgr. Katarína Petríková, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚMV/ APM/19	**Course name:** Applications 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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:
 Presentation on the chosen topic during the seminar.

Learning outcomes:
 Students get an overview of applications of mathematics and its tools in various areas of human activity.

Brief outline of the course:
 1. Applications of graphs in analysis of complex networks, their central actors and their community structure.
 2. Statistical methods used in shape recognition (geometric morphometrics, principal component analysis, linear regression) with application in the analysis of dinosaur skulls and other examples of the use of shape recognition in practice.

Recommended literature:
 1. E. A. Robinson, D. H. Ullmann: A mathematical look at politics, CRC Press, 2010.
 2. U. Brandes, T. Erlebach: Network Analysis: Methodological Foundations (Lecture Notes in Computer Science, 3418), 2005.
 3. Karchynskaya, V., Kopčáková, J., Klein, D., Gába, A., Madarasová-Gecková, A., van Dijk, J. P., de Winter, A. F. a Reijneveld, S. A. (2020). Is BMI a Valid Indicator of Overweight and Obesity for Adolescents? Int. J. Environ. Res. Public Health, 17, 4815.

Course language:
 Slovak

Notes:

Course assessment
 Total number of assessed students: 19

A	B	C	D	E	FX
78.95	21.05	0.0	0.0	0.0	0.0

Provides: RNDr. Andrej Gajdoš, PhD., doc. Mgr. Jozef Kiseľák, PhD., doc. RNDr. Daniel Klein, PhD., prof. RNDr. Tomáš Madaras, PhD., prof. RNDr. Katarína Cechlárová, DrSc.

Date of last modification: 25.08.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course:

Course level: I., N

Prerequisities:

Conditions for course completion:
 Oral examination.

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

Brief outline of the course:
1: Chomsky hierarchy of grammars: alphabet, symbol (letter, character), transitive closure, word (string), empty word (empty string), length of a string, concatenation, language, grammar, nonterminal symbol, terminal symbol, initial nonterminal (initial symbol), grammar rule, derivation step, language generated by a grammar, Chomsky hierarchy of grammars - phrase-structure, context sensitive, context free, regular
2: Deterministic finite state automata: finite state automaton, state, input symbol, output symbol, initial state, transition function, output function, examples of automata and their graphic representation, generalized transition and output functions and their basic properties
3: Reduction of automata I: equivalent automata, minimal (optimal) automaton, reachable state, properties of reachable states, elimination of unreachable states
4: Reduction of automata II: equivalent states, k-equivalent states, properties of equivalence and k-equivalence, relation between k-equivalence and (k+1)-equivalence, partitioning the state set into equivalence classes, elimination of equivalent states
5: Reduction of automata III: proof of correctness, unambiguity, and optimality of reduced automaton, testing equivalence of two automata
6: Deterministic finite state acceptors: basic definitions, language recognized by a finite state acceptor, common properties of acceptors and automata with an output, minimizing a finite state acceptor
7: Operations with regular languages: complement, intersection, union, difference, symmetric difference, testing of emptiness, inclusion, equality, and disjointness for regular languages
8: Nondeterministic finite state acceptors: definition, transition function, language recognized by a nondeterministic acceptor, elimination of nondeterminism
9: epsilon-acceptors: definition, properties, elimination of epsilon-transitions

10: Regular grammars: regular grammar, extended regular grammar, transformation of acceptor to a regular grammar, transformation of extended regular grammar to an epsilon-acceptor

11: Regular expressions I: basic properties, transformation of regular expression to an epsilon-acceptor

12: Regular expressions II: regular equations, valid algebraic manipulations with regular expressions, solving an equation with a single unknown variable, solving a system of regular equations, transformation of acceptor to a regular expression

13: Another constructions: review of transformations among various representations, an example of a direct transformation of a grammar to a regular expression, closure of the class of regular languages under another language operations – concatenation and Kleene star, mirror image

14: Another operations: homomorphism and inverse homomorphism, a context-free language that is not regular

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:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 895

A	B	C	D	E	FX
26.59	18.21	23.46	17.09	9.83	4.8

Provides: prof. RNDr. Viliam Geffert, DrSc., RNDr. Dominika Pališínová, RNDr. Juraj Šebej, PhD.

Date of last modification: 23.11.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment Total number of assessed students: 115

abs	n
97.39	2.61

Provides: ;Ing. Ján Bóna

Date of last modification: 03.05.2015

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SPB1/21	**Course name:** Bachelor Thesis Project Seminar 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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
0.0	33.33	66.67	0.0	0.0	0.0

Provides: prof. Mgr. Jaroslav Hofierka, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ SPB2/21	**Course name:** Bachelor Thesis Project Seminar 2

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: prof. Mgr. Jaroslav Hofierka, PhD., doc. Mgr. Ladislav Novotný, PhD., Mgr. Katarína Onačillová, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course:

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 185

A	B	C	D	E	FX
37.3	28.65	16.76	8.11	7.57	1.62

Provides:

Date of last modification: 07.12.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

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

Notes:

Course assessment   Total number of assessed students: 141

abs	n
100.0	0.0

Provides: doc. RNDr. Dušan Šveda, CSc.

Date of last modification: 03.05.2015

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course:

Course level: I.

Prerequisities:

Conditions for course completion:
The bachelor thesis is the result of the student's own work. It must not show elements of academic fraud and must meet the criteria of good research practice defined in the Rector's Decision no. 21/2021, which lays down the rules for assessing plagiarism at Pavol Jozef Šafárik University in Košice and its components. Fulfillment of the criteria is verified mainly in the supervision process and in the process of thesis defense. Failure to do so is reason for disciplinary action.

Learning outcomes:
Evaluation of student's competences with respect to the profile of the graduate.The bachelor's thesis demonstrates mastery of the basics of theory and professional terminology of the field of study, acquisition of knowledge, skills and competencies in accordance with the declared profile of the graduate of the study program, as well as the ability to apply them creatively in solving selected field problems. The bachelor thesis may have elements of compilation. The student demonstrates the ability of independent professional work in terms of content, formal and ethical. Further details on the bachelor thesis are determined by Directive no. 1/2011 on the basic requirements of final theses and the Study Regulations of UPJŠ in Košice.

Brief outline of the course:
 1. Elaboration of the bachelor thesis in accordance with the instructions of the supervisor.
 2. Presentation of the results of the bachelor's thesis before the examination commission.
 3. Answering questions related to the topic of the bachelor thesis within the discussion.

Recommended literature:
The recommended literature is determined individually in accordance with the topic of the bachelor's thesis.

Course language:
Slovak

Notes:

Course assessment					
Total number of assessed students: 178					
A	B	C	D	E	FX
68.54	17.98	6.74	3.93	2.25	0.56

Provides:

Date of last modification: 19.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ KAR/05	**Course name:** Basics 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 ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 226

A	B	C	D	E	FX
77.88	15.04	5.31	0.0	1.77	0.0

Provides: RNDr. Alena Gessert, PhD.

Date of last modification: 27.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ ZKAR/21	**Course name:** Basics of Karstology and Speleology

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 ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 11

A	B	C	D	E	FX
45.45	18.18	18.18	18.18	0.0	0.0

Provides: RNDr. Alena Gessert, PhD., doc. Ing. Katarína Bónová, PhD.

Date of last modification: 20.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚBEV/ BDD/05	**Course name:** Biology of Children and Adolescents

Course type, scope and the method:
 Course type: Lecture / Practice
 Recommended course-load (hours):
 Per week: 2 / 0 **Per study period:** 28 / 0
 Course method: present

Number of ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:
 Written test

Learning outcomes:
 Acquisition of basic morphological and physiological knowledge about individual organs and systems of the human body with a focus on the specifics of childhood and adolescence. Familiarity with developmental and growth characteristics and with the most common diseases in these stages of ontogenesis.

Brief outline of the course:
 Human ontogenesis. Postnatal development. Age specific features of skeletal and muscalar, circulatory, respiratory, gastrointestinal and urinary systems. Reproductive system. Endocrine system. Nervous system. Age specifics of selected diseases and drug dependence arise. Human population and environment.

Recommended literature:
 Drobný I., Drobná M.: Biológia dieťaťa pre špeciálnych pedagógov I. a II. Bratislava, PdF UK, 2000
 Lipková V.: Somatický a fyziologický vývoj dieťaťa. Osveta Bratislava, 1980
 Malá H., Klementa J.: Biológia detí a dorastu. Bratislava, SPN, 1989

Course language:

Notes:

Course assessment
 Total number of assessed students: 1717

A	B	C	D	E	FX
31.74	23.76	17.94	16.83	9.2	0.52

Provides: doc. RNDr. Monika Kassayová, CSc.

Date of last modification: 20.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

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://ebookbrowsee.net/acbl-sayc-pdf-d201415187

Course language:
 Slovak or English

Notes:
 Minimum number of participants is 4.

Course assessment
 Total number of assessed students: 26

abs	n
96.15	3.85

Provides: doc. RNDr. Miroslav Ploščica, CSc., prof. RNDr. Mirko Horňák, CSc.
Date of last modification: 08.02.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

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 final evaluation of the exercises is determined by the instructor of the subject based on the completion of tasks in the exercises during the semester. 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 and who achieves a raiting of at least minimum 16 % in evaluation in 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 E, i.e. he achieves the raiting of at least 51 %. Credits will not be awarded to a student who does not meet the requirements of the exercise and the exam is rated FX. Rating scale: A (100-91%), B (81-90%,) C (71-80%), D (61-70%), E (51-60%).

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. The student masters the design, use and evaluation of the properties of cartographic representations in various geoinformatics applications.

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. KUSENDOVÁ, 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:
Slovak

Notes:
withot notes

Course assessment
Total number of assessed students: 425

A	B	C	D	E	FX
15.29	21.65	20.94	19.29	18.12	4.71

Provides: doc. RNDr. Ján Kaňuk, PhD., Mgr. Patrícia Gurová, Mgr. Ondrej Tokarčík

Date of last modification: 28.09.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ KRT1/21	**Course name:** Cartography and Geoinformatics 1

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
During the semester, it is necessary to submit the results of the exercises. The acquired knowledge at the exercises will be verified by continuous examinations. The number of work outputs and written examinations will be announced at the beginning of the semester. It is possible to obtain 30% for meeting the evaluation criteria at the exercise (work outputs and written tests). The final evaluation of the exercises is determined by the instructor of the subject on the basis of completing the tasks in the exercises during the semester. The final evaluation of the course is based on a combination of meeting the evaluation conditions from the exercises and the final exam. A student who has met the conditions for passing the course at the seminars can apply for the final exam. The final evaluation is a weighted average of the evaluation from the exercises (30%) and the final exam (70%). Credits will be awarded only to a student who achieves the final grade at least at the level of grade E. Credits will not be awarded to a student who does not meet the requirements of the exercises and the final exam is evaluated by FX. Rating scale: A (100-91%), B (81-90%,) C (71-80%), D (61-70%), E (51-60%).

Learning outcomes:
Knowledge: The student will gain theoretical knowledge in the field of cartography and geoinformatics. The student is able to understand cartographic and geoinformatics terminology, appropriately applies cartographic methods for displaying spatial information using a geographic information system, acquires a theoretical basis for the application of cartographic representations and coordinate systems and defines the composition of maps in GIS. The student acquires knowledge of the mathematical principles of mapping the Earth on a map and understands cartographic distortions, classification of cartographic representations, simple and false representations. The student acquires knowledge from the Slovak state map work (civil, military) and also acquires knowledge in cartographic expression methods (cartogram, cartodiagram) and the basics of cartometry.
Skills: The student will learn to acquire and work with the basics of the ArcGIS program, its control, purpose and structure, the student acquires basic orientations and work in the ArcMap program, and work in the basic tools of the "Standard" and "Tools" packages, "Table of contents" window , controls the layout and properties of the "Select features" and "Data - Export Data" tools. The student understands cartographic representations in ArcGIS. The student acquires skills in working with paper maps, scale and measurements on maps, can orient in the field using a map, compass

and can determine the azimuth. The student has skills in creating a point layer, has skills in the principles of expressing point phenomena in ArcGIS, the creation of a line layer as well as in the principles of expressing line phenomena in ArcGIS, isolines. Merge lines, Split lines. He also has skills in creating a surface layer, in the principles of expressing surface phenomena in ArcGIS, Polygon, Auto Complete Polygon, Cut Polygon Tools, Merge polygons. Controls the creation of map output - Layout view, page settings, map export and output parameters settings. The student has skills in the composition of the map - setting the compositional elements of the map and in creating the map output.

Competences: The student is able to work with a high degree of independence with 3D geodata, their processing and analysis, has all the prerequisites for independent creation of digital map output with available software support within GIS. The student is fully competent in the composition of the map - setting its compositional elements. When creating a map output, the student is able to independently or in cooperation in the relevant work team to communicate and collaborate with other experts, formulate opinions and recommendations in the creation and use of GIS in cartography.

Brief outline of the course:

Lectures: Cartography, basic concepts and position in the geosciences system. History and development of cartography. Geoinformatization cartography, digital cartography. Cartography and geoinformatics and their correlation. Geoinformatics, basic terms and definitions of GIS; online maps. Digital representation of objects and phenomena in GIS, vector and raster format. Principles of methodologies of cartographic modeling of geographical information in GIS. Design, use and evaluation of cartographic imaging properties in geoinformatics applications. Map - definition, map criteria, basic properties and elements of the map, categorization of maps, map scale. Principles of mapping the Earth, geoid, reference and display areas, global and local coordinate systems, the Earth and geographical lines and their importance for cartography and geoinformatics. Cartographic distortions, classification of cartographic representations, simple (azimuthal, conical, cylindrical) and false representations. Cartographic representations used in the Slovak state map work. Slovak state map work (civil, military), ZB-GIS, samples. Workflow for creating topographic maps, mapping, overview of 3D data collection in the field and used instrumentation. Map creation - basics of map language, cartographic characters, map markers - point, line and area phenomena. Cartographic expression methods - cartogram, cartodiagram, classification and types of cartograms and cartodiagrams. Map composition, map content, map colors, map description, geographical nomenclature, map design. Basics of cartometry - positioning, measuring and determining distances, measuring and determining the size of surfaces, measuring oriented directions and angles, determining altitudes, determining the slope, profile construction, hypsometric curve. Classification of field formations. Thematic maps of various scales, applications, interpretation of maps. Maps on the Internet, map servers, Google Maps / Earth, Openstreetmaps. Office of Geodesy, Cartography and Cathars of the Slovak Republic - Geoportal.

Exercises: Basic introduction to ArcGIS, its purpose and control, program structure, data formats (* .mxd, * .shp), basic terminology - project, data layer - point, line, area, "features" and "graphics". Basic orientation in ArcMap, introduction of basic tools of the "Standard" and "Tools" packages, window "Table of contents", arrangement and properties of layers, tool "Select features" and "Data - Export Data". Defining a coordinate system, cartographic representations in ArcGIS. Introducing the options of the "Layer Properties" dialog box, working with the attribute table, working with files. Basic table editing, preparation and connection of databases (excel / shapefile) using the "Join" function. Working with paper maps, scale and measurement on maps. Orientation in the field using a map, compass, azimuth determination. Georeferencing. Point layer formation; principles of expressing point phenomena in ArcGIS. Linear layer formation; principles of expressing linear phenomena in ArcGIS, isolines. Merge lines, Split lines. Formation; principles of expressing surface

phenomena in ArcGIS, Polygon, Auto Complete Polygon, Cut Polygon Tools, Merge polygons. Cartogram, cartodiagram. Map output creation - Layout view, page settings, Map export and output parameters settings. Map composition - setting the map composition elements and creating map output.

