COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ PFAJAKA/07	**Course name:** Academic English

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

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

Conditions for course completion:
kontrolný písomný test, aktivita na hodine
záverečný písomný test
povolené max. 2 absencie
stupnica hodnotenia: A 93-100, B 86-92, C 79-85, D 72-78, E 65-71, FX 64 a menej
aktivita na hodine
predmet končí hodnotením, t.j. povolený je 1 opravný test

Learning outcomes:
Osvojenie si a rozvíjanie užitočných techník akademického písomného ako aj ústneho prejavu so zameraním na rozvoj jazykových kompetencií študenta, na upevňovanie a rozvíjanie všetkých jazykových zručností na stredne pokročilej až pokročilej úrovni ovládania jazyka (B2/C1 podľa Spoločného európskeho referenčného rámca pre jazyky). Predmet kladie dôraz na používanie akademickej angličtiny v akademickom prostredí.

Brief outline of the course:
Akademická angličtina a jej charakteristiky
Čítanie odborných článkov, analýza, parafrázovanie
Spájacie slová v akademickom písaní
Formálna a neformálna angličtina a ich črty
Vyjadrovanie príčiny, následku v akademickom jazyku
Čítanie odbornej publikácie, analýza, parafrázovanie
Slovotvorba v anglickom jazyku- predpony a prípony
Ako prezentovať v angličtine
Parafrázovanie a definovanie
Ako písať abstrakt
Slovosled v akademickom diškurze

Recommended literature:
Seal B.: Academic Encounters, CUP, 2002
T. Armer :Cambridge English for Scientists, CUP 2011
M. McCarthy M., O´Dell F. - Academic Vocabulary in Use, CUP 2008
Zemach, D.E, Rumisek, L.A: Academic Writing, Macmillan 2005

Olsen, A. : Active Vocabulary, Pearson, 2013
www.bbclearningenglish.com
Cambridge Academic Content Dictionary, CUP, 2009

Course language:

Notes:

Course assessment
Total number of assessed students: 292

A	B	C	D	E	FX
29.11	22.26	16.1	11.3	8.22	13.01

Provides: PaedDr. Gabriela Bednáriková

Date of last modification: 06.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ ATA/14	**Course name:** Algebra and theoretical arithmetic

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 3 / 1 **Per study period:** 42 / 14
Course method: present

Number of credits: 4

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Obtain knowledge about sets N, Z, Q and R, about their axiomatic building-up, the operations and the orderigs on them.

Brief outline of the course:

Recommended literature:

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 27

A	B	C	D	E	FX
48.15	18.52	14.81	14.81	3.7	0.0

Provides: doc. RNDr. Matúš Harminc, CSc.

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ ALP/06	**Course name:** Alternative Pedagogy

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: 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: 54

A	B	C	D	E	FX
85.19	12.96	0.0	0.0	0.0	1.85

Provides: Mgr. Ján Juščák, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/AFS/05	**Course name:** Antique Philosophy and Present Times

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., 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: 30

A	B	C	D	E	FX
83.33	6.67	6.67	0.0	3.33	0.0

Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof., Doc. PhDr. Peter Nezník, CSc.

Date of last modification: 26.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ AIM/10	**Course name:** Application of ICT into mathematics teaching

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚMV/DDMa/14

Conditions for course completion:
two tests elaborated on the computer, solving problems from worksheets
final project

Learning outcomes:
To learn students standard work procedures with the basic types of mathematical softvare systems and to provide examples and ideas on the possibility of using these software systems in mathematics teaching. To develop the knowledge and skills of students to use investigation and modelling in the digital environment for mathematical problems solving. Develop creative and evaluation abilities of students allow to prepare mathematics lessons with effective and meaningful use of modern technologies.

Brief outline of the course:
Possibilities of using numerical and graphical tools of spreadsheet to solve mathematical problems. Use of dynamic geometry systems in solving geometry problems, examples of their use in the implementation of constructivist approaches to mathematics teaching. Mathematical modelling and solving of problems in a CAS environment. The use of modern IT for active acquisition of knowledge in mathematics teaching.