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. KUSENDOVÁ, 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:

Notes:

Course assessment
Total number of assessed students: 84

A	B	C	D	E	FX
13.1	15.48	28.57	26.19	16.67	0.0

Provides: doc. RNDr. Ján Kaňuk, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ KRT2/21	**Course name:** Cartography and Geoinformatics 2

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 40

A	B	C	D	E	FX
50.0	30.0	12.5	5.0	0.0	2.5

Provides: Mgr. Ján Šašak, PhD., Mgr. Daniela Ujlakiová

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

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

Course level: I., N

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 113

abs	n
93.81	6.19

Provides: doc. JUDr. Renáta Bačárová, PhD., LL.M., prof. JUDr. Peter Vojčík, CSc.

Date of last modification: 23.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: CJP/ PFAJKKA/07	**Course name:** Communicative Competence in English

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

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 an oral presentation in English.
 Final evaluation consists of the scores obtained for the 2 tests (50%) and the presentation (50%).
 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:

Brief outline of the course:

Recommended literature:
 www.bbclearningenglish.com
 Štěpánek, Libor a kol. Academic English-Akademická angličtina. Praha: Grada Publishing, a.s., 2011.
 McCarthy M., O'Dell F.: English Vocabulary in Use, Upper-Intermediate. CUP, 1994.
 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.

Course language:
 English language, B2 level according to CEFR

Notes:

Course assessment
 Total number of assessed students: 289

A	B	C	D	E	FX
44.64	20.76	17.65	7.96	6.23	2.77

Provides: Mgr. Barbara Mitríková, Mgr. Viktória Mária Slovenská

Date of last modification: 12.02.2023

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 ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

Conditions for course completion:
Active classroom participation (maximum 2 absences tolerated), homework assignments completed by given deadlines.
Powerpoint presentation of a topic related to the study field.
Final Test - end of semester, no retake
Final assessment = average of test 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:
The development of students´ language skills - reading, writing, listening, speaking, improvement of their communicative linguistic competence. Students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence. Students can efectively use the language for a given purpose, with focus on Academic English and English on level B2.

Brief outline of the course:
Selected aspects of English grammar and pronunciation
Word formation
Contrast of tenses in English
The passive voice
Types of Conditionals
Phrasal verbs and English idioms
Words order and collocations, prepositional phrases

Recommended literature:
Vince M.: Macmillan Grammar in Context, Macmillan, 2008
McCarthy, O'Dell: English Vocabulary in Use, CUP, 1994
www.linguahouse.com
esllibrary.com
bbclearningenglish.com
ted.com/talks

Course language:

English language, level B2 according to CEFR.

Notes:

Course assessment
Total number of assessed students: 432

A	B	C	D	E	FX
39.81	19.91	16.2	8.1	5.79	10.19

Provides: Mgr. Lenka Klimčáková

Date of last modification: 13.09.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:
Active participation in class and completed homework assignments. Students are allowed to miss 2 classes at the most (2x90 min.). 2 control tests during the semester. 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:
The aim of the course is to identify and eliminate the most frequent grammatical errors in oral and written communication, learning language skills of listening comprehension, speaking, reading and writing, increasing students 'language competence (acquisition of selected phonological, lexical and syntactic knowledge), development of students' pragmatic competence (acquisition of the ability to express selected language functions), development of presentation skills, etc.

Brief outline of the course:
The course is aimed at practicing and consolidating knowledge of morphology and syntax of German in order to show the context in grammar as a whole. The course is intended for students who often make grammatical errors in oral as well as written communication. Through the analysis of texts, audio recordings, tests, grammar exercises, monologic and dialogical expressions of students focused on specific grammatical structures, problematic cases are solved individually and in groups. Emphasis is placed on the balanced development of grammatical thinking in the communication process, which ultimately contributes to the development of all four language skills.

Recommended literature:
Dreyer, H. – Schmitt, R.: Lehr- und Übungsbuch der deutschen Grammatik. Hueber Verlag GmbH & Co. Ismaning, 2009.
Krüger, M.: Motive Kursbuch, Lektion 1 – 30. Huebert Verlag GmbH & Co. Ismaning, 2020.
Brill, L.M. – Techmer, M.: Deutsch. Großes Übungsbuch. Wortschatz. Huebert Verlag GmbH & Co. Ismaning, 2011.
Földeak, Hans: Sag's besser!. Grammatik. Arbeitsbuch für Fortgeschrittene. Huebert Verlag GmbH & Co. Ismaning, 2001.
Geiger, S. – Dinsel, S.: Deutsch Übungsbuch Grammatik A2-B2. Huebert Verlag GmbH & Co. Ismaning, 2018.
Dittelová, E. – Zavatčanová, M.: Einführung in das Studium der deutschen Fachsprache. Košice: ES UPJŠ, 2000.

Course language:					
German, Slovak language					

Notes:

Course assessment
Total number of assessed students: 56

A	B	C	D	E	FX
60.71	10.71	8.93	3.57	8.93	7.14

Provides: Mgr. Ulrika Strömplová, PhD.

Date of last modification: 12.07.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:
At the beginning of the semester, students choose a region from provided list. During the semester, they elaborate presentation reflecting formal and content requirements explained by teacher at the beginning of the semester. This part constitute 50% of total total evaluation. Another 10% represents the activity at the seminars. Remaining 40 % of evaluation is represented by written verification of acquired knowledge. Evaluation of all - the presentation, activity and written verification must reach at least 50% to complete the course. To get an A grade, it is necessary to obtain at least 90% of weighted average. 80% to grade B, 70% to C, 60% to D, and at least 50% to grade E.

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

Notes:					
Course assessment Total number of assessed students: 507					
A	B	C	D	E	FX
27.22	35.5	22.68	8.88	5.13	0.59
Provides: doc. Mgr. Ladislav Novotný, PhD.					
Date of last modification: 01.04.2020					
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ KULG/21	**Course name:** Cultural 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 ECTS credits: 4

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 9

A	B	C	D	E	FX
33.33	22.22	33.33	11.11	0.0	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ KUL/12	**Course name:** Cultural 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 ECTS credits: 4

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:
 ANDĚL. J. 1998: Kultúrní geografie. UJEP Ústí nad Labem, 146 s.
 ANDERSON, K. et al. 2003: Handbook of cultural geography. 601 p.
 BARŠA, P. 1999: Politická teorie multikulturalismu, CDK.
 BERGMAN, E. F. 1995: Human Geography. Cultures, Connections and Landscapes. Prentice Hall, Engewood Cliffs.
 BONNEMAISON, J. 2005: Culture and Space. I. B. Tauris.
 DIAMOND, J. 1997: Guns, germs and steel: the fates of human societies. Norton & co., New York.
 DIAMOND, J. 2019: Otrasy – Ako národy riešia svoje krízy. Premedia, 408 s.
 DOSTÁL, P. 1999: Ethnicity, mobilization and territory: an overview of recent experien-ces. Acta UC, Geographica, XXXIV, 1, s. 45-58.
 HEŘMANOVÁ, E., CHROMÝ, P. a kol. 2009: Kulturní regiony a geografie kultury. 1. vyd. Praha: ASPI, a. s., 292-301.
 KRUPA, V., GENZOR, J. 1996: Jazyky sveta v priestore a čase. Veda, SAV Bratislava, 356 s.
 MACDONALD, F., MASON, A. 2009: Kultúra ľudstva. Ottova encyklopédia. Ottovo nakladatelství, s. r. o. Praha, 256 s.
 MURRAY, W, E. 2006: Geographies of Globalization. Routledge Contemporary Human Geography. Routledge Taylor & Francis Group London and New York, 32 s.
 ROGERS, A. 1994: Lidé a kultúry. Nakladatelský dům Praha, 256 s.

Course language:
 Slovak

Notes:

Course assessment					
Total number of assessed students: 577					
A	B	C	D	E	FX
54.07	32.58	10.05	2.95	0.35	0.0

Provides: Mgr. Marián Kulla, PhD., Mgr. Štefan Kolečanský, prof. Mgr. Jaroslav Hofierka, PhD.

Date of last modification: 09.10.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/ DTG/21	**Course name:** Digital technologies 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 ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
Assessment is based on a combination of midterm (30%) and final assessment (70%) at the end of the semester. The overall evaluation is calculated as a weighted average of the final and midterm evaluation. The evaluation scheme applies to the overall evaluation: 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:
Knowledge: The student will gain knowledge in the field of information and communication technologies specific to the study of geography and geoinformatics. The student will learn to search for and sort different types of information. The acquired knowledge will be used in working with professional literature published in scientific databases and selected geospatial databases. Skills: The student will learn to work with selected WebGIS portals publishing geodata and use databases of scientific journals and citation manager. They will learn the basic methods of modifying different types of data in order to prepare them for integration into GIS. They will get acquainted with the license conditions of the used software within the department. Gain advanced knowledge of using Office. Competences: The student will acquire basic competencies in the field of ICT needed for the study of geography. The result is the student's ability to manage the study fluently and smoothly in terms of ICT literacy. The student is able to independently use ICT tools.

Brief outline of the course:
Important and useful information regarding the study, standards and services provided by the university for students (WiFi, information retrieval, websites, citation manager - CitacePro) operating systems, data types, file types, software used. Work with statistical data, DataCube, SO SR, Soil portal, ŠGÚDŠ, Geoenviroportal, Geoportal and similar web applications. Explanation of the essence of vector and raster graphics, graphic formats and their use. Work with spreadsheet and databases (formulas, contingency tables and graphs), advanced work and formatting in MS Word. Using MS PowerPoint to create presentations and posters.

Recommended literature:
KAŇUK, J., 2015. Priestorové analýzy a modelovanie. Vysokoškolské učebné texty. Prírodovedecká fakulta Univerzity Pavla Jozefa Šafárika v Košiciach. 114 s.

ŽITNIAK, J., 2017. Microsoft Office 2016. Podrobná uživatelská příručka. Computer Press. 464 s.

KLATKOVSKÝ, K., 2016. Word 2016 nejen pro školy. Computer Media. 124 s.

KLATKOVSKÝ, K., 2016. Powerpoint 2016 nejen pro školy. Computer Media. 80 s.

LAURENČÍK, M., 2019. Excel 2016 a 2019 - pokročilé nástroje, Grada, 256 s.

Course language:

Notes:

Course assessment
Total number of assessed students: 82

A	B	C	D	E	FX
45.12	34.15	17.07	2.44	1.22	0.0

Provides: doc. RNDr. Ján Kaňuk, PhD., Mgr. Daniela Ujlakiová, Mgr. Ondrej Tokarčík

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion:
 Examination.

Learning outcomes:
 To be familiar with some factual knowledge of combinatorics and graph theory. To understand an 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.
 3. S. Jendroľ, P. Mihók: Diskrétna matematika I, UPJŠ Košice 1992.

Course language:
 Slovak

Notes:

Course assessment					
Total number of assessed students: 365					
A	B	C	D	E	FX
17.26	20.27	22.47	21.37	15.34	3.29

Provides: doc. RNDr. Roman Soták, PhD., RNDr. Alfréd Onderko, RNDr. Zuzana Šárošiová

Date of last modification: 16.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities: ÚMV/DSMa/10 or ÚMV/DSM3a/10

Conditions for course completion:
In the covered areas of graph theory, the ability to formulate definitions and statements, to present proofs of statements, to explain individual steps in proofs and to solve selected problems related to given topics is required.
During the semester (continuous assessment) two tests take place, from which 50% of points can be obtained, and from the oral exam alike 50% can be obtained. Evaluation: A ... at least 90%, B ... at least 80%, C ... at least 70%, D ... at least 60%, E ... at least 50%, FX ... less than 50% .

Learning outcomes:
Acquired knowledge of basic areas of graph theory, overview of used objects and properties, understanding of important statements and methods, knowledge of possible applications and the ability to formulate and solve problems in this area.

Brief outline of the course:
- (week 1) Introduction to graphs (graph relations, graph operations, special graph classes)
- (week 2-3) Connectivity and distance in graphs (connectedness of vertices, eccentricity, incidence matrix)
- (week 4) (Spanning) Trees (trees isomorphism)
- (week 5-6) Connectivity in graphs (vertex and edge k-connectedness)
- (week (7-8) Independence and coverings (independent set, matching, vertex and edge covering)
- (week 9-10) Extremal graph theory (Ramsey numbers, Turán graphs)
- (week 11-13) Graph colorings (vertex coloring, chromatic polynomial, edge coloring)
- (week 14) Directed graphs (strong/weak connectedness, tounaments, acyclic graphs)

Recommended literature:
1. A. Bondy, U.S.R. Murty, Graph theory, Springer, 2008
2. G. Chartrand, L. Lesniak, P. Zhang, Graphs and digraphs, CRC Press, 2011
3. R. Diestel, Graph Theory, Springer, 2017
4. D. West, Introduction to Graph Theory, Pearson, 2001

Course language:
Slovak

Notes:

| Course assessment |||||||
| Total number of assessed students: 209 |||||||
A	B	C	D	E	FX
14.83	12.44	24.4	24.88	18.18	5.26

Provides: RNDr. Igor Fabrici, Dr. rer. nat.

Date of last modification: 16.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course:

Course level: I.

Prerequisities: ÚMV/DSMb/10

Conditions for course completion:
To complete the course, it is necessary to demonstrate the ability to formulate definitions and statements from the lectured material, to understand the relationship between them, to demonstrate the proofs of statements and solve selected problems based on the presented areas of graph theory. The evaluation is given on the basis of semester assessment, activity in exercises and the result of an exam consisting of a final test and an oral part. The semester assessment takes the form of two written tests (focusing on exercises related to the lectured material) during the semester; a maximum of 25 points can be obtained for each of them. A maximum of 50 points can be obtained for the final test and a maximum of 25 points for the oral part of the exam (consisting of two theoretical questions). During the semester, each student can get a maximum of 10 bonus points for the active approach presented at the seminars on the subject.
The summary evaluation is calculated by the formula max {max {a, b} + c, a + b + c / 2} + d + e, where a resp. b is the number of points obtained from the semester tests, c is the number of points from the final test, d is the number of points for the oral part of the exam, and e are points for activity at the seminars. To pass the exam, it is necessary to obtain a total of at least 50 points (otherwise the exam is evaluated by FX), while the rating E is given in the case of points 51-59, D in the case of 60-69, C in the case of 70-79, B in the case of 80-89 and A in the case of more than 90 points.

Learning outcomes:
After completing the course, the student is acquainted (following the prerequisity subject Discrete Mathematics I and II) with other core topics and results of graph theory, which will give the comprehensive insight and knowledge of this area of mathematics.

Brief outline of the course:
Week 1 and 2: Eulerian and hamiltonian graphs.
Week 3 and 4: Measures of connectivity in graphs, Menger theorem and its corollaries.
Week 5: Perfect matchings, Tutte theorem.
Week 6 and 7: Planar graphs and their basic properties, Euler formula and its corollaries.
Week 8: Characterization of planar graphs, theorem of Kuratowski.
Week 9: Structural properties of planar and polyhedral graphs.
Week 10: Chromaticity of planar graphs.
Week 11: Measures of graph nonplanarity I - crossing number and its estimates, crossing lemma.

Week 12: Measures of graph nonplanarity II - the genus of graph, Eulerova theorem for embedded graphs, chromaticity of embedded graphs.
Week 13: Edge colorings, Vizing theorem

Recommended literature:
D.B. West: Introduction to graph theory (2nd edition), Prentice Hall 2001
A. Bondy and U.S.R. Murty: Graph theory, Springer-Verlag 2008
G. Chartrand, L. Lesniak, and P. Zhang, Graphs and digraphs, CRC Press 2011
R. Diestel: Graph Theory (4th edition), Springer-Verlag 2010

Course language:
Slovak or English

Notes:

Course assessment
Total number of assessed students: 81

A	B	C	D	E	FX
14.81	30.86	16.05	24.69	13.58	0.0

Provides: prof. RNDr. Tomáš Madaras, PhD.