Recommended literature:
M. Černochová et al.: Využití počítače při vyučování, Portál, 1998.
S. Lukáč: Multimédiá a počítačom podporované učenie sa v matematike, PF UPJŠ Košice 2001.
J. Vaníček: Počítačové kognitivní technologie ve výuce geometrie. Univerzita Karlova v Praze, 2009.
Journals MFI, MIF a Obzory matematiky, fyziky a informatiky.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 159

A	B	C	D	E	FX
39.62	26.42	14.47	11.95	7.55	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ AST/13	**Course name:** Astronomy

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

Number of credits: 4

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
Test; seminar paper.
Oral exam with preparation; 3 questions within the curriculum presented during the course.

Learning outcomes:
Become acquainted with basic knowledge about the structure and evolution of the universe.

Brief outline of the course:
The stars, their basic properties, structure and evolution. Structure and distribution of matter in the universe. Cosmological theories, formation, evolution and future of the universe.

Recommended literature:
1. Carroll, B. W., Ostlie, D. A., An Introduction to Modern Astrophysics, Addison-Wesley Publishing Company, Reading, Massachusetts, 1996.
2. Contopoulos, D. Kotsakis, Cosmology, the structure and evolution of the Universe, Springer, 1984
3. Narlikar, J.V., An Introduction to Cosmology, Cambridge University Press, Cambridge, 2002

Course language:

Notes:

Course assessment
Total number of assessed students: 17

A	B	C	D	E	FX
76.47	17.65	5.88	0.0	0.0	0.0

Provides: doc. RNDr. Rudolf Gális, PhD.

Date of last modification: 31.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ MT/09	**Course name:** Class Management

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: 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: 351

A	B	C	D	E	FX
58.4	30.48	8.55	1.14	0.28	1.14

Provides: PaedDr. Renáta Orosová, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/KK/07	**Course name:** Communication and Cooperation

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

Course level: 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: 281

abs	n	z
98.22	1.78	0.0

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KGER/ NJKK/07	**Course name:** Communication Competence in the German Language

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

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 42

A	B	C	D	E	FX
57.14	14.29	7.14	4.76	14.29	2.38

Provides: Mgr. Eva Černáková, PhD.

Date of last modification: 05.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

Conditions for course completion:
ontrolný písomný test, aktivita na hodine
záverečný písomný test
stupnica hodnotenia A 93-100, B 86 - 92, C 79-85, D 72-78, E 65-71, FX menej ako 64
Povolené max. 2 absencie počas semestra
predmet končí hodnotením, možnosť jedného opravného testu

Learning outcomes:
Uplatnenie a aktívne používanie svojich teoretických vedomostí v praktických komunikačných situáciách. Zdokonalenie jazykových vedomostí a zručností študenta, rečovej, pragmatickej a vecnej kompetencie, predovšetkým zlepšujú komunikáciu, schopnosťprijímať a formulovať výpovede, efektívne vyjadrovať svoje myšlienky ako aj orientovať sa v obsahovom pláne výpovede. Precvičovanie rečových intencií kontaktných (napr. pozdravy, oslovenia, pozvanie, oslovenie), informatívnych (napr. získavanie a podávanie informácií, vyjadrenie priestorových a časových vzťahov), regulačných (napr. prosba, poďakovanie, zákaz, pochvala, súhlas, nesúhlas) a hodnotiacich (napr. vyjadrenie vlastného názoru, stanoviska, želania, emócií). Výsledkom budovania praktickej jazykovej kompetencie majú byť vedomosti a zručnosti zodpovedajúce požiadavkám a kritériám dokumentu Spoločný európsky referenčný rámec pre vyučovanie jazykov - úroveň B2.

Brief outline of the course:
Rodina, jej formy a problémy
Vyjadrovanie pocitov a dojmov
Dom, bývanie a budúcnosť
Formy a dialekty v anglickom jazyku
Život v meste a na vidieku
Kolokácie a idiomy, zaužívané slovné spojenia
Prázdniny a sviatky vo svete
Životné prostredie a ekológia
Výnimky zo slovosledu
Frázové slovesá a ich použitie
Charakteristiky neformálneho diškurzu

Recommended literature:

McCarthy M., O'Dell F.: English Vocabulary in Use, 1994
Misztal M.: Thematic Vocabulary, 1998
Fictumova J., Ceccarelli J., Long T.: Angličtina, konverzace pro pokročilé, Barrister and Principal, 2008
Peters S., Gráf T.: Time to practise, Polyglot, 2007
www.bbclearningenglish.com
Jones L.: Communicative Grammar Practice, CUP, 1985
Alexander L.G.: Longman English Grammar, Longman, 1988

Course language:

Notes:

Course assessment

Total number of assessed students: 174

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

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

Date of last modification: 06.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/ PFAJGA/07	**Course name:** Communicative Grammar in English

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

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II., N

Prerequisities:

Conditions for course completion:
kontrolná písomná práca,
záverečná písomná práca
stupnica hodnotenia: A 93-100, B 86-92, C 79-85, D 65-71, 64 a menej - FX
aktivita na hodinách, povolené 2 absencie
predmet je ukončený hodnotením, možnosť jedného opravného testu

Learning outcomes:
Identifikovanie a odstránenie najfrekventovanejších gramatických chýb v ústnom prejave, ako aj v písomnom styku. Rozvoj jazykových kompetencií študenta so zameraním na funkcie gramatiky anglického jazyka v každodennej interakcii, v komunikačnom akte na stredne pokročilej úrovni ovládania jazyka (B2 podľa Spoločného európskeho referenčného rámca pre jazyky).

Brief outline of the course:
Zvieratá a rastliny na zemi
Zločin a trest
Cestovanie po mori a vzduchom
Jedlá a reštaurácie, národná kuchyňa
Vzdelanie na vysokých školách
História a viera
Vybrané problémy anglickej výslovnosti, gramatiky (nepriama reč, slovotvorba, predložkové väzby, anglická syntax, kondicionály v angličtine a slovnej zásoby príslušného zamerania
Vybrané funkcie praktického odborného jazyka potrebné na prácu s odborným textom

Recommended literature:
Misztal M.: Thematic Vocabulary, 1994
McCarthy, O'Dell: English Vocabulary in Use, 1994
Alexander L.G.: Longman English Grammar, Longman, 1988
Jones I. - Communicative Grammar Practice, CUP, 1992
Vince M.: Macmillan Grammar in Context, Macmillan, 2008
www.bbclearningenglish.com
Gráf T., Peters S.: Time to practise, Polyglot, 2007

Course language:

Notes:

Course assessment
Total number of assessed students: 378

A	B	C	D	E	FX
39.42	18.25	17.2	8.73	5.82	10.58

Provides: PaedDr. Gabriela Bednáriková

Date of last modification: 06.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ FEP1/04	**Course name:** Computer Aided School Physical Experiment

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

Number of credits: 4

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

Course level: II.

Prerequisities:

Conditions for course completion:
test 30 points
active participation 10 points
project (development of mathematical model, videomeasurement and physical experiment) 60 points
The final assessment is based on the sum of partial results

Learning outcomes:
After the course student gains an overview about the possible use of digital technologies to support active learning in physics. He gains skills to use and develop activities on measuring data with the help of datalogging, measuring on picture and viderecording and modeling physical processes. Student is able to implement such activities in physics teaching to support active learning and conceptual understanding.

Brief outline of the course:
The aim of the course is to present the use of digital technologies to enhance active learning in physics with the help of datalogging, videomeasurement and modelling tools. Mathematical modelling is based on dynamical modeling of physical phenomena. Within the course students carry out computer-based experiments and videomeasurements and create corresponding models. The activities involves selected topics of secondary schools physics (mechanics, electricity, magnetism, thermal physics, ideal gas laws, optics and acoustics).

Recommended literature:
[1]Koubek, V., Pecen, I.: Fyzikálne experimenty a modely v školskom mikropočítačom podporovanom laboratóriu, Univerzita Komenského, Bratislava, 1999
[2]Príručka COACH
[3]http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 32

A	B	C	D	E	FX
46.88	46.88	6.25	0.0	0.0	0.0

Provides: doc. RNDr. Zuzana Ješková, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SPPb/10	**Course name:** Continuous teaching practice I
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 3t **Course method:** present	
Number of credits: 1	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities: ÚMV/SSM/10	
Conditions for course completion:	
Learning outcomes: Enable students to gain first practical experience in teaching mathematics to apply theoretical knowledge in specific teaching situations, to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 145	
abs	n
100.0	0.0
Provides: doc. RNDr. Dušan Šveda, CSc., RNDr. Ingrid Semanišinová, PhD.	
Date of last modification: 14.02.2014	
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MPPb/03	**Course name:** Continuous Teaching Practice I

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

Number of credits: 1

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Verbal: trainer-teacher assessment of student's outcomes in analysis of the lesson
Written evaluation of the work of the student trainer-teacher.

Learning outcomes:
Enable students to gain first practical experience in teaching physics to apply theoretical knowledge in specific teaching situation to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.