Date of last modification: 16.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:
1st of the evaluation: active participation in the training part (30p). 2nd part of the evaluation: active participation in workshops (20p). In total, students can get 50p and the final evaluation is as follows: 50 - 45: A; 44 - 40: B; 39-35: C; 34-30: D; 29 - 25: E 24 and less: FX. Detailed information in the electronic bulletin board of the course in AIS2. The teaching of the subject will be realized by a combined method.

Learning outcomes:
The student understands the principals of research data based prevention of risk behavior, can describe and explain the determinants of risk behavior as well as protective and risk factors for substance use. Student understands and adequately interprets the theory explaining the background of substance and non-substance addictions.
The student is also able to state and classify the types and forms of prevention, strategies and approaches in prevention, can distinguish effective strategies from ineffective ones.
The student is able to adequately interpret their experience with preventive activities in the group and assume their positive effect as well as limitations and threats.

Brief outline of the course:

Recommended literature:
Orosová, O. a kol. (2012). Základy prevencie užívania drog a problematického používania internetu v školskej praxi. Košice: UPJŠ.
Sloboda, Z., & Bukoski, J. (Eds.). (2006). Handbook of Drug Abuse Prevention: Theory, Science, and Practice. New York: Springer.
National and international scientific journals.

Course language:
 slovak

Notes:

Course assessment					
Total number of assessed students: 562					
A	B	C	D	E	FX
76.87	16.9	4.09	1.6	0.18	0.36

Provides: prof. PhDr. Oľga Orosová, CSc., Mgr. Lucia Barbierik, PhD., Mgr. Lenka Abrinková, PhD., Mgr. Frederika Lučanská, PhD., Mgr. Viera Čurová, Mgr. Marcela Majdanová, PhD.

Date of last modification: 24.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ EKG/21	**Course name:** Economic geography

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 ECTS credits: 6

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 41

A	B	C	D	E	FX
4.88	14.63	26.83	31.71	21.95	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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: Practice
 Recommended course-load (hours):
 Per week: 2 Per study period: 28
 Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:
 Conditions for ongoing evaluation:
 1. Creation of a worksheet for student (with custom graphics).
 2. Creation of a multimedia educational presentation (with pictures, animations and sounds).
 3. Creation of an interactive educational quiz (with various types of quiz items).
 4. Creation of an instructional educational video.
 Conditions for the final evaluation:
 1. Creation and presentation of final project on the use of educational software in education.
 Conditions for successful completion of the course:
 Obtaining at least 50% of points for ongoing and final assignments.

Learning outcomes:
 Students will receive, resp. deepen their basic skills in working with:
 a) presentation software, programs for creating and editing images, animations, diagrams, sounds, conceptual maps,
 b) programs for the creation of didactic tests, questionnaires, surveys,
 c) simulation and modeling software,
 d) selected subject-oriented educational programs,
 Students present and discuss their idea of the use of educational software and educational Internet resources and tools in the selected school subject.

Brief outline of the course:
 1. Overview of educational software and educational web resources and tools.
 2. Creating and processing images into teaching aids (word clouds, QR codes, diagrams, concept maps).
 3. Creating raster animations. Creating and processing sounds.
 4. Creation of instructional educational video.
 5. Electronic voting (Polleverywhere, Plickers, Kahoot!) and questionnaire creation (Google Forms).
 6. Creation of didactic tests (Google Forms, HotPotatoes).
 7. Collaborative web applications (mind42, miro, whiteboard, padlet).
 8. Online communication tools (BBB).

9. Complex online learning environments (Moodle).
10. Online educational projects and competitions (eTweening, WebQuest, PALMA junior).
11. Simulations and modelling (WolframAlpha, PhET, Geogebra). Subject-focused educational programmes.
12. Creation of educational software in Scratch environment.

Recommended literature:
SOLOMON, Gwen and Lynne SCHRUM, 2014. Web 2.0 How-to for Educators. Second. International Society for Technology in Education, 314 p. ISBN 978-1564843517.
STOBAUGH, Rebecca, 2019. Fifty Strategies to Boost Cognitive Engagement: Creating a Thinking Culture in the Classroom (50 Teaching Strategies to Support Cognitive Development). Solution Tree Press, 176 p. ISBN 978-1947604773.
LEMOV, Doug, 2015. Teach Like a Champion 2. 0: 62 Techniques That Put Students on the Path to College [online]. 2nd edition. John Wiley & Sons, Incorporated, 509 p. [cited 2021-7-10]. ISBN 9781118898628. Available from: https://ebookcentral.proquest.com/lib/upjs-ebooks/detail.action?docID=1895720
European Schoolnet: Transforming education in Europe [online]. [cited 2021-7-10]. Available from: http://www.eun.org/home
Science On Stage Europe [online]. Science on Stage Europe e.V. [cited 2021-7-10]. Available from: https://www.science-on-stage.eu/

Course language:
Slovak and partly English due to selected programs and information sources

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

Course assessment
Total number of assessed students: 77

A	B	C	D	E	FX
68.83	15.58	9.09	0.0	6.49	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD.

Date of last modification: 01.08.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ PFAJ4/07	Course name: English Language of Natural Science

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion: Active participation in class and completed homework assignments. Students are allowed to miss 2 classes at the most Continuous assessment: 1 credit test taken presumably in weeks 6/7 1 project (quiz on the topic of the student´s field of study) 25% of the continuous assessment 5 LMS quizzes (25% of the continuous assessment) In order to be admitted to the final exam, a student has to score at least 65 % from the continuous assessment 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 and academic purposes and development of students' linguistic competence. Students obtain knowledge of selected phonological, lexical and syntactic aspects of professional English, improve their pragmatic competence - students can effectively use the language for a given purpose, and acquire presentation skills at B2 level (CEFR) with focus on terminology of natural sciences.

Brief outline of the course: 1. Introduction to studying language 2. Selected aspects of scientific language 3. Talking about academic study 4. Discussing science 5. Defining scientific terminology and concepts 6. Expressing cause and effect 7. Describing structures 8. Explaining processes 9. Comparing objects, structures and concepts

10. Talking about problem and solution
11. Referencing authors
12. Giving examples
13. Visual aids and numbers
14. Referencing time and place
Presentation topics related to students´study fields.

Recommended literature:
lms.upjs.sk - e-kurz Odborný anglický jazyk pre prírodné vedy. Redman, S.: English Vocabulary in Use, Pre-intermetdiate, Intermediate. Cambridge University Press, 2003. Armer, T.: Cambridge English for Scientists. CUP, 2011. Wharton J.: Academic Encounters. The Natural World. CUP, 2009. P. Fitzgerald : English for ICT studies. Garnet Publishing, 2011. https://worldservice/learningenglish, https://spectator.sme.sk www.isllibrary.com linguahouse.com

Course language:
English, level B2 (CEFR)

Notes:

Course assessment
Total number of assessed students: 3056

A	B	C	D	E	FX
38.29	26.18	16.46	9.55	7.46	2.06

Provides: Mgr. Lenka Klimčáková, Mgr. Viktória Mária Slovenská

Date of last modification: 05.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ ENG1/21	**Course name:** Environmental Geology

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 ECTS credits: 3

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ MHG1/07	**Course name:** Fieldwork in 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 ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 572

A	B	C	D	E	FX
93.71	2.27	1.57	1.4	0.87	0.17

Provides: RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 31.03.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ HYP/15	**Course name:** Fieldwork in 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 ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 80

A	B	C	D	E	FX
93.75	5.0	0.0	1.25	0.0	0.0

Provides: RNDr. Dušan Barabas, CSc.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚMV/ FRPa/19	**Course name:** Function of real variable

Course type, scope and the method:
 Course type: Lecture / Practice
 Recommended course-load (hours):
 Per week: 2 / 4 **Per study period:** 28 / 56
 Course method: present

Number of ECTS credits: 7

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
Continuous assessment of student's work during the semester (submission of compulsory homework, writing three tests). Final test and oral discussion on the topics of the subject.

Learning outcomes:
The course provides an introductory knowledge on basic tools of differential and integral calculus of real functions of one real variable, and a development of certain calculation skills in the field.

Brief outline of the course:
 1. Basics of mathematical logic and notations (1 week)
 2. Real functions - basic notions, operation, graphs and their transformations (2 weeks)
 3. Continuity of a real-valued function (1 week)
 4. Derivative of a function using the geometric concepts, rules of differentiation (2 weeks)
 5. Basic of differential calculus - relations with monotonicity and convexity, extremas, using in optimisation, geometric and physics tasks (2 weeks)
 6. Primitive function, methods of their finding (3 weeks)
 7. Newton definite integral - methods of its computation, using in geometric and physics tasks (2 weeks)

Recommended literature:
 1. Kulcsár, Š. - Kulcsárová, O.: Zbierka úloh z matematickej analýzy I., UPJŠ, 2002.
 2. Kulcsár, Š. - Kulcsárová, O.: Zbierka úloh z matematickej analýzy II., UPJŠ, 2003.
 3. Hutník, O. - Kulcsár, Š. - Kulcsárová, O. - Mojsej, I.: Zbierka úloh z matematickej analýzy III., UPJŠ, 2011.
 4. Demidovič, B. P.: Sbírka úloh a cvičení z matematické analýzy, Fragment, Praha, 2003.
 5. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.
 6. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.
 7. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.

Course language:
Slovak

Notes:	

Course assessment
Total number of assessed students: 757

A	B	C	D	E	FX
8.98	8.45	17.17	21.53	32.76	11.1

Provides: doc. RNDr. Ondrej Hutník, PhD., RNDr. Lenka Halčinová, PhD., RNDr. Jana Borzová, PhD.

Date of last modification: 16.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GEP2/18	**Course name:** Fundamentals of Geology for Geographers

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

Number of ECTS credits: 6

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

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 overcame metamorphosis, basics of the regional geology of Slovakia, basics of the historical geology and paleontology.

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1159

A	B	C	D	E	FX
7.85	16.91	32.36	26.83	10.44	5.61

Provides: doc. Ing. Katarína Bónová, PhD., Ing. Ján Bóna

Date of last modification: 30.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course:

Course level: I.

Prerequisities:

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 krajinnej 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 krajinnej ekológie. Ekológia (ČSFR), 3,1,Veda, Bratislava, s. 7-12.
MIČIAN, Ľ. 2008: Všeobecná geoekológia. Bratislava: Geo-grafika, 88 s. – Skriptá.

Course language:

Notes:

Course assessment
 Total number of assessed students: 682

A	B	C	D	E	FX
5.43	12.61	20.82	24.05	34.75	2.35

Provides: RNDr. Dušan Barabas, CSc., Mgr. Imrich Sládek, PhD., Mgr. Ján Šašak, PhD.

Date of last modification: 19.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 6

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

Course level: I., II.

Prerequisities:

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 2 written tests in the mid-term and end of the semester and a project report generated according to the assignment and practical skills acquired during the practicals. The student can proceed to the final exam in case he or she acquired at least 50 points of 100 in all elements of the the continual assessment. The final assessment mark is based on the average number points received in the mid-term test, project report, practicals assessment, and final exam. The final exam is a written test comprising 3-4 questions. 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 students gain knowledge on the intermediate levele in the theory of geoinformation science, GIS, and Remote Sensing, GIS data models, methods of data processing and spatial analysis.
They gain practical skills in processing of geographic data, management, analysis, and visualisation of the geographic data in a GIS project.
Students acquire competence in defining a GIS project, suitabla data models, methods of data acquisition, data processing, analysis and visualisation, presentation skills and skills in team work.

Brief outline of the course:
The course is focused on the following topics: geoinformatics as a scientific discipline, components of geographic information system, digital landscape representation and data models, GIS standards for coordinate systems and transformations, collection of geographic data for GIS (GNSS, photogrammetry, multispectral satellite imagery, lidar, radar) , data management in GIS, attribute and spatial demands, layer overlap, map algebra, spatial prediction, quality and uncertainty of geographic data, GIS web solutions, legislative aspects in GIS, GIS applications in practice.
Exercises are focused on working in ArcGIS Pro: basic and advanced vectorization, data organization in the geodatabase, import / export of various data formats to GIS, creation of color compositions from satellite images, mapping, 3D visualization and animation of geographic data, geoprocessing, map algebra, spatial and attribute demands, spatial prediction, analysis of digital

elevation models (DEM). Students learn the topics of the semester project in the middle of the semester and solve the assigned task in the team using the skills and knowledge acquired during the semester.

Recommended literature:

Course language:
Slovak or Czech or English

Notes:

Course assessment
Total number of assessed students: 383

A	B	C	D	E	FX
28.46	26.89	26.89	12.01	5.74	0.0

Provides: doc. Mgr. Michal Gallay, PhD., Mgr. Michaela Nováková

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 1	
Recommended semester/trimester of the course:	
Course level: I.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 177

A	B	C	D	E	FX
14.12	23.73	24.86	16.38	19.77	1.13

Provides:

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: ÚGE/ GEOM1/21	**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 ECTS credits: 2					
Recommended semester/trimester of the course:					
Course level: I.					
Prerequisities:					
Conditions for course completion:					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 18					
A	B	C	D	E	FX
22.22	11.11	5.56	27.78	22.22	11.11
Provides:					
Date of last modification: 27.06.2022					
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.					

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ GNB/21	**Course name:** Geography of Religion

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 ECTS credits: 3

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 10

A	B	C	D	E	FX
10.0	20.0	30.0	30.0	10.0	0.0

Provides: doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ GPOL/21	**Course name:** Geography of agriculture and industry

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 ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 13

A	B	C	D	E	FX
30.77	15.38	23.08	15.38	15.38	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 14.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚGE/ MG/18	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 ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

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 the Slovak and world mning from a geographical point of view.

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:
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 notes					

Course assessment
Total number of assessed students: 9

A	B	C	D	E	FX
77.78	11.11	11.11	0.0	0.0	0.0

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 19.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ MOG/21	**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 ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 5

A	B	C	D	E	FX
60.0	20.0	20.0	0.0	0.0	0.0

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 16.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ OBY2/18	**Course name:** Geography of population and settlements

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

Number of ECTS credits: 6

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

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 obyvatelstva, 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 obyvateľstva. SPN Bratislava, 230.

MLÁDEK, J. a kol. 2006: Atlas obyvateľstva Slovenska. UK Bratislava, 168.

MLÁDEK, J., KUSENDOVÁ, 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 světe. Academia Praha.

SHORT, J. R. 1994: Lidská sídla. Velká geografická encyklopedie světa. Nakladatelský dům OP Praha

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 867

A	B	C	D	E	FX
9.11	14.42	21.68	22.61	28.6	3.58

Provides: RNDr. Janetta Nestorová-Dická, PhD., doc. Mgr. Michal Gallay, PhD.

Date of last modification: 21.02.2018

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GST/21	**Course name:** Geography of services and tourism

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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GCR/12	**Course name:** Geography of the Czech Republic

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 ECTS credits: 4

Recommended semester/trimester of the course: 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:
Introduction, location, basic FG features of the Czech Republic. Geological structure of the Czech Republic, main geological entities according to the newest classification. Geomorphological structure and the relief evolution, geomorphological entities and units. Climate, hydrography of the Czech Republic, underground waters and mineral waters. Soils, phytogeography and zoogeography, present landscape types.
History of settlements in the Czech Republic from the historical perspective. National, linguistic and religious structure. Urban and rural settlements. Administrative division and its historical development. Economiy of the country - natural resouces, agriculture, industry, transport, education and tourism.