Brief outline of the course:
The practice lasts three weeks at primary or at secondary school. During practice students visit lessons of Physics and assist teacher during lessons. They teach at least five lessons of Physics stand-alone. Required is also an analysis of lessons with a trainer-teacher. Students are required to participate in school life and in the activities organized by the school.

Recommended literature:
J. Janovič a kol.: Didaktika fyziky, MFF UK Bratislava, 1990
J. Janovič a kol.: Vybrané kapitoly didaktiky fyziky, MFF UK Bratislava, 1999
E. Kašpar a kol.: Didaktika fyziky, SPN Praha, 1978
Current curriculum and Physics textbooks in Slovakia.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 53

abs	n
100.0	0.0

Provides: RNDr. Ľudmila Onderová, PhD., PhDr. Silvia Kontírová, PhD., Mgr. Mária Sarková, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SPPc/10	**Course name:** Continuous teaching practice II
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 4t **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities: ÚMV/SPPb/10	
Conditions for course completion:	
Learning outcomes: Enable students to gain first practical experience in teaching mathematics to apply theoretical knowledge in specific teaching situations, to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 142	
abs	n
100.0	0.0
Provides: doc. RNDr. Dušan Šveda, CSc., RNDr. Ingrid Semanišinová, PhD.	
Date of last modification: 14.02.2014	
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚFV/ MPPc/03	**Course name:** Continuous Teaching Practice II

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: Per study period: 4t
Course method: present

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚFV/MPPb/03 and ÚFV/DF1a/04 or ÚFV/DF1a/10

Conditions for course completion:
Verbal assessment of outcomes by trainer-teacher during the analysis of the lesson.
A written evaluation of the student work by the trainer-teacher.

Learning outcomes:
Enable students to gain first practical experience in teaching physics to apply theoretical knowledge in specific teaching situation to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.

Brief outline of the course:
The practice lasts four weeks at primary or at secondary school. During practice students visit lessons of Physics and assist teacher during lessons. They teach18 lessons of Physics stand-alone. Required is also an analysis of lessons with a trainer-teacher. Students are required to participate in school life and in the activities organized by the school.

Recommended literature:
J. Janovič a kol.: Didaktika fyziky, MFF UK Bratislava, 1990
J. Janovič a kol.: Vybrané kapitoly didaktiky fyziky, MFF UK Bratislava, 1999
E. Kašpar a kol.: Didaktika fyziky, SPN Praha, 1978
Učebnice fyziky pre ZŠ, SŠ a G
J. Janovič a kol.: Didaktika fyziky, MFF UK Bratislava, 1990
J. Janovič a kol.: Vybrané kapitoly didaktiky fyziky, MFF UK Bratislava, 1999
E. Kašpar a kol.: Didaktika fyziky, SPN Praha, 1978
Physics textbooks for primary and secondary school

Course language:
Slovak

Notes:

Course assessment Total number of assessed students: 51	
abs	n
100.0	0.0
Provides: PhDr. Silvia Kontírová, PhD., Mgr. Mária Sarková, PhD., RNDr. Ľudmila Onderová, PhD.	
Date of last modification: 18.02.2014	
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SPPd/10	**Course name:** Continuous teaching practice III
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 3t **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 4.	
Course level: II.	
Prerequisities: ÚMV/SPPc/10	
Conditions for course completion:	
Learning outcomes: Enable students to gain first practical experience in teaching mathematics to apply theoretical knowledge in specific teaching situations, to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 92	
abs	n
100.0	0.0
Provides: doc. RNDr. Dušan Šveda, CSc., RNDr. Ingrid Semanišinová, PhD.	
Date of last modification: 14.02.2014	
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/MPPd/05	**Course name:** Continuous Teaching Practice III

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

Number of credits: 2

Recommended semester/trimester of the course: 4.

Course level: II.

Prerequisities: (ÚFV/MPPc/03 or ÚFV/MPPc/15) and ÚFV/DF1b/04 or ÚFV/DF1b/10

Conditions for course completion:
Verbal assessment of outcomes by trainer-teacher during the analysis of the lesson.
A written evaluation of the student work by the trainer-teacher.

Learning outcomes:
Enable students to gain first practical experience in teaching physics to apply theoretical knowledge in specific teaching situation to develop their teaching skills. To acquaint students with the atmosphere and the organization of school.

Brief outline of the course:
The practice lasts three weeks at primary or at secondary school. During practice students visit lessons of Physics and teach lessons of Physics stand-alone. Required is also an analysis of lessons with a trainer-teacher. Students are required to participate in school life and in the activities organized by the school.

Recommended literature:
Physics textbooks for primary and secondary school

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 58

abs	n
100.0	0.0

Provides: PhDr. Silvia Kontírová, PhD., Mgr. Mária Sarková, PhD., RNDr. Ľudmila Onderová, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KAE/ KAp/03	**Course name:** Cultural Anthropology

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: 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: 126

A	B	C	D	E	FX
84.92	14.29	0.79	0.0	0.0	0.0

Provides: Mgr. Adriana Jesenková, PhD.

Date of last modification: 29.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/RSEI/03	**Course name:** Development of Social and Emotional Intelligence
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 2 **Per study period:** 28 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: 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: 319

abs	n
97.18	2.82

Provides: Mgr. Lucia Hricová
Date of last modification: 04.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DDMa/14	**Course name:** Didactics of mathematics

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

Number of credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Continuous assessment - 60% of the total assessment, exam - 40% of the total assessment.

Learning outcomes:
Master the basic principles and methods of teaching of mathematics at primary and secondary schools. Gain knowledge of the various ways of teaching specific topics of school mathematics.

Brief outline of the course:
Subject of Didactics of Mathematics, the development of mathematics and mathematics education.
Aims and objectives of mathematics teaching
Planning in mathematics teaching
Logical and didactical curriculum analysis
Determination of learning objectives
Didactical principles, methods of mathematics teaching
Assessment of learning outcomes, the creation of didactic tests
Mathematical problems
Construction numeric fields, Theory of elementary functions, synthetic and analytic geometry

Recommended literature:
[1] M.Hejný a kol.: Teorie vyučovania matematiky, SPN Blava 1989, (in slovak)
[2] L.Frantíková,K.Hončarivová,O.Kopanev: Didaktika matematiky, UPJŠ 1982 (in slovak)
[3] R.Fischer,G.Malle: Člověk a matematika, SPN Bratislava 1992 (in slovak)
[4] Polya, G.: How to solve it, Princeton University Press, 1957.
[5] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001. (in czech)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 78

A	B	C	D	E	FX
29.49	43.59	19.23	5.13	2.56	0.0

Provides: doc. RNDr. Dušan Šveda, CSc.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DDMb/14	**Course name:** Didactics of mathematics

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

Number of credits: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚMV/DDMa/14

Conditions for course completion:
Seminar paper - 40% of the total score.
Written exam - 40% of the total score.
Homework - 20% of the total score.
Evaluation A - at least 90% points,
evaluation B - at least 80%,
evaluation C at least 70%,
evaluationD at least 60%,
evaluationE rating of at least 50% of the points.
Credits shall not be granted to a student who receives less than 50% of the points.

Learning outcomes:
Students become familiar with some mathematical theories of education. They will acquire different teaching methods of selected topics of school mathematics. Become familiar with the potential use of history of mathematics in teaching. Students will be prepared to work in the educational process, focusing on the creative application of knowledge in mathematics.

Brief outline of the course:
Student learning process.
Language of mathematics, enactive iconic and symbolic representation.
Using history of mathematics in the teaching mathematics.
Students' learning difficulties and their possible causes.
Teaching mathematical proofs.
Combinatorics, probability, statistics.
Calculus.
Developing mathematical creativity. Motivation.

Recommended literature:
[1] M.Hejný a kol.: Teoria vyučovania matematiky, SPN Blava 1989.
[2] Hejný, M., Kuřina, F.: Dítě, škola a matematika: Konstruktivistické přístupy k vyučování. Portál, Praha 2001.
[3] Fischer, R., Malle, G.: Človek a matematika, SPN Bratislava 1992.
[4] Učebnice a zbierky úloh pre stredné a základné školy.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 92

A	B	C	D	E	FX
82.61	13.04	3.26	1.09	0.0	0.0

Provides: RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DF1a/10	**Course name:** Didactics of Physics I

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

Number of credits: 5

Recommended semester/trimester of the course: 2.