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 295

A	B	C	D	E	FX
51.86	31.19	14.24	2.71	0.0	0.0

Provides: Mgr. Marián Kulla, PhD., Mgr. Imrich Sládek, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ GCR1/21	**Course name:** Geography of the Czech Republic

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 ECTS credits: 4

Recommended semester/trimester of the course: 5.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 1

A	B	C	D	E	FX
0.0	0.0	100.0	0.0	0.0	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GAH/21	**Course name:** Geography of the atmosphere and hydrosphere

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 ECTS credits: 6

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 41

A	B	C	D	E	FX
0.0	24.39	31.71	36.59	7.32	0.0

Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., prof. Mgr. Jaroslav Hofierka, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GPED/21	**Course name:** Geography of the pedosphere and biosphere

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 ECTS credits: 6

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 38

A	B	C	D	E	FX
0.0	5.26	15.79	31.58	18.42	28.95

Provides: RNDr. Dušan Barabas, CSc., doc. Mgr. Michal Gallay, PhD.

Date of last modification: 13.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SGI2/21	**Course name:** Geoinformatics 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 ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

abs	n
0.0	0.0

Provides: doc. Mgr. Michal Gallay, PhD., doc. RNDr. Ján Kaňuk, PhD., Mgr. Ján Šašak, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

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.
 COE, A. L. (ed.) et al., 2010: Geological Field techniques. Wiley-Blackwell, UK, 323 pp.

Course language:

Notes:

Course assessment
 Total number of assessed students: 477

A	B	C	D	E	FX
82.18	13.42	2.73	0.0	0.0	1.68

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 26.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ GEX2/21	**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 ECTS credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: I.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
 Total number of assessed students: 51

abs	n
100.0	0.0

Provides: doc. Ing. Katarína Bónová, PhD.
Date of last modification: 27.06.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

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 50% max. number of points

Learning outcomes:
Mastering the basics of the theory of linear and quadratic formations in the Affine and Euclidean space, mastering the methods of solving problems in analytical geometry in relation to the secondary school curriculum.

Brief outline of the course:
 1. Affine n-dimensional space - definition.
 2. Linear coordinate system.
 3. Subspaces, the parametric and non-parametric representation.
 4. The relative position of the two subspaces.
 5. Bundles of lines.
 6. The arrangement of points on the line.
 7. Convex sets. Changing the system of linear coordinates.
 8. Euclidean space - definition of (scalar and outer product).
 9. Euclidean distances and deviations subspaces.
 10. The rate of the size of convex sets. Triangle and trigonometric theorems.
 11.-12. 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 Internete.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 167

A	B	C	D	E	FX
19.16	17.37	22.75	17.96	13.77	8.98

Provides: doc. RNDr. Dušan Šveda, CSc., RNDr. Monika Krišáková

Date of last modification: 19.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GMAP/13	**Course name:** Geomorphological mapping

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I., II.

Prerequisities:

Conditions for course completion:
The evaluation of the subject consists of assesment of one main semestral work - geomorphological map of the area (50 p), 1 partial work (10 p) and report from the field mapping (40 p) , the total amount of points is 100. The student has to aquire minimum of half points from each work. For successful graduation of the subject the student has to aquire 51 points and more.

Learning outcomes:
after the graduation of the subject the student should information applied to the praxis and be able to map area with the main aim of high quality map and the legenda.

Brief outline of the course:
The main of the subject is to understand the topic of the geomorphological mapping, geomorphological map and its importance. It deals with the history of the geomorphological mapping, maps in slovak and foreign literature, about theory and praxis of field works and maps compilation, creating of the geomorphological map legenda for different relief types. With help of graphical softwers we are working with morphometric and morphographic relief characeter, the morphogenetical nad morphodynamical interpretation of the geomorphological map. After the theoretical part of seminars there is practical field mapping in the scale of 1: 10 000 at the and of the semester.

Recommended literature:
DEMEK, J. (edit.), 1972: Manual of detailed geomorphological mapping. Academia, Brno, 344 s.
MINÁR, J., 1995: Niektoré teoreticko-metodologické problémy geomorfológie vo väzbe na tvorbu komplexných geomorfologických máp. Acta Facultatis Rerum Naturalium Universitatis Comenianae, Geographica Nr. 36, Bratislava, 7-125.
SMITH, M., PARON P., GRIFFITHS, J., 2011: Geomorphological mapping – methods and applications. School of Geography, Geology and the Environment, Kingston University, UK. 610 s.
URBÁNEK, J., 1997: Geomorfologická mapa: niektoré problémy geomorfologického mapovania na Slovensku. Geografický časopis, 49, 3-4, 175-186.
ZAŤKO, M. et al. 1986: Obecná geomorfologická mapa a jej legenda. In: Cvičenia z fyzickej geografie. Prírodovedecká fakulta Univerzity Komenského, Bratislava. 43-53.

Course language:					
Notes:					
Course assessment Total number of assessed students: 13					
A	B	C	D	E	FX
84.62	0.0	15.38	0.0	0.0	0.0
Provides: RNDr. Alena Gessert, PhD.					
Date of last modification: 13.02.2023					
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ GMP/21	**Course name:** Geomorphological mapping

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 1

A	B	C	D	E	FX
0.0	0.0	100.0	0.0	0.0	0.0

Provides: RNDr. Alena Gessert, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GEM2/18	**Course name:** Geomorphology

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

Number of ECTS credits: 6

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 1322

A	B	C	D	E	FX
10.59	21.03	21.63	16.94	19.74	10.06

Provides: RNDr. Alena Gessert, PhD., Mgr. Imrich Sládek, PhD.

Date of last modification: 13.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KF/ 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 ECTS credits: 4

Recommended semester/trimester of the course: 6.

Course level: I., II.

Prerequisities:

Conditions for course completion:
The condition for awarding the evaluation will be the active approach of students to fulfilling their study obligations, independent work with selected philosophical texts in the library, active participation and creative work in seminars. In connection with the possibility of interrupting face-to-face teaching, there will be greater demands on the student's independent study and the processing of professional literature, which will be continuously evaluated, using e-mail to communicate with the teacher, at the end of the semester, preparing and handing in the semester's seminar work by the set date, or also passing a knowledge test - about which the students will be informed in advance in sufficient time.

Learning outcomes:
Deepening knowledge about the development of spiritual culture in the European spiritual space and pointing out the most important sources of this development: (1) ancient philosophy and science, (2) Christianity as the second pillar of Europe, (3) the Renaissance and the emergence of modern science (mathematical natural science) as the third pillar of European development. Development of critical thinking skills, active position in professional (ethics of science), public and private life (ethics of responsibility). Transcending narrowly specialized views of the world.

Brief outline of the course:

Recommended literature:
Antológia z diel filozofov. Predsokratovci a Platon. Zost. J. Martinka. Bratislava: Nakladateľstvo Epocha 1970; Antológia z diel filozofov. Od Aristotela po Plotina. Zost. J. Martinka. Bratislava: Nakladateľstvo Pravda 1972. Predsokratovci a Platon. Antológia z diel filozofov. Zost. J. Martinka. Bratislava: Vydavateľstvo Iris 1998. Od Aristotela po Plotina. Antológia z diel filozofov. Zost. J. Martinka. Bratislava: Vydavateľstvo IRIS 2006. Anzenbacher,A.: Úvod do filozofie. Prel. K. Šprunk. Praha: SPN 1990. Barthes, R.: Mytologie. Prel. J. Fulka. Praha: Dokořán 2004. Bělohradský, V.: Společnost nevolnosti. Eseje z pozdější doby. Praha: SLON 2009. Benjamin, W.: Iluminácie. Prel. A. Bžoch; J. Truhlářová. Bratislava: Kalligram 1999. Borges, J. L.: Borges ústne. Prednášky a eseje. Prel. P. Šišmišová. Bratislava: Kalligram 2005. Cassirer, E.: Esej o člověku. Prel. J. Piaček. Bratislava: Nakladateľstvo Pravda 1977. Debord, G.: Společnost spektáklu. Prel. J. Fulka; P. Siostrzonek. Praha: Nakladatelství :intu: 2007. Farkašová, E.: Na rube plátna. Bratislava: Vydavateľstvo Spolku slovenských spisovateľov 2013.

Feyerabend, P.: Věda jako umění. Prel. P. Kurka. Praha: JEŽEK 2004. Freud, S.: Nepokojenost v kultuře. Prel. L. Hošek. Praha: Hynek 1998. Hadot, P.: Co je antická filosofie. Prel. M. Křížová. Praha: Vyšehrad 2017. Hippokratés: Vybrané spisy. Prel. H. Bartoš; J. Černá; J. Daneš; S. Fischerová. Praha: OIKOYMENH 2012. Husserl, E.: Filosofie jako přísná věda. Prel. A. Novák. Praha: Togga 2013. Kuhn, T. S.: Štruktúra vedeckých revolúcií. Prel. J. Viceník. Bratislava: Nakladateľstvo Pravda 1981. Leško,V., Mihina, F. a kol.: Dejiny filozofie. Bratislava. Iris 1993 Leško, V.: Dejiny filozofie I. Od Tálesa po Galileiho. Prešov: v. n. 2004, 2007. Leško, V.: Dejiny filozofie II. Od Bacona po Nietzscheho. Prešov: v. n. 2008. McLuhan, M.: Jak rozumět médiím. Extenze člověka. Prel. M. Calda. Praha: Mladá fronta 2011. Patočka, J.: Duchovní člověk a intelektuál. In: Patočka, J.: Péče o duši III. Praha: OIKOYMENH 2002, s. 355 - 371. Popper, K. R.: Otevřená společnost a její nepřátelé I. Platónovo zaříkávání. Prel. M. Calda; J. Moural. Praha: OIKOYMENH 2011. Sloterdijk, P.: Kritika cynického rozumu. Prel. M. Szabó. Bratislava: Kalligram 2013. Störig,H .J.:Malé dějiny filozofie. Prel. P. Rezek. Praha: Zvon 1991. Wittgenstein, L.: Filozofické skúmania. Prel. F. Novosád. Bratislava: Nakladateľstvo Pravda 1979. Wright von, H. G.: Humanizmus ako životný postoj. Prel. M. Žitný. Kalligram 2001. Žižek, S.: Mor fantázií. Prel. M. Gálisová; V. Gális. Bratislava: Kalligram 1998.

Course language:

Notes:

Course assessment
Total number of assessed students: 746

A	B	C	D	E	FX
60.59	14.21	12.6	8.58	3.35	0.67

Provides: doc. PhDr. Peter Nezník, CSc.

Date of last modification: 11.07.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ EXH/21	**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 ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 6

A	B	C	D	E	FX
66.67	16.67	16.67	0.0	0.0	0.0

Provides: Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 790

A	B	C	D	E	FX
78.99	11.14	7.59	0.89	0.76	0.63

Provides: RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD., RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 03.05.2015

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 543

A	B	C	D	E	FX
4.24	10.5	18.97	34.99	26.7	4.6

Provides: Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Loránt Pregi, PhD., prof. Mgr. Jaroslav Hofierka, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 31.03.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ HGS1/21	**Course name:** Human 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 ECTS credits: 5

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
0.0	0.0	33.33	0.0	66.67	0.0

Provides: RNDr. Janetta Nestorová-Dická, PhD., Mgr. Marián Kulla, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:
 BOROVSKÝ, J. a kol., 2008: Cestovný ruch, trendy a perspektívy. Iura Edition, 280 s.
 GOELDNER, CH.R., BRENT RICHIE, J.R., 2014: Cestovní ruch - principy, příklady, trendy. Biz books, 545 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:

Notes:

Course assessment
 Total number of assessed students: 519

A	B	C	D	E	FX
17.15	22.93	27.55	20.81	10.4	1.16

Provides: Mgr. Marián Kulla, PhD., Mgr. Jozef Bogľarský

Date of last modification: 20.09.2018

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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

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:

Notes:

Course assessment					
Total number of assessed students: 687					
A	B	C	D	E	FX
8.15	20.67	28.97	27.51	12.23	2.47

Provides: Mgr. Marián Kulla, PhD., Mgr. Jozef Bogľarský, Mgr. Patrícia Gurová

Date of last modification: 29.03.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 85

A	B	C	D	E	FX
65.88	25.88	4.71	1.18	2.35	0.0

Provides: PaedDr. Michal Novocký, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:
To master the use of basic algorithmic structures, to gain the ability to write algorithms for the construction of geometric shapes in the environment of turtle geometry. To be able to assess the possibilities of using interactive applications available on the Internet and to design procedures for the application of selected applications in the teaching of mathematics. To learn to use numerical and graphical means of a spreadsheet in data analysis, creating models to solve various mathematical problems.
Evaluation:
Algorithm creation paper - 6 b
Elaboration of dynamic constructions for solving geometric problems - 3 b
Seminar work on the use of interactive applications - 7 b + 3 b
Poll - 1 b
Tasks for creating numerical and graphical models in a spreadsheet - 4 b
Classification scale:
A: 91 % - 100 %,
B: 81 % - 90 %,
C: 71 % - 80 %,
D: 61 % - 70 %,
E: 51 % - 60 %,
FX: 0 % - 50 %.

Learning outcomes:
Knowledge and skills from the basics of working with standard information and communication technologies, which provide a variety of opportunities to support mathematics education. Skills to use basic commands of turtle geometry for generalization and writing algorithms for construction of geometric shapes. To master the basic principles of creating structures in the environment of dynamic geometry. Acquire creative and evaluative skills to plan and prepare a meaningful integration of modern technologies into mathematics education.

Brief outline of the course:
1-5: Use of basic algorithmic constructions in turtle geometry for the construction of geometric shapes,

6th - 7th: Basics of work in the environment of dynamic geometry, creation of dynamic constructions,

8th - 9th: Interactive teaching applications available on the Internet, selected possibilities of using digital technologies in mathematics education.

10. - 12 .: Use of numerical and graphical representations of data and modeling in a spreadsheet environment in solving mathematical problems.

Recommended literature:

Brdička, B.: Role internetu ve vzdělávaní, 2003, http://it.pedf.cuni.cz/~bobr/role/econt.htm.

Lukáč, S. a kol.: IKT vo vyučovaní matematiky, Asociácia projektu Infovek 2002.

Vaníček, J.: Počítačové kognitivní technologie ve výuce geometrie. Pedagogická fakulta Univerzity Karlovy, 2009.

Šťastný, Z.: Matematické a statistické výpočty v Microsoft Excelu, Computer Press 2001.

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 108

A	B	C	D	E	FX
50.93	25.93	15.74	5.56	1.85	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 12.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ ZAE1/18	**Course name:** International Excursion 1

Course type, scope and the method:
  Course type: Practice
  Recommended course-load (hours):
  Per week: Per study period: 10d
  Course method: present

Number of ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 22

A	B	C	D	E	FX
50.0	18.18	18.18	9.09	4.55	0.0

Provides: Mgr. Loránt Pregi, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ ZEX1/21	**Course name:** International Excursion 1

Course type, scope and the method:
  Course type: Practice
  Recommended course-load (hours):
  Per week: Per study period: 10d
  Course method: present

Number of ECTS credits: 4

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 11

abs	n
100.0	0.0

Provides: doc. Mgr. Ladislav Novotný, PhD., Mgr. Loránt Pregi, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ UGIS/15	**Course name:** Introduction to Geographic Information Systems

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

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 understanding of GIS terminology, practical skills in basic geodata processing in GIS software. In particular, the skills involve data edtiting and creation of map layouts.

Brief outline of the course:
- Basic GIS terminology (eg. geodata layer, geodata formats, structure of GIS, graphics map elements, attribute table, structure of relational databases)
- Basic control elements of GIS software (add and configure a data layer and properties, zooming, adjusting color data layer, display and basic work with attribute tables)
- Prepare and connect an external database with the data layer
- Set the legend (selection of cartographic methods of spatial information)
- Creating map layouts and advanced graphics tools for creating map layouts

Recommended literature:
BOLTIŽIAR M. 2008: Geografické informačné systémy pre geografov I. Univerzita Konštantína Filozofa v Nitre, Fakulta Prírodných vied. 120 s.
BOLTIŽIAR, M. VOJTEK M. 2009. Geografické informačné systémy pre geografov II.
Univerzita Konštantína Filozofa v Nitre, Fakulta Prírodných vied. 140 s.
MICHAEL D. KENNEDY. 2013:Introducing Geographic Information Systems with ArcGIS: A Workbook Approach to Learning GIS, 3rd Edition. Wiley. 672 p.
LAW M, COLLINS A. 2013:Getting to Know ArcGIS for Desktop. Edition 3. Esri Press. 768 p.