Course level: 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: 31

A	B	C	D	E	FX
61.29	25.81	6.45	6.45	0.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DF1b/10	**Course name:** Didactics of Physics II

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

Number of credits: 5

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities: ÚFV/DF1a/04 or ÚFV/DF1a/10

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 26

A	B	C	D	E	FX
88.46	3.85	3.85	3.85	0.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ DFR/10	**Course name:** Differential equations

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 3 / 1 **Per study period:** 42 / 14
Course method: present

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Continuous assessment is taken the form of two tests during the semester. Final evaluation is given by continuous assessment (40%), written and oral part of the exam (30% and 30%).

Learning outcomes:
Theory of differential equations is one of the fundamental areas of mathematical analysis. It has numerous applications in various fields of science and technology. The main objective of this course is to familiarize students with the basics of the theory of ordinary differential equations and their systems, and methods for solving certain types of differential equations and systems. We consider them as possible mathematical models of real situations.

Brief outline of the course:
Basic concepts. Elementary methods for solving and applications of the first order differential equations. The existence and uniqueness of solutions to Cauchy problem for differential equations of the first order, the n-th order and for differential systems. The relationship between differential equations of the n-th order and systems. Linear differential equations of the n-th order and linear differential systems - the local and global theorem on the existence and uniqueness
of solutions to Cauchy problem, basic properties of solutions, fundamental system of solutions, structure of general solution, Lagrange method of variation of constants, linear differential equations and systems with constant coefficients. Reduction of the order of differential equations. Euler differential equations. Elimination method for solving the systems of differential equations.

Recommended literature:
1. L. Kluvánek, I. Mišík, M. Švec: Matematika II, SVTL, Bratislava, 1961 (in Slovak).
2. J. Eliaš, J. Horváth, J. Kajan: Zbierka úloh z vyššej matematiky 3, Alfa, Bratislava, 1980 (in Slovak).
3. S. J. Farlow: An introduction to differential equations and their applications, Dover Publications, New York, 2006.
4. W. Kohler, L. Johnson: Elementary differential equations with boundary value problems, Pearson Education, Boston, 2006.
5. M. Tenenbaum: Ordinary differential equations, Dover Publications, New York, 1985.
6. J. C. Robinson: An introduction to ordinary differential equations, Cambridge University Press, Cambridge, 2004.

7. J. Polking, A. Boggess, D. Arnold: Differential equations, Prentice Hall (Pearson), Upper Saddle River, 2006.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 406

A	B	C	D	E	FX
17.24	11.58	21.18	16.75	26.11	7.14

Provides: RNDr. Ivan Mojsej, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DPP1/14	**Course name:** Diploma Project I

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

Number of credits: 1

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
regular consultations with diploma thesis supervisor about the progress of diploma project development, design of investigation plan

Learning outcomes:
Student has studied the theoretical background, formulates research questions, has designed investigation plan, has presented first results, eventually.

Brief outline of the course:
Development of diploma project

Recommended literature:
Recommended literature that is included in the diploma thesis assignments
Regulations for diploma thesis preparation
template for diploma thesis

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 4

abs	n
100.0	0.0

Provides:

Date of last modification: 17.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2a/14	**Course name:** Diploma Project I
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 1	
Recommended semester/trimester of the course: 1.	
Course level: II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language: Slovak	
Notes:	
Course assessment Total number of assessed students: 68	

abs	n
100.0	0.0

Provides:
Date of last modification: 14.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DPP2/14	**Course name:** Diploma Project II

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
regular consultaions with diploma thesis supervisor about the progress of diploma project development and about the investigation
regular consultations
study of available resources connected with the diploma thesis assignments
first results

Learning outcomes:
Student understands the methods of investigation and he gains first results.

Brief outline of the course:
Work on the diploma project with regard to the assignemnts of the diploma thesis

Recommended literature:
Recommended literature that is included in the diploma thesis assignments
Regulations for diploma thesis preparation
template for diploma thesis

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 4

abs	n
100.0	0.0

Provides:

Date of last modification: 17.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2b/14	**Course name:** Diploma Project II
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 2.	
Course level: II.	
Prerequisities: ÚMV/DPP2a/14	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language: Slovak	
Notes:	
Course assessment Total number of assessed students: 69	

abs	n
98.55	1.45

Provides:
Date of last modification: 14.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DPP2c/14	**Course name:** Diploma Project III
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 3.	
Course level: II.	
Prerequisities: ÚMV/DPP2b/14	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language: Slovak	
Notes:	
Course assessment Total number of assessed students: 58	

abs	n
100.0	0.0

Provides:
Date of last modification: 14.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DPP3/14	**Course name:** Diploma Project III

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
regular consultations with diploma thesis supervisor about the progress of diploma project development and about the project results

Learning outcomes:
Student has enough knowledge to prepare a theoretical part of the diploma thesis and for practical part based on the problem analysis and drawing conclusions.

Brief outline of the course:
Work on the project with regard to the diploma thesis assignments

Recommended literature:
Recommended literature that is included in the diploma thesis assignments
Regulations for diploma thesis preparation
template for diploma thesis

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 8

abs	n
100.0	0.0

Provides:

Date of last modification: 17.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/DSD/04	**Course name:** Diploma Seminar

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

Course level: 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: 2

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

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DSD2/08	**Course name:** Diploma Seminar

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: 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: 4

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

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/DPOU/14	**Course name:** Diploma Thesis and its Defence

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

Number of credits: 15

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Preparation and submission of diploma thesis in printed and electronic form.
Presentation of diploma thesis results and its defence in front of examination board.

Learning outcomes:
Knowledge and skills connected with selected problem analysis and presentation of diploma thesis results in front of experts.

Brief outline of the course:
Preparation and submission of diploma thesis to central registration system.
Printed version for reviewing.
Presentation of diploma thesis results and answers to the questions of reviewrs.
Discussion on the content of diploma thesis and answers to the questions of examination board members.

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 7

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

Provides:

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ DGE/10	**Course name:** Dynamic geometry

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

Number of credits: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
test using a computer, didactic project and final exam

Learning outcomes:
To acquire commands and the concept of dynamic constructions in the program Geogebra and Cabri 3D. To learn to use a dynamic geometry environment for experimentation with geometric objects and their attributes and the investigation of invariant properties of geometric figures and relationships between objects in triangles, quadrilaterals, and conics basic solid figures.

Brief outline of the course:
Constructions and exploration of the properties of triangles, quadrilaterals, circles, and their use in solving construction tasks. Menelaus' theorem, Ceva's theorem, Varignon's theorem, Ptolemy's theorem, cyclic and tangential quadrilaterals, the centre point of polygons. The use of transformations in solving tasks. Constructions of conics and their use in solving problems. Mathematical modeling and exploration of functional dependencies, solving problems for searching of extremes. The cross positions of linear geometric shapes in space, cuts of solid figures, intersetion lines and solid figures. Analysis of the possibilities of using dynamic geometry environment to support active learning of mathematics.

Recommended literature:
1. Vaníček, J.: Počítačové kognitivní technologie ve výuce geometrie. Univerzita Karlova v Praze, 2009.
2. King, J., Schattschneider, D.: Geometry Turned On! Dynamic Software in Learning, Teaching, and Research. The Mathematical Association of America, 1997.
3. De Villiers, M., D.: Rethinking proof with the Geometer's Sketchpad. Key Curriculum Press, 2003.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 11

A	B	C	D	E	FX
63.64	27.27	0.0	9.09	0.0	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/APV/09	**Course name:** Educational Action Research

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: 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: 29

A	B	C	D	E	FX
86.21	13.79	0.0	0.0	0.0	0.0

Provides: prof. Volodymyr Starosta, DrSc.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ SL1/05	**Course name:** Education-related Legislation

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

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: 337

A	B	C	D	E	FX
39.17	31.16	16.91	4.15	1.78	6.82

Provides: PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Nováková, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ ZMPPV/12	**Course name:** Fundamentals of Educational and Psychological Research Methodology

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: 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: 372

A	B	C	D	E	FX
20.97	27.42	22.85	20.43	7.53	0.81

Provides: PhDr. Anna Janovská, PhD., Mgr. Zuzana Nováková, PhD., Mgr. Mária Bačíková, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KAE/ ZET2/07	**Course name:** Fundamentals of Ethics 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 credits: 3

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: KAE/ZE1/07

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 50

A	B	C	D	E	FX
94.0	6.0	0.0	0.0	0.0	0.0

Provides: PhDr. Andrea Klimková, PhD.

Date of last modification: 29.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ VBF2/08	**Course name:** General Biophysics II

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

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
To provide information about the object, significance and role of biophysics in science. The main emphasis will be given on the understanding of the principles determining the structure and function of the most important biological structures (nucleis acids, proteins, biomembranes) as well as on the thermodynamics and kinetics of selected chemical and biophysical processes.