Course language:

Notes:

Course assessment					
Total number of assessed students: 884					
A	B	C	D	E	FX
13.91	14.03	25.9	22.85	20.48	2.83

Provides: doc. Mgr. Michal Gallay, PhD., doc. RNDr. Ján Kaňuk, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ UGP/18	**Course name:** Introduction to Geography and 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 ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 448

A	B	C	D	E	FX
35.94	27.9	18.08	12.05	5.8	0.22

Provides: prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Štefan Kolečanský

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: Dek. PF UPJŠ/USPV/13	**Course name:** Introduction to Study of Sciences

Course type, scope and the method:
  Course type: Lecture / Practice
  Recommended course-load (hours):
  Per week: Per study period: 12s / 3d
  Course method: present

Number of ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 2012

abs	n
88.37	11.63

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 30.08.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion:
 Test (40p) and individual project work (20p).
 Oral presentation of the individual project work (5p).
 At least 50% must be obtained from each part.
 Final evaluation: ≥90% A; ≥80% B; ≥70% C; ≥60% D; ≥50% E; <50% FX.

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, skewness and kurtosis, empirical rule) - 5 weeks
 4. Relationships in data (introduction to regression and correlation) - 4 weeks
 5. Statistical inference (elementary view into estimation and testing hypothesis) - 2 weeks

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, 6th ed. Thomson Brooks/Cole, Belmont, 2021
 5. Zvára, K., Štěpán, J.: Pravděpodobnost a matematická statistika, Matfyzpress, Praha, 2001 (in Czech)

Course language:
 Slovak

Notes:

Course assessment					
Total number of assessed students: 390					
A	B	C	D	E	FX
37.44	25.13	26.41	10.0	0.51	0.51

Provides: doc. RNDr. Martina Hančová, PhD.

Date of last modification: 13.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
 Two tests during the semester.

Learning outcomes:
 Repetition of problematic sections of the secondary mathematics by interesting tasks. Explanation of basic terms, properties and proof methods used in various areas of mathematics.

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. Exponencial 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

Notes:

Course assessment					
Total number of assessed students: 508					
A	B	C	D	E	FX
23.62	20.67	17.52	15.94	10.83	11.42

Provides: RNDr. Veronika Hubeňáková, PhD., RNDr. Lucia Janičková, PhD., RNDr. Monika Krišáková

Date of last modification: 24.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ UDID/21	**Course name:** Introduction to the didactics of 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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: RNDr. Stela Csachová, PhD., doc. RNDr. Ján Kaňuk, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course:

Course level: I.

Prerequisities: ÚMV/ALGa/10

Conditions for course completion:
Continuous evaluation: a small test during each tutorial, two large tests, a project with real data and commercial software. Bonus points awarded for homeworks (formulation of proofs). A necessary condition for final exam is at least 50% of points from th semester. Final exam: demonstrate the understanding of the theory and ability of argumentation.

Learning outcomes:
Ability to formulate practical tasks in a form of a linear program. Proficiency in solving linear programs by several methods, also using software. Understanding of the underlying theory and ability of exact argumentation.

Brief outline of the course:
Formulation of linear and integer programs. Geometric solution. Simplex method, its correctness an finiteness. Duality and its economic interpretation. Dual and revised simplex method. Sensitivity analysis and parametric programming. Algorithms for integer programming: branch and bound, Gomory cuts. Computational complexity of LP and ILP. Solution of practical problems.

Recommended literature:
lms.upjs.sk - podklady k prednáškam a zadania úloh na cvičenia.
Plesník, Dupačová, Vlach: Lineárne programovanie, Alfa, Bratislava 1990
Ch. Papadimitriou – K. Steiglitz: Combinatorial Optimization: Algorithms and Complexity, 1984
R.J. Vanderbei, Linear Programming:Foundations and Extentions, Springer 2020, electronic version: http://www.princeton.edu/~rvdb/LPbook/

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 152

A	B	C	D	E	FX
21.71	17.11	20.39	20.39	17.11	3.29

Provides: prof. RNDr. Katarína Cechlárová, DrSc., RNDr. Adam Marton
Date of last modification: 17.04.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ LOS/18	**Course name:** Linux and open source GIS

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 64

A	B	C	D	E	FX
62.5	34.38	3.13	0.0	0.0	0.0

Provides: doc. Mgr. Michal Gallay, PhD., prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Michaela Nováková

Date of last modification: 30.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 6

Recommended semester/trimester of the course: 5.

Course level: I., II.

Prerequisities: ÚMV/MANb/19 or ÚMV/FRPb/19 or ÚMV/MAN2b/22

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. Relations and mappings.
  Finite and countable sets. Cardinality of continuum. Elementary cardinal arithmetics.
  Sentential calculus, an axiomatization. Completness 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:
  L. Bukovský: Teória množín, ES UPJŠ, Košice, 1984.
  L. Bukovský: Množiny a všeličo okolo nich, ES UPJŠ, Košice, 2005.
  L. Bukovský, Úvod do matematickej logiky, elektronický učebný text.
  A. Sochor: Klasická matematická logika, Karolinum, Praha, 2001.
  E. Mendelson, Introduction to Mathematical Logic, van Nostrand 1964.

Course language:
  Slovak

Notes:

Course assessment
  Total number of assessed students: 270

A	B	C	D	E	FX
12.59	18.89	19.26	16.3	31.11	1.85

Provides: RNDr. Jaroslav Šupina, PhD., RNDr. Adam Marton

Date of last modification: 19.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:
The final mark is given based on the results of the tests written during the semester ("small" exams every week, two written exams checking the ability of computations) and oral exam, that evaluates the verbal argument about the studied models.

Learning outcomes:
The student understands the basic economic models and is able to use them to explain the real economic phenomena.

Brief outline of the course:
Basic macroekonomic notions: Gross domestic product, inflation, unemployment.. Analysis of godds markets. Financial markets. IS-LM model in closed economy. Open economy. IS-LM model in open economy. Models of labour market. 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

Notes:

Course assessment
Total number of assessed students: 85

A	B	C	D	E	FX
25.88	14.12	21.18	20.0	12.94	5.88

Provides: prof. RNDr. Katarína Cechlárová, DrSc.

Date of last modification: 17.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities: ÚMV/MANb/19

Conditions for course completion:
Two written test during semeter 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 sylabus 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

Notes:

Course assessment						
Total number of assessed students: 213					
A	B	C	D	E	FX
12.21	15.02	13.15	18.78	33.33	7.51

Provides: doc. RNDr. Ondrej Hutník, PhD., Mgr. Zuzana Ontkovičová, PhD.

Date of last modification: 21.11.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 7

Recommended semester/trimester of the course:

Course level: I.

Prerequisities: ÚMV/MAN1c/22 or ÚMV/MAN2c/22

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. Legesgue 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.
 G. S. Nelson, A User-Friendly Introduction to Lebesgue Measure and Integration, American Mathematical Society, 2015

Course language:
 Slovak

Notes:

Course assessment
 Total number of assessed students: 99

A	B	C	D	E	FX
3.03	7.07	15.15	16.16	56.57	2.02

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 14.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities: ÚMV/MANb/19

Conditions for course completion:
Continuous assessment is taken the form of two main tests during the semester. Final evaluation is given by continuous assessment (60%), written and oral part of the exam (40%).

Learning outcomes:
The student understands the basic concepts and their properties, which are defined in the content of the course. He has developed skills to use this theory in solving theoretical and practical problems. The student is able to do connections in solving problem tasks.

Brief outline of the course:
 1. Function of several real variables - basic notions, limits and continuity. (3 weeks)
 2. Differential calculus of functions of several real variables - partial derivative, differentiability, directional derivative, local and global extrema, constrained local extrema. (5 weeks)
 3. Multivariable Riemann integral - definition, calculation methods, applications. (2 weeks)
 4. Metric space - Euclidean space, topological properties of points and sets in metric space, completeness (3 weeks)

Recommended literature:
 1. D. HUGHES-HALLETT et al.: Calculus, Wiley, 1998, ISBN 13 cloth 978-0470-88861-2.
 2. B. S. Thomson, J. B. Bruckner, A. M. Bruckner: Elementary real analysis, Prentice Hall (Pearson), Lexington, 2008.

Course language:
Slovak

Notes:

Course assessment
 Total number of assessed students: 58

A	B	C	D	E	FX
27.59	17.24	24.14	13.79	15.52	1.72

Provides: RNDr. Lenka Halčinová, PhD.

Date of last modification: 26.09.2021

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚMV/ MANb/19	**Course name:** Mathematical analysis of function of real variable

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 ECTS credits: 8

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities: ÚMV/FRPa/19

Conditions for course completion:
Two written tests during semeter 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 strengthen the 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 investigate properties and behavior of functions.

Recommended literature:
1. Mihalíková, B. - Ohriska, J.: Matematická analýza I (elektronický učebný text), UPJŠ Košice, 2012.
2. Mihalíková, B. - Ohriska, J.: Matematická analýza II (skriptum), ES UPJŠ Košice, 2007.
3. Kluvánek, I. - Mišík, L. - Švec, M.: Matematika I, ALFA, Bratislava, 1971.
4. Demidovič, B. P.: Sbírka úloh a cvičení z matematické analýzy, Fragment, Praha, 2003.
5. Brannan, D.: A First Course in Mathematical Analysis, Cambridge University Press, Cambridge 2006.
6. Bruckner, A. M., Bruckner J. B., Thomson, B. S.: Real Analysis, Second Edition, ClassicalRealAnalysis.com, 2008.
7. Zorich, V. A.: Mathematical Analysis I, Springer-Verlag 2002.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 335

A	B	C	D	E	FX
10.45	12.54	16.42	21.79	32.24	6.57

Provides: doc. RNDr. Ondrej Hutník, PhD., RNDr. Lenka Halčinová, PhD., RNDr. Jana Borzová, PhD.

Date of last modification: 17.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:
Deepening of knowledge and skills from the use of standard methods in solving mathematical problems in the thematic areas: Equations and inequalities and their systems, Elementary functions, Sequences, Financial mathematics. Developing the ability to explain different problem-solving strategies.
Assessment is given on the basis of the results of written examinations carried out during the semester (21 points) and active participation in exercises (3 points).
Classification scale:
A: 91 % - 100 %,
B: 81 % - 90 %,
C: 71 % - 80 %,
D: 61 % - 70 %,
E: 51 % - 60 %,
FX: 0 % - 50 %.

Learning outcomes:
The student is able to explain the basic concepts and methods of solving mathematical problems selected from various areas of school mathematics. The student is able to apply the acquired knowledge in finding and using various strategies for solving problems. The student will get acquainted with typical and more demanding tasks in school mathematics and with specific problems and misconceptions that occur in their solution in the teaching of mathematics in primary and secondary school.

Brief outline of the course:
1. - 5. Solving equations, inequalities and systems of equations (equations and inequalities with absolute values, equations with parameters, irrational equations and inequalities, exponential and logarithmic equations and inequalities, trigonometric equations and inequalities).
6. - 9. Concept of function, properties of elementary functions, graphs of functions.
10. - 11. Sequences, arithmetic and geometric sequences.
12. - 13. Tasks of financial mathematics.

Recommended literature:

Kubáček, Z., Černek, P., Žabka J. a kol.: Matematika a svet okolo nás, zbierka úloh. FMFI UK Bratislava, 2008

Kopka, J., Hrozny problémů ve školské matematice, Univerzita J. E. Purkyně, Ústí nad Labem,1999.

Lengyelfalusy, T., Kochol, M., Zábojníková, N.: Metódy riešenia matematických úloh 2. Žilinská univerzita v Žiline, 2009.

Učebnice a zbierky úloh z matematiky ZŠ a SŠ.

| **Course language:** |
| Slovak |

| **Notes:** |

Course assessment
Total number of assessed students: 210

A	B	C	D	E	FX
30.48	22.86	22.86	11.43	11.43	0.95

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 12.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:
 The resulting trial is granted on the basis of continuous assessment (on the results of written checks) and seminar work.

Learning outcomes:
 Mastering the basic types of tasks and their methods of solving problems in primary and secondary school in the field of Planimetry, Stereometry and Goniometry.

Brief outline of the course:
 Basic knowledge of school mathematics, various methods for the task, the role of mathematical competitions for thematic units Planimetry (4 w.), stereometry (3), goniometery (3).

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

Notes:

Course assessment
 Total number of assessed students: 188

A	B	C	D	E	FX
31.91	30.32	25.0	8.51	4.26	0.0

Provides: doc. RNDr. Dušan Šveda, CSc.

Date of last modification: 19.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities: ÚMV/MRUb/15

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity.
3. Homework and written test.
4. Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to a student who scores at least 50% on homework assignments and at least 50% on written test. A grade of A requires at least 90%, a grade of B requires at least 80%, a grade of C requires at least 70%, a grade of D requires at least 60%, and a grade of E requires at least 50%.

Learning outcomes:
Students demonstrate a shift in different methods of problem-solving from combinatorics, probability and statistics. They will be aware of the connections between different methods of solution, and also the connections of these methods of solution with other topics of school mathematics.
While solving problems on written tests, the students will show that they have a conceptual understanding of the concepts of school combinatorics, probability and statistics. They are ready to use several methods of solving problems from these topics, they are able to consider whether a non-standard student's solution is correct or not, and they can explain this solution.

Brief outline of the course:
The content is focuses on different methods of problem-solving in combinatorics, probability and statistics. We are dealing with developing combinatorial, probabilistic and statistical thinking through different methods of problem-solving. The content of the course is based on current research results in this area.
In solving combinatorial problems, students are introduced to the components of the model of combinatorial thinking - the listing of possibilities, the counting process, and combinatorial formulas and methods, and the connections between these components.

When solving probability problems, we emphasize the different approaches to probability - statistical, classical, geometric, and subjective and their connections.

In part aimed at statistics, we focus on descriptive statistics and on the connection between probability and statistics.

Recommended literature:

Hecht, T., Sklenáriková, Z., Metódy riešenia matematických úloh, Bratislava, SPN, 1992. (in slovak)

Krantz, S.G., Techniques of Problem Solving, AMS, 1997.

Larson, L.C., Metódy riešenia matematických problémov, Bratislava, Alfa, 1990. (in slovak)

Učebnice a zbierky úloh pre stredné a základné školy.

Course language:

Slovak

Notes:

Course assessment

Total number of assessed students: 195

A	B	C	D	E	FX
30.77	27.18	24.1	11.28	6.15	0.51

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 07.02.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ MST/19	Course name: Mathematical statistics

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

Number of ECTS credits: 5

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:
 Total evaluation based on two written tests during the semester (2x40p) and the result of the written (30p) and oral part of the exam (30p).
 At least 50% must be obtained from each part.
 Final evaluation: ≥90% A; ≥80% B; ≥70% C; ≥60% D; ≥50% E; <50% FX.

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:
 1. Random vectors (definition, distributions, characteristics, joint and marginal distributions).
 2. Covariance, correlation and regression.
 3. Random sample, sampling distributions and characteristics.
 4. Some important statistics and their distributions.
 5. Point estimators and their properties.
 6. Maximum likelihood method.
 7. Interval estimates, confidence interval construction (2 weeks).
 8. Testing of statistical hypothesis (critical region, level of significance and power of test, methods for searching optimal critical regions).
 9. Some important parametric tests (2 weeks).
 10. Some important nonparametric tests (2 weeks).

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. Anděl J.: Základy matematické statistiky, MatfyzPress, Praha, 2011 (in Czech)

Course language:
 Slovak

Notes:

Course assessment					
Total number of assessed students: 158					
A	B	C	D	E	FX
25.32	20.89	13.92	18.99	12.66	8.23

Provides: doc. RNDr. Martina Hančová, PhD.

Date of last modification: 14.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 1

Recommended semester/trimester of the course:

Course level: I.

Prerequisities: 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

Notes:

Course assessment
 Total number of assessed students: 86

A	B	C	D	E	FX
31.4	19.77	22.09	17.44	9.3	0.0

Provides:

Date of last modification: 21.05.2016

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ MPG/21	**Course name:** Metageography and 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 ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 84

A	B	C	D	E	FX
41.67	47.62	5.95	1.19	0.0	3.57

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

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ HGV/21	**Course name:** Methods of human geographical research

Course type, scope and the method:
  Course type: Practice
  Recommended course-load (hours):
  Per week: 3 **Per study period:** 42
  Course method: present

Number of ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: RNDr. Stela Csachová, PhD., Mgr. Marián Kulla, PhD., RNDr. Janetta Nestorová-Dická, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ FGV/21	**Course name:** Methods of physical geographical research

Course type, scope and the method:
 Course type: Practice
 Recommended course-load (hours):
 Per week: 3 **Per study period:** 42
 Course method: present

Number of ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 2

A	B	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., doc. Ing. Katarína Bónová, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ MTK/21	**Course name:** Methods of thematic cartography

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

Number of ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:
The evaluation is based on the submitted assignments from the exercises.
Exercises are realized in the form of regular teaching, the introduction of the exercise is devoted to the theoretical basis, followed by the practical part of the exercise, which aims to work with spatial data in order to create a thematic map. During the semester, students will receive assignments aimed at creating a thematic map using selected methods of thematic cartography. Students submit assignments on an ongoing basis. Each assignment is evaluated separately. In order for the assignment to be accepted, it is necessary to obtain a minimum grade E from each assignment. The final evaluation is the average of the evaluation of individual assignments. Credits will be awarded only to a student who achieves a grade of at least E in the overall evaluation. Rating scale: A (100-91%), B (81-90%,) C (71-80%), D (61-70 %), E (51-60%).

Learning outcomes:
Knowledge: The student will gain knowledge and skills from thematic cartography. They will get acquainted with the theoretical aspects of the content and principles of creating thematic maps. He will gain theoretical foundations and an overview of various aspects of thematic cartography, such as color theory in cartography, types of scales and division of the statistical file into intervals. They will get acquainted with the means of expression cartographic and methods of thematic cartography and gain an overview of the use of dynamic elements of cartographic visualization. Skills: The student will learn to create thematic maps using GIS professionally and cartographically correctly. Can evaluate the suitability of the cartographic method for the representation of various geographical phenomena and determine the optimal procedure for creating thematic maps. Competences: The student is able to evaluate the thematic maps and the suitability of the methods of thematic cartography with a high degree of independence. He will get acquainted with professional terminology in the field of thematic cartography of geodesy, which will enable him to communicate and collaborate with other experts in the field of geodesy, geoinformatics and cartography.

Brief outline of the course:
Exercises: Introduction to thematic cartography (content and types of thematic maps, phases and principles of creating thematic maps, compiling the content of the thematic map); Means of expression; Colors in maps; Scales (data evaluation, division of scales, creation of interval and

functional scales, methods for plotting extremes in a statistical file); Legend of thematic maps; Point character method; Line character method; Area character method; Comma method; Isolinia method; Cartographs and cartograms method; Cartographic anamorphosis and cartotypogram method; methods for expressing the dynamics of spatial phenomena; Description in maps; composition of thematic maps; Geospatial data topology control and map generalization. Evaluation of maps and atlases; Animations, interactive maps and virtual reality in cartography.

Recommended literature:
VOŽENÍLEK, V. (2005). Cartography for GIS: geovisualization and map communication. Olomouc, Vydavatelství UP.
KRAAK, M.J., ORMELING, F. (2003). Cartography. Visualization of Geospatial Data. Harlow. Prentice Hall, Pearson Education.
PETERSON, M. P. ET AL. (1995). Interactive and Animated Cartography. Upper Saddle River Prentice Hall.
VOŽENÍLEK, V., KAŇOK, J. A KOL. (2012). Metody tematické kartografie: vizualizace prostorových informací. Olomouc, Univerzita Palackého v Olomouci.
SLOCUM, T.A. ET AL. (2002). Thematic Cartography and Visualization. Upper Saddle River, Pearson/Prentice Hall.

Course language:

Notes:

Course assessment
Total number of assessed students: 10

A	B	C	D	E	FX
70.0	20.0	0.0	0.0	0.0	10.0

Provides: doc. RNDr. Ján Kaňuk, PhD., Mgr. Jozef Šupinský, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:
Continuous assessment: feedback in MOODLE, small tests during tutorial (notions), two written exams (solving problems). Final oral exam: ability of verbal argumentation and graphical explanation of studied models.

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. lms.upjs.sk: lectures, tutorials and other material
2. H.L. Varian, Intermediate Mikroekonomics, WW Norton, 1993
3. J.M. Perloff, Microeconomics, 6th Edtion, Addison Wesley, 2012
4. J. Sloman, Economics, 6th Edition, Prentice Hall, 2006

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 85

A	B	C	D	E	FX
24.71	23.53	17.65	18.82	12.94	2.35

Provides: prof. RNDr. Katarína Cechlárová, DrSc.

Date of last modification: 17.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course:

Course level: I.

Prerequisities:

Conditions for course completion:
Elaboration and presentation of a semester work with a weight of 70% of the total evaluation, passing a final test with a success rate of over 50% and a weight of 30% of the total evaluation. The course consists of theoretical and practical part. In the theoretical part, students are presented with the basic knowledge necessary to master the practical part - semester work, which the student demonstrates independent mastery of the issue.

Learning outcomes:
Ability to analyze and synthesize a selected micro-region (local country) for the needs of state administration, self-government and teaching practice.

Brief outline of the course:
1. Theory and methodology of the subject, object and subject of microgeography.
2. Historical development and present of microgeography; genius loci, identity with territory
3. - 4. Differentiation of the landscape sphere on the example of a selected microregion I. - physical geography (location and delimitation of the area - geological conditions - relief - climate - water - soils - flora - fauna)
5. - 6. Differentiation of the landscape sphere on the example of a selected microregion II. - human geography (population - settlement structure - production sphere - non-production sphere).
7. Presentation of the first part of the semester work - physical geography
8. Regionalization; microregional associations of municipalities, local action groups, examples of microregions in the Košice region
9. - 10. Application of knowledge of microgeography in practice (in state administration, self-government and teaching practice),
11. Presentation II. parts of semester work - human geography
12. Final test
13. Final evaluation

Recommended literature:
DUBCOVÁ, A. 2012: Mikrogeografia – krajina okolo nás, UKF Nitra, 185 s.
HASPROVÁ, M. 2006: Geografia miestnej krajiny v edukačnom procese, UKF Nitra, 203 s.
KANDRÁČOVÁ, V., MICHAELI, E. 1996: Mikrogeografia v edukácii, výskume a pre prax.

In: Krajina východného Slovenska v odborných a vedeckých prácach. Prešov: KGG PdF UPJŠ, 1997, s. 265 – 285

KROPILÁK, M. (ed.) 1977: Vlastivedný slovník obcí na Slovensku I. 1. vyd. Bratislava : Veda, 526 s.

KROPILÁK, M. (ed.) 1977: Vlastivedný slovník obcí na Slovensku II. 1. vyd. Bratislava : Veda, 517 s.

KROPILÁK, M. (ed.) 1978: Vlastivedný slovník obcí na Slovensku III. 1. vyd. Bratislava : Veda, 532 s.

LUKNIŠ, M., 1977: Geografia krajiny Jura pri Bratislave. UK, Bratislava. 211 s.

Ďalšia literatúra podľa zvoleného územia

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 91

A	B	C	D	E	FX
41.76	41.76	14.29	2.2	0.0	0.0

Provides: Mgr. Imrich Sládek, PhD.

Date of last modification: 28.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ MKR/21	**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 ECTS credits: 3	
Recommended semester/trimester of the course: 6.	
Course level: I.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 2

A	B	C	D	E	FX
0.0	100.0	0.0	0.0	0.0	0.0

Provides: Mgr. Imrich Sládek, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ NSGE/15	**Course name:** Mineral Resources - geological and environmental relations

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 142

A	B	C	D	E	FX
43.66	25.35	19.01	9.15	0.7	2.11

Provides: doc. Ing. Katarína Bónová, PhD.

Date of last modification: 30.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 191

A	B	C	D	E	FX
41.88	42.93	13.61	1.05	0.52	0.0

Provides: PaedDr. Michal Novocký, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities: 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

Notes:

Course assessment
 Total number of assessed students: 104

A	B	C	D	E	FX
34.62	26.92	22.12	14.42	1.92	0.0

Provides:

Date of last modification: 03.05.2015

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 961

A	B	C	D	E	FX
23.1	29.24	23.41	13.84	8.84	1.56

Provides: PaedDr. Michal Novocký, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ EXF/21	**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 ECTS credits: 3
Recommended semester/trimester of the course: 4.
Course level: I.
Prerequisities:
Conditions for course completion:
Learning outcomes:
Brief outline of the course:
Recommended literature:
Course language:
Notes:

Course assessment Total number of assessed students: 4	
abs	n
100.0	0.0

Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.
Date of last modification: 27.06.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 798

A	B	C	D	E	FX
88.85	8.9	1.13	0.13	0.38	0.63

Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD.

Date of last modification: 19.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 544

A	B	C	D	E	FX
20.4	28.68	30.88	13.24	3.86	2.94

Provides: RNDr. Alena Gessert, PhD., Mgr. Jozef Šupinský, PhD.

Date of last modification: 28.09.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ FGS1/21	**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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 33

A	B	C	D	E	FX
27.27	27.27	33.33	6.06	0.0	6.06

Provides: RNDr. Alena Gessert, PhD., doc. RNDr. Ján Kaňuk, PhD.

Date of last modification: 14.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ FYG1/18	**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 ECTS credits: 6

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

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 systens of the soil classification. Distribution of different soil types in the world and Slovakia, principles of the soil zonality.

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 767

A	B	C	D	E	FX
2.35	5.61	21.12	27.25	36.25	7.43

Provides: RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., Mgr. Imrich Sládek, PhD., Mgr. Ján Šašak, PhD.

Date of last modification: 19.08.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:
Atmosphere:
1. Introduction to the study of meteorology and climatology (basic terms and definitions, history of meteorology and climatology in the world and in Slovakia, methods of obtaining data on weather and climate)
2. Atmosphere (composition and vertical division of the atmosphere, temperature and radiation balance)
3. Meteorological elements (solar radiation, air temperature, water in the atmosphere - air humidity, air pressure, air flow - wind)
4. Global atmospheric circulation (tropical and mimotropic circulation, air masses and atmospheric fronts)
5. Global climate (Earth's climate system, climate classifications in the world and in Slovakia)
6. Climate change (climate change in the geological history of the Earth, current climate change)
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:

Notes:

Course assessment
Total number of assessed students: 717

A	B	C	D	E	FX
28.17	27.62	26.08	11.44	6.14	0.56

Provides: RNDr. Alena Gessert, PhD., Mgr. Imrich Sládek, PhD., RNDr. Dušan Barabas, CSc.
Date of last modification: 01.02.2022
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚGE/ POL2/21	**Course name:** Political geography

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 ECTS credits: 5

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
0.0	66.67	33.33	0.0	0.0	0.0

Provides: RNDr. Stela Csachová, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ POL1/18	**Course name:** Political geography and geopolitics

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 ECTS credits: 5

Recommended semester/trimester of the course: 6.

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 341

A	B	C	D	E	FX
43.4	31.96	15.54	6.74	2.05	0.29

Provides: RNDr. Stela Csachová, PhD., Mgr. Štefan Gábor, doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 12.09.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ GOBY/21	**Course name:** Population Geography

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 77

A	B	C	D	E	FX
6.49	5.19	27.27	33.77	20.78	6.49

Provides: doc. Mgr. Ladislav Novotný, PhD., RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ PVS/18	**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 ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

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 fullfil 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:

Notes:

Course assessment Total number of assessed students: 155					
A	B	C	D	E	FX
54.19	7.1	16.77	9.68	9.68	2.58

Provides: RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 29.03.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:
Assessment is based on interim evaluation. The subject will be taught in both present and distance format. Up-to-date information concerning the subject for the given academic year can be found on the electronic board of the subject in the Academic information system of the UPJŠ.

Learning outcomes:
Students will acquire basic knowledge concerning the reasons for founding Positive psychology, its main theory, current research, as well as application of Positive psychology as a new and rapidly developing field within psychology. Students will also gain experience in applying critical thinking to the challenges and issues that Positive psychology brings and raises in the context of the individual in contemporary society. Emphasis is placed on the ability to critically evaluate current topics of positive psychology.

Brief outline of the course:
1. Different perspectives on well-being nad happiness in psychology
2. Main theoretical approaches to positive psychology
3. Positive emotions and positivity
4. Meaningfulness
5. Positive interpersonal relations
6. Post-traumatic growth
7. Hope and optimism
8. Gratitude
9. Spirituality as a personality dimension
10. Wisdom
11. Positive institutions
12. New themes and topics in PP

Recommended literature:
Brewer, M. B, Hwestone, M: Emotion and Motivation, Blackwell, 2004
Deci, E., Ryan R. M., Handbook of Self – Determination Reasearch, Rochester, 2002
Křivohlavý, J.: Pozitivní psychologie. Praha, Portál, 2003
Křivohlavý, J.: Psychologie vděčnosti a nevděčnosti. Praha, Grada, 2007
Křivohlavý, J.: Psychologie moudrosti a dobrého života, Praha, Grada, 2012

Křivohlavý, J.: Psychologie pocitu štěstí, Grada, 2013

McAdams, D. P., The Person, New York, 2002

Seligman, M. E. P., & Csikszentmihalyi, M. (Eds.). (2000). Positive psychology [Special issue] American Psychologist, 55(1).

Říčan, P.: Psychologie náboženství a spirituality, Praha, Portál, 2007

Slezáčková, A.:Pruvodce pozitivní psychologií, Praha, Grada, 2012

Course language:

Notes:

Course assessment
Total number of assessed students: 408

A	B	C	D	E	FX
98.28	1.23	0.25	0.0	0.25	0.0

Provides: Mgr. Jozef Benka, PhD.

Date of last modification: 24.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚMV/ TPP/19	**Course name:** Probability theory

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

Number of ECTS credits: 5

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities: ÚMV/MAN1c/22 or ÚMV/MAN2c/22 or ÚMV/FRPa/19

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, chi-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)
5. Potocký a kol.: Zbierka úloh z pravdepodobnosti a matematickej štatistiky, Alfa, Bratislava, 1991

Course language:
Slovak

Notes:

Course assessment					
Total number of assessed students: 359					
A	B	C	D	E	FX
14.48	13.93	17.27	21.73	25.07	7.52

Provides: doc. RNDr. Daniel Klein, PhD., RNDr. Andrej Gajdoš, PhD.

Date of last modification: 27.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 1., 3., 5.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 749

A	B	C	D	E	FX
36.85	18.42	16.82	13.48	12.42	2.0

Provides: PhDr. Anna Janovská, PhD., Mgr. Ondrej Kalina, PhD.

Date of last modification: 24.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: I.

Prerequisities:

Conditions for course completion: The evaluation of the course and its subsequent completion will be based on clearly and objectively set requirements, which will be set in advance and will not change. The aim of the assessment is to ensure an objective and fair mapping of the student's knowledge while adhering to all ethical and moral standards. There is no tolerance for students' fraudulent behavior, whether in the teaching process or in the assessment process. 1. Active participation in seminars 2. Elaboration and presentation of PPT presentation on the assigned topic. Maximum number of points 20; minimum number of points 11. 3. Elaboration of an essay in the range of 4xA4 (standard pages). Maximum number of points 20; minimum number of points 11. The final evaluation (grade) is the sum of points for the presentation and the essay. A 40b - 37b B 36b - 33b C 32b - 29b D 28b - 25b E 24b - 21b FX 20b - 0b

Learning outcomes: The student is able to demonstrate an understanding of the individual's behavior in selected everyday situations such as conflict, group influence, empathy, helping, aggression, etc. The student is able to describe, explain and evaluate the psychological mechanisms that occur in everyday situations. The student is able to apply basic psychological knowledge to himself (self-regulation) but also in interaction with others (cooperation). The method of teaching the subject will be oriented to the student. Speakers will be interested in the needs, expectations and opinions of students so as to encourage them to think critically by expressing respect and feedback on their opinions and needs. The content of the curriculum will be based on primary and high-quality sources that will reflect the topicality of the topics so as to ensure the connection of the curriculum with other subjects and also

the connection of the curriculum with practice. Students will be expected to take an active approach in lectures and seminars with an emphasis on their independence and responsibility.

Brief outline of the course:
How to understand human behavior (overview of basic approaches in psychology); Basic overview of cognitive processes; Learning processes and their use in practice; Social influences, prosocial and antisocial behavior; How human emotions and motivations work; Deciding - why and when we take risks; Childhood experiences and their relationship to adulthood; Abnormal behavior, mental disorders and therapeutic approaches

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 208

A	B	C	D	E	FX
42.79	21.15	28.85	5.29	1.44	0.48

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 24.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚGE/ KMG/17	**Course name:** Quantitative Methods in Geography

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 ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 192

A	B	C	D	E	FX
26.04	18.23	20.31	18.75	16.67	0.0

Provides: RNDr. Janetta Nestorová-Dická, PhD., prof. Mgr. Jaroslav Hofierka, PhD., Mgr. Patrícia Gurová

Date of last modification: 29.03.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ RGE2/21	**Course name:** Regional Geography of Europe

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 ECTS credits: 5

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 3

A	B	C	D	E	FX
0.0	0.0	33.33	66.67	0.0	0.0

Provides: RNDr. Stela Csachová, PhD., RNDr. Alena Gessert, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 285

A	B	C	D	E	FX
45.61	29.82	14.39	6.32	3.16	0.7

Provides: PaedDr. Michal Novocký, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚTVŠ/ ÚTVŠ/CM/13	Course name: Seaside Aerobic Exercise

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:
 Completion: passed
 Condition for successful course completion:
 - active participation in line with the study rule of procedure and course guidelines
 - effective performance of all tasks- aerobics, water exercise, yoga, Pilates and others

Learning outcomes:
 Content standard:
 The student demonstrates relevant knowledge and skills in the field, which content is defined in the course syllabus and recommended literature.
 Performance standard:
 Upon completion of the course students are able to meet the performance standard and:
 - perform basic aerobics steps and basics of health exercises,
 - conduct verbal and non-verbal communication with clients during exercise,
 - organise and manage the process of physical recreation in leisure time

Brief outline of the course:
 Brief outline of the course:
 1. Basic aerobics – low impact aerobics, high impact aerobics, basic steps and cuing
 2. Basics of aqua fitness
 3. Basics of Pilates
 4. Health exercises
 5. Bodyweight exercises
 6. Swimming
 7. Relaxing yoga exercises
 8. Power yoga
 9. Yoga relaxation
 10. Final assessment
 Students can engage in different sport activities offered by the sea resort – swimming, rafting, volleyball, football, table tennis, tennis and other water sports in particular.

Recommended literature:
 1. BUZKOVÁ, K. 2006. Fitness jóga. Praha: Grada. 167 s.

2. ČECHOVSKÁ, I., MILEROVÁ, H., NOVOTNÁ, V. Aqua-fitness. Praha: Grada. 136 s.
3. EVANS, M ., HUDSON, J., TUCKER, P. 2001. Umění harmonie: meditace, jóga, tai-či, strečink. 192 s.
4. JARKOVSKÁ, H., JARKOVSKÁ, M. 2005. Posilováni s vlastním tělem 417 krát jinak. Praha: Grada. 209 s.
5. KOVAŘÍKOVÁ, K. 2017. Aerobik a fitness. Karolium, 130 s.

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 54

abs	n
11.11	88.89

Provides: Mgr. Agata Dorota Horbacz, PhD.

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: KF/ VKFV/07	**Course name:** Selected Topics in Philosophy of Education (General Introduction)

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

Number of ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 16

A	B	C	D	E	FX
37.5	37.5	18.75	6.25	0.0	0.0

Provides: PhDr. Dušan Hruška, PhD.

Date of last modification: 13.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:
 According to tests and to the exam.

Learning outcomes:
 To develop students' abstract thinking. Follow up on the acquired knowledge of algebra, expand it and generalize; be able to apply the acquired knowledge to specific examples. Demonstrate knowledge of mathematical content in context.

Brief outline of the course:
 Relations, operations, algebraic structures.
 Substructures.
 Homomorphisms, isomorphisms.
 Congruences, homomorphism theorems.
 Terms, term operations, identities.

Recommended literature:
 B. Jónsson: Topics in Universal Algebra, Springer-Verlag 1972
 M. Kolibiar a kol.: Algebra a príbuzné disciplíny, Bratislava 1992
 S.N. Burris and H.P. Sankappanavar: A Course in Universal Algebra 2000, http:// www.math.uwaterloo.ca/~snburris/htdocs/ualg.html

Course language:
 Slovak

Notes:

Course assessment
 Total number of assessed students: 72

A	B	C	D	E	FX
16.67	20.83	25.0	19.44	13.89	4.17

Provides: prof. RNDr. Danica Studenovská, CSc.

Date of last modification: 24.11.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 3

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities: ÚMV/MAN2c/10

Conditions for course completion:
 It is based on the results of written and oral 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:
 Theory of Equations and Inequalities, Solving Higher Order Polynomials, The Role of CAS systems in Solving Equations and Inequalities,
 Building the Real Number System, Rational and Irrational Numbers, Farey Sequences, Review of Geometric Series: Preparation for Decimal Representation, Decimal Expansion, Decimal Periodicity, Building the Complex Numbers, Operating on the Complex Numbers, Picturing Complex Numbers and Connections to Transformation Geometry, The Polar Form of Complex Numbers and De Moivre's Theorem, Some Connections to Roots of Polynomials, Euler's Identity and the Irrationality of e,
 Functions and Modeling, Ways of Representing Functions, Solutions of Cubic Equations Using Trigonometry

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

Notes:

Course assessment
 Total number of assessed students: 45

A	B	C	D	E	FX
6.67	28.89	13.33	26.67	24.44	0.0

Provides: prof. RNDr. Jozef Doboš, CSc.

Date of last modification: 17.09.2021
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SBP1/13	**Course name:** Seminar for Bachelor Thesis 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 ECTS credits: 2

Recommended semester/trimester of the course: 5.

Course level: I.

Prerequisities:

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:
ÚTVAR REKTORA UPJŠ 2019: Základné usmernenia a dokumenty k záverečným prácam na UPJŠ v Košiciach. Dostupné na: <https://www.upjs.sk/pracoviska/univerzitna-kniznica/ zaverecne-prace/>.
ÚSTAV GEOGRAFIE PF UPJŠ 2019: Pokyny na tvorbu záverečných prác na Ústave gego-rafie Prírodovedeckej fakulty UPJŠ v Košiciach. Dostupné na: <https://geografia.science.upjs.sk/ images/studium/Pokyny_ZP_UGE_2019.pdf>.
HOVORKA, D., KOMÁREK, K., CHRAPAN, J. 2011: Ako písať a komunikovať. Martin (Vydavateľstvo Osveta).
KATUŠČÁK, D. 2008: Ako písať záverečné a kvalifikačné práce. Nitra (Enigma).

Course language:
Slovak

Notes:

Course assessment					
Total number of assessed students: 448					
A	B	C	D	E	FX
91.96	6.7	0.67	0.0	0.67	0.0

Provides: prof. Mgr. Jaroslav Hofierka, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 22.09.2020

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SBP2/13	**Course name:** Seminar for Bachelor Thesis 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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

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 os 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

Notes:

Course assessment
 Total number of assessed students: 391

A	B	C	D	E	FX
69.57	21.48	7.67	0.51	0.26	0.51

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

Date of last modification: 03.05.2015

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SHG/21	**Course name:** Seminar of human 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 ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

abs	n
0.0	0.0

Provides: Mgr. Marián Kulla, PhD., RNDr. Stela Csachová, PhD., RNDr. Janetta Nestorová-Dická, PhD., doc. Mgr. Ladislav Novotný, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SFG/21	**Course name:** Seminar of physical 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 ECTS credits: 3

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 0

abs	n
0.0	0.0

Provides: RNDr. Dušan Barabas, CSc., doc. Ing. Katarína Bónová, PhD., RNDr. Alena Gessert, PhD.

Date of last modification: 27.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I., II.

Prerequisities:

Conditions for course completion: Conditions for continuous evaluation: 1. Participation in teaching in accordance with the study rules and instructions of the teacher. 2. Activity. 3. Homework and tests. 4. Seminar work and its presentation at the seminar – poster from history of mathematics on the selected topic Conditions for successful completion of the course: 1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher; 2. Credits will be awarded to students who score at least 50% on homework assignments and tests. Additional points can be achieved for the presentation of a seminar paper.

Learning outcomes: Students will demonstrate an understanding of the history of the development of some mathematical disciplines and selected concepts, and parallels between the phylogeny and ontogeny of mathematical thinking. They will demonstrate this understanding by scoring at least 50% on tests given at the beginning of the seminar on previous topics and on homework assignments.

Brief outline of the course: Prehistory, ontogeny and phylogeny. Mathematics in ancient cultures: Egypt, Mesopotamia, China, India. Mathematics in ancient Greece: Origins of Greek natural philosophy and mathematics. The discovery of incommensurability and its consequences (Pythagoras and his school). Classical problems of Greek mathematics. Problems with infinity (Zeno). Eudoxus' method. Plato, Aristotle, Euclid and his Foundations. Archimedes of Syracuse, Eratosthenes, Apollónios, Claudios Ptolemy, Diophantos. Arabic mathematics and its relation to medieval European mathematics. The origins of modern mathematics. The search for the roots of polynomial equations. The origins of analytic geometry. Probability. Infinitesimal calculus. Number theory. Non-Euclidean geometry. The origin of set theory. Development of mathematical symbolism.

Selected topics in school mathematics from the perspective of the history of mathematics.

Recommended literature:
Burton, D. M.: The History of Mathematics: An Introduction. McGraw−Hill, 2007.
Devlin, K.: Jazyk matematiky. Dokořán, 2002. (in czech)
Čižmár, J . Dejiny matematiky (Od najstarších čias po takmer súčasnosť) Perfekt, 2017. (in slovak)
Mareš , M . Příběhy matematiky. Pistorius, 2011. (in czech)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 125

A	B	C	D	E	FX
72.0	12.0	8.8	3.2	3.2	0.8

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 31.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

Recommended semester/trimester of the course: 6.

Course level: I.

Prerequisities:

Conditions for course completion:
Conditions for continuous evaluation:
1. Participation in teaching in accordance with the study rules and instructions of the teacher.
2. Activity.
3. Homework and written tests.
4. Seminar work and its presentation at the seminar - plan the selected topic for one math circle
Conditions for successful completion of the course:
1. Participation in teaching in accordance with the study regulations and according to the instructions of the teacher;
2. Credits will be awarded to a student who scores at least 50% on homework assignments, at least 50% on written tests, and at least 50% on a seminar work. A grade of A requires at least 90%, a grade of B requires at least 80%, a grade of C requires at least 70%, a grade of D requires at least 60%, and a grade of E requires at least 50%.

Learning outcomes:
While solving homework, the student will become familiar with different types of problems from mathematical competitions and demonstrate the ability to solve them with the mathematical apparatus of the student for whom the problem is intended.
While solving problems in written tests, the student will gain proficiency in solving problems from mathematical competitions such as Pythagorean and Mathematical Kangaroo.
The student will demonstrate in the seminar work that he/she can prepare the content of a mathematics circle that are motivating for his/her students.

Brief outline of the course:
The content is focuses on solving problems from mathematical competitions, and on familiarization with activities that will be motivating and fun for pupils and will develop their mathematical thinking
Students will also learn about the structure of mathematical competitions for middle and high school students and will be theoretically prepared for guiding mathematics circle.
The seminars focus on the following topics:
Number theory.
Equations, inequalities, inequalities.

Word problems.
Planimetry.
Stereometry.
Combinatorics. Dirichlet principle. Combinatorial geometry. Probability.
Mathematical games.

Recommended literature:
Acheson, D.: 1089 a další parádní čísla, Dokořán, 2006. (in czech)
Brožúry z edície Škola mladých matematikov. (in slovak)
Séria 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 seminářu, Prometheus, Praha, 2006.
(in czech)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 133

A	B	C	D	E	FX
57.14	20.3	12.03	7.52	3.01	0.0

Provides: doc. RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 18.04.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:
Evaluation of the developed assignment.
A ... 100,00% - 91,00%
B ... 90,99% - 81,00%
C ... 80,99% - 71,00%
D ... 70,99% - 61,00%
E ... 60,99% - 51,00%
FX ... 50,99% and less

Learning outcomes:
The aim and purpose of teaching the subject is to impart knowledge and promote reflection on the issues of education and training in the context of social and political change.
Development of knowledge: the student will be able to know the current theoretical background related to the process of education and training in a modern democratic society.
The student will be able to navigate the social and political space - politically, legally, socially and culturally. He/she will be able to look for alternatives and solutions to dysfunctions, while at the same time exploiting opportunities and ways to implement them.

Brief outline of the course:
The status, role and functions of education in human life and society. The political, social and economic objectives of education. Education, learning and social change in the context of globalisation. Macrosocial determinants of education. Current roles of education and training in modern performance and democratic society.

Recommended literature:
Domestic and foreign journal literature
Kudláčová, B.(2007) Človek a výchova v dejinách európskeho myslenia. Trnava: PdF TU
Zeus Leonardo (2010) Handbook of Cultural Politics and Education. Rotterdam, The Netherlands.

Course language:
Slovak

Notes:

Course assessment Total number of assessed students: 157					
A	B	C	D	E	FX
60.51	21.02	11.46	4.46	1.27	1.27
Provides: Mgr. Ján Ruman, PhD.					
Date of last modification: 13.04.2022					
Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.					

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 ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I.

Prerequisities:

Conditions for course completion:
Active participation in class and completed homework assignments. Students are allowed to miss 2 classes at the most (2x90 min.). 1 control tests during the semester and written assignments. 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:
The development of students´ language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the language for a given purpose, with focus on Academic English and English for specific/professional purposes - Natural Science , level B1.

Brief outline of the course:

Recommended literature:
Duden Basiswissen Schule. Abitur: Enthält die Bände Mathematik, Physik, Chemie, Biologie, Geographie, Geschichte. (2007). ISBN: 978-3411002511.
Zettl, E. et al.: Aus moderner Technik und Naturwissenschaft. Ismaning: Hueber, 2003.
Reiss, K.: Basiswissen Zahlentheorie: Eine Einführung in Zahlen und Zahlbereiche (Mathematik für das Lehramt), Springer, 2007. ISBN: 978-3540453772.
Meyer, L., Schmidt, G.- D.: Basiswissen Ausbildung: Physik. Bildungsverlag EINS, 2008. ISBN: 978-3427799337.
Duden. Schülerduden Biologie: Das Fachlexikon von A-Z. Bibliographisches Institut Berlin, 2009. ISBN: 978-3411054275.
Mortimer, Ch. E., Müller, U., Beck, J.: Chemie: Das Basiswissen der Chemie. Stuttgart: Thieme, 2014. ISBN: 978-313484311
Deutsch perfekt, GEO, MaxPlanck Forschung a iné printové a elektronické médiá

Course language:
German

Notes:

Course assessment					
Total number of assessed students: 147					
A	B	C	D	E	FX
24.49	23.13	23.81	20.41	7.48	0.68

Provides: Mgr. Blanka Jenčíková

Date of last modification: 09.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚTVŠ/ TVa/11	**Course name:** Sports Activities I.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:
 Min. 80% of active participation in classes.

Learning outcomes:
 Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.

Brief outline of the course:
 Brief outline of the course:
 Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess.
 In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness.
 Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness.
 In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature:
 BENCE, M. et al. 2005. Plávanie. Banská Bystrica: FHV UMB. 198s. ISBN 80-8083-140-8.
 [online] Dostupné na: https://www.ff.umb.sk/app/cmsFile.php?disposition=a&ID=571
 BUZKOVÁ, K. 2006. Fitness jóga, harmonické cvičení těla I duše. Praha: Grada. ISBN 8024715252.
 JARKOVSKÁ, H, JARKOVSKÁ, M. 2005. Posilování s vlastním tělem 417 krát jinak. Praha: Grada. ISBN 9788024757308.
 KAČÁNI, L. 2002. Futbal:Tréning hrou. Bratislava: Peter Mačura – PEEM. 278s. ISBN 8089197027.

KRESTA, J. 2009. Futsal.Praha: Grada Publishing, a.s. 112s. ISBN 9788024725345.
LAWRENCE, G. 2019. Power jóga nejen pro sportovce. Brno: CPress. ISBN 9788026427902.
SNER, Wolfgang. 2004. Posilování ve fitness. České Budějovice: Kopp. ISBN 8072322141.
STACKEOVÁ, D. 2014. Fitness programy z pohledu kinantropologie. Praha: Galén. ISBN 9788074921155.
VOMÁČKO, S. BOŠTÍKOVÁ, S. 2003. Lezení na umělých stěnách. Praha: Grada. 129s. ISBN 8024721743.

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 14548

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
86.46	0.07	0.0	0.0	0.0	0.05	8.41	5.02

Provides: Mgr. Agata Dorota Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., MPH, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Mgr. Richard Melichar, Mgr. Petra Tomková, PhD., MUDr. Peter Dombrovský

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science

Course ID: ÚTVŠ/ TVb/11	**Course name:** Sports Activities II.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion: active participation in classes - min. 80%.

Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.

Brief outline of the course: Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness. In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature: BENCE, M. et al. 2005. Plávanie. Banská Bystrica: FHV UMB. 198s. ISBN 80-8083-140-8. [online] Dostupné na: https://www.ff.umb.sk/app/cmsFile.php?disposition=a&ID=571 BUZKOVÁ, K. 2006. Fitness jóga, harmonické cvičení těla I duše. Praha: Grada. ISBN 8024715252. JARKOVSKÁ, H, JARKOVSKÁ, M. 2005. Posilování s vlastním tělem 417 krát jinak. Praha: Grada. ISBN 9788024757308. KAČÁNI, L. 2002. Futbal:Tréning hrou. Bratislava: Peter Mačura – PEEM. 278s. ISBN 8089197027. KRESTA, J. 2009. Futsal.Praha: Grada Publishing, a.s. 112s. ISBN 9788024725345.

LAWRENCE, G. 2019. Power jóga nejen pro sportovce. Brno: CPress. ISBN 9788026427902.
SNER, Wolfgang. 2004. Posilování ve fitness. České Budějovice: Kopp. ISBN 8072322141.
STACKEOVÁ, D. 2014. Fitness programy z pohledu kinantropologie. Praha: Galén. ISBN 9788074921155.
VOMÁČKO, S. BOŠTÍKOVÁ, S. 2003. Lezení na umělých stěnách. Praha: Grada. 129s. ISBN 8024721743.

Course language:

Slovak language

Notes:

Course assessment

Total number of assessed students: 13211

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
84.35	0.51	0.02	0.0	0.0	0.05	10.78	4.29

Provides: Mgr. Agata Dorota Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., MPH, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Marcel Čurgali, Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Mgr. Richard Melichar, Mgr. Petra Tomková, PhD., MUDr. Peter Dombrovský

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ TVc/11	Course name: Sports Activities III.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 3.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion: min. 80% of active participation in classes

Learning outcomes: Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.

Brief outline of the course: Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess. In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness. In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature: BENCE, M. et al. 2005. Plávanie. Banská Bystrica: FHV UMB. 198s. ISBN 80-8083-140-8. [online] Dostupné na: https://www.ff.umb.sk/app/cmsFile.php?disposition=a&ID=571 BUZKOVÁ, K. 2006. Fitness jóga, harmonické cvičení těla I duše. Praha: Grada. ISBN 8024715252. JARKOVSKÁ, H, JARKOVSKÁ, M. 2005. Posilování s vlastním tělem 417 krát jinak. Praha: Grada. ISBN 9788024757308. KAČÁNI, L. 2002. Futbal:Tréning hrou. Bratislava: Peter Mačura – PEEM. 278s. ISBN 8089197027. KRESTA, J. 2009. Futsal.Praha: Grada Publishing, a.s. 112s. ISBN 9788024725345.

LAWRENCE, G. 2019. Power jóga nejen pro sportovce. Brno: CPress. ISBN 9788026427902.
SNER, Wolfgang. 2004. Posilování ve fitness. České Budějovice: Kopp. ISBN 8072322141.
STACKEOVÁ, D. 2014. Fitness programy z pohledu kinantropologie. Praha: Galén. ISBN 9788074921155.
VOMÁČKO, S. BOŠTÍKOVÁ, S. 2003. Lezení na umělých stěnách. Praha: Grada. 129s. ISBN 8024721743.

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 8879

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.62	0.07	0.01	0.0	0.0	0.02	4.25	7.03

Provides: Mgr. Marcel Čurgali, Mgr. Agata Dorota Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., MPH, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Mgr. Richard Melichar, Mgr. Petra Tomková, PhD., MUDr. Peter Dombrovský

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚTVŠ/ TVd/11	**Course name:** Sports Activities IV.

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

Number of ECTS credits: 2

Recommended semester/trimester of the course: 4.

Course level: I., I.II., II.

Prerequisities:

Conditions for course completion:
min. 80% of active participation in classes

Learning outcomes:
Sports activities in all their forms prepare university students for their professional and personal life. They have a great impact on physical fitness and performance. Specialization in sports activities enables students to strengthen their relationship towards the selected sport in which they also improve.

Brief outline of the course:
Within the optional subject, the Institute of Physical Education and Sports of Pavol Jozef Šafárik University provides for students the following sports activities: aerobics, aikido, basketball, badminton, body form, bouldering, floorball, yoga, power yoga, pilates, swimming, body-building, indoor football, S-M systems, step aerobics, table tennis, tennis, volleyball and chess.
In the first two semesters of the first level of education students will master basic characteristics and particularities of individual sports, motor skills, game activities, they will improve level of their physical condition, coordination abilities, physical performance, and motor performance fitness. Last but not least, the important role of sports activities is to eliminate swimming illiteracy and by means of a special program of medical physical education to influence and mitigate unfitness.
In addition to these sports, the Institute offers for those who are interested winter and summer physical education trainings with an attractive program and organises various competitions, either at the premises of the faculty or University or competitions with national or international participation.

Recommended literature:
BENCE, M. et al. 2005. Plávanie. Banská Bystrica: FHV UMB. 198s. ISBN 80-8083-140-8. [online] Dostupné na: https://www.ff.umb.sk/app/cmsFile.php?disposition=a&ID=571
BUZKOVÁ, K. 2006. Fitness jóga, harmonické cvičení těla I duše. Praha: Grada. ISBN 8024715252.
JARKOVSKÁ, H, JARKOVSKÁ, M. 2005. Posilování s vlastním tělem 417 krát jinak. Praha: Grada. ISBN 9788024757308.
KAČÁNI, L. 2002. Futbal:Tréning hrou. Bratislava: Peter Mačura – PEEM. 278s. ISBN 8089197027.
KRESTA, J. 2009. Futsal.Praha: Grada Publishing, a.s. 112s. ISBN 9788024725345.

LAWRENCE, G. 2019. Power jóga nejen pro sportovce. Brno: CPress. ISBN 9788026427902.
SNER, Wolfgang. 2004. Posilování ve fitness. České Budějovice: Kopp. ISBN 8072322141.
STACKEOVÁ, D. 2014. Fitness programy z pohledu kinantropologie. Praha: Galén. ISBN 9788074921155.
VOMÁČKO, S. BOŠTÍKOVÁ, S. 2003. Lezení na umělých stěnách. Praha: Grada. 129s. ISBN 8024721743.

Course language:

Slovak language

Notes:

Course assessment
Total number of assessed students: 5628

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
82.66	0.28	0.04	0.0	0.0	0.0	8.05	8.97

Provides: Mgr. Marcel Čurgali, Mgr. Agata Dorota Horbacz, PhD., Mgr. Dávid Kaško, PhD., Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., MPH, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Patrik Berta, Mgr. Ladislav Kručanica, PhD., Mgr. Richard Melichar, Mgr. Petra Tomková, PhD., MUDr. Peter Dombrovský

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

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

Course ID: ÚGE/ STMG/21	**Course name:** Statistical Methods in Geography

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 ECTS credits: 3

Recommended semester/trimester of the course: 2.

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 76

A	B	C	D	E	FX
34.21	22.37	13.16	14.47	15.79	0.0

Provides: prof. Mgr. Jaroslav Hofierka, PhD., RNDr. Janetta Nestorová-Dická, PhD.

Date of last modification: 12.02.2023

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	

Faculty: Faculty of Science	

Course ID: ÚGE/ SVG/04	**Course name:** Student Scientific Conference in Geography

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

Number of ECTS credits: 4

Recommended semester/trimester of the course: 6.

Course level: I., II.

Prerequisities:

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:

Notes:

Course assessment
 Total number of assessed students: 176

A	B	C	D	E	FX
99.43	0.0	0.0	0.0	0.0	0.57

Provides: prof. RNDr. Peter Spišiak, CSc., RNDr. Dušan Barabas, CSc., RNDr. Alena Gessert, PhD., RNDr. Janetta Nestorová-Dická, PhD., Mgr. Marián Kulla, PhD., doc. Ing. Katarína Bónová, PhD., RNDr. Stela Csachová, PhD.

Date of last modification: 01.12.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 4

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

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

Notes:

Course assessment
 Total number of assessed students: 17

abs	n
100.0	0.0

Provides:

Date of last modification: 01.12.2021

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DGS/21	**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 ECTS credits: 2

Recommended semester/trimester of the course: 1.

Course level: I.

Prerequisities:

Conditions for course completion:
Summary evaluation based on ongoing assessment:
1. Practical ongoing assignments and their defense (at least 50% needed)
3. Active participation during face-to-face contact learning in classical or virtual classroom (3 absences allowed) and during online learning (no absence, uploading all individual ongoing assignments)

Learning outcomes:
The student should obtain and know to apply basic knowledge and skills in working with current digital technologies (mobile phone, tablet, laptop, web technologies):
1. according to the current European framework for the Digital competence DigComp and ECDL
2. for better and more effective learning, work and active life in higher education, later lifelong learning and further career prospects.

Brief outline of the course:
01.-02. Basic digital skills, DigComp framework, ECDL
 - modern web browser and its personalization
 - security, privacy, responsible use of DT
03.-05. Search, collection and evaluation of digital content
 - scanning, audio recording and speech resolution, optical resolution (OCR)
 - digital notebooks (Google keep, Evernote, Onenote)
 - evaluation of digital resources (Google forms and sections)
06.-08. Editing and creating digital content
 - cloud and interactive documents
(text and spreadsheet editors - Google, Microsoft, Jupyter)
 - work with pdf documents, e-books and videos
(Kami, Google books, Screencasting)
09. - 10. Organization, protection and sharing of digital content
 - modern LMS and cloud storage
(Google Classroom, Microsoft team, Google Drive, Dropbox)
 - time management (Google Calendar)
11.-13. Digital communication and cooperation

- collaborative interactive whiteboards (Jamboard, Whiteboard)
- online presentations and online meetings
(Google presentations, Powerpoint, Google meet, Microsoft teams)

Recommended literature:
1. Carretero Gomez, S., Vuorikari, R. and Punie, Y., DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, Luxembourg, 2017, ISBN 978-92-79-68006-9, https://www.ecdl.sk/ 2. Bruff, D. (2019). Intentional Tech: Principles to Guide the Use of Educational Technology in College Teaching (1st edition). Morgantown: West Virginia University Press. 3. Baker, Y. (2020). Microsoft Teams for Education. Amazon Digital Services. 4. Miller, H. (2021). Google Classroom + Google Apps: 2021 Edition. Brentford: Orion Edition Limited.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 81

A	B	C	D	E	FX
45.68	3.7	7.41	0.0	43.21	0.0

Provides: doc. RNDr. Jozef Hanč, PhD.

Date of last modification: 26.01.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ LKSp/13	Course name: Summer Course-Rafting of TISA River

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

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:
Completion: passed
Condition for successful course completion:
- active participation in line with the study rule of procedure and course guidelines
- effective performance of all tasks: carrying a canoe, entering and exiting a canoe, righting a canoe, paddling

Learning outcomes:
Content standard:
The student demonstrates relevant knowledge and skills in the field, which content is defined in the course syllabus and recommended literature.
Performance standard:
Upon completion of the course students are able to meet the performance standard and:
- implement the acquired knowledge in different situations and practice,
- implement basic skills to manipulate a canoe on a waterway,
- determine the right spot for camping,
- prepare a suitable material and equipment for camping.

Brief outline of the course:
Brief outline of the course:
1. Assessment of difficulty of waterways
2. Safety rules for rafting
3. Setting up a crew
4. Practical skills training using an empty canoe
5. Canoe lifting and carrying
6. Putting the canoe in the water without a shore contact
7. Getting in the canoe
8. Exiting the canoe
9. Taking the canoe out of the water
10. Steering
a) The pry stroke (on fast waterways)
b) The draw stroke

| 11. Capsizing |
| 12. Commands |

Recommended literature:
1. JUNGER, J. et al. Turistika a športy v prírode. Prešov: FHPV PU v Prešove. 2002. ISBN 8080680973.
Internetové zdroje:
1. STEJSKAL, T. Vodná turistika. Prešov: PU v Prešove. 1999.
Dostupné na: https://ulozto.sk/tamhle/UkyxQ2lYF8qh/name/Nahrane-7-5-2021-v-14-46-39#!
ZGDjBGR2AQtkAzVkAzLkLJWuLwWxZ2ukBRLjnGqSomICMmOyZN==

Course language:
Slovak language

Notes:

Course assessment
Total number of assessed students: 209

abs	n
37.32	62.68

Provides: Mgr. Dávid Kaško, PhD.

Date of last modification: 29.03.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.

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 ECTS credits: 2

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

Course level: I.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
 Total number of assessed students: 631

A	B	C	D	E	FX
43.11	31.22	16.8	5.07	1.74	2.06

Provides: Mgr. Katarína Petríková, PhD.

Date of last modification: 20.06.2022

Approved: prof. Mgr. Jaroslav Hofierka, PhD., doc. RNDr. Stanislav Lukáč, PhD.