Brief outline of the course:
The definition of biophysics and its role in the science. Intra- and inter-molecular interactions in biological systems. Function and structure of the important biomacromolecules (nucleic acids, proteins, biomembranes, sugars). Conformational transitions in biopolymers: helix-coil transition in DNA, denaturation of proteins, phase transitions in biomembranes.
Thermodynamics of biological processes. Gibbs energy and chemical equilibrium, chemical potential, binding constants of the ligand-macromolecule intractions, cooperativity of the binding between biological important molecules, membrane potential.
Kinetics of the chemical and biophysical processes. The principles of chemical kinetics, enzymatic reactions, inhibition of the enzymes, membrane transport, introduction to the pharmacokinetics.
Cell biophysics. The basic bioenergetic processes, oxidative phosphorylation, photosynthesis. Mechanisms of regulations and control processes in cells-the basic principles.
Medicinal biophysics. Biophysical principles of selected diagnostic and therapeutical methods.
Radiation and environmental biophysics. The influence of physico-chemical factors of the environment on the living systems.

Recommended literature:
1. M. B. Jackson, Molecular and cellular biophysics, Cambridge University Press, 2006.
2. M. Daune, Molecular biophysics-Structures in motion, Oxford University Press, 2004.
3. R. Glaser, Biophysics, Springer Verlag, 2001.
4. M.V. Volkenštein, Biofizika, Nauka, Moskva 1988.
5. W.Hoppe and W. Lohmann, Biophysics, Springer Verlag, 1988.
6. K.E.van Holde, W.C. Johnson and P. Shing Ho, Principles of

physical biochemistry, Simon and Schuster, Prentice Hall, 1998.
7. D.G. Nichols and S.J. Ferguson, Bioenergetics 3, Academic Press, Elsevier Science Ltd., 2002.

Course language:

Notes:

Course assessment
Total number of assessed students: 9

A	B	C	D	E	FX
22.22	44.44	11.11	11.11	11.11	0.0

Provides: doc. Mgr. Daniel Jancura, PhD.

Date of last modification: 10.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ VPD/03	**Course name:** General Pedagogy and Didactics

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

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: 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: 958

A	B	C	D	E	FX
10.65	21.71	25.99	21.82	10.33	9.5

Provides: PaedDr. Renáta Orosová, PhD., Mgr. Zuzana Nováková, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ TRV1/00	**Course name:** General Theory of Relativity

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

Number of credits: 3

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
In the eighth week the test of the mathematical problem.
Individual report at the end of the semester.
Oral examination.

Learning outcomes:

Brief outline of the course:
Overview of the special theory of relativity (STR). Uniformly accelerated motion in STR. Local principle of equivalence - Eotvos experiment. Tensor calculus in pseudoriemann's metric. Einstein equations of gravitational field. Schwarzschild's solution for spherically symetric field. Experimental tests of the general theory of relativity. Black holes. Solutions for homogeneous and isotropic distribution of mass. Cosmological applications.

Recommended literature:
1. Hughston, L. P., Tod K. P.: An Introduction to General Relativity, London Mathenatical Society Student Texts 5. CUP, Cambridge, 1990.
2. Wald, R.W.: General Relativity, University of Chicago Press, Chicago, 1984.
3. Misner, C.W., Thorne, K.S., Wheller, J.A.: Gravitation, Freeman, San Francisco, 1973.
4. Landau L.D., Lifshitz E.M.: The classical theory of fields. Addison- Wesley, Reading, Mass., USA, 1977.

Course language:
1. Slovak,
2. English

Notes:

Course assessment
Total number of assessed students: 70

A	B	C	D	E	FX
94.29	4.29	1.43	0.0	0.0	0.0

Provides: prof. RNDr. Andrej Bobák, DrSc., RNDr. Marián Jurčišin, PhD.

Date of last modification: 31.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ GEO2b/10	**Course name:** Geometry II

Course type, scope and the method:
Course type: Lecture / Practice
Recommended course-load (hours):
Per week: 3 / 2 **Per study period:** 42 / 28
Course method: present

Number of credits: 6

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
To obtain knowledge about affine, isometric, and similarity transformations and their properties.

Brief outline of the course:
1. Quadric surfaces (circular and general quadric surfaces)
2. Affine transformations (associated transformation, matrix representation, affinities, fixed points and lines, pseudo-reflections)
3. Isometric transformations (matrix representation, isometries, classification in the plane, composiion of reflections)
4. Similarity transformations (matrix representation, similarities, homothety, composition of homotheties)
5. Geometry of circles (the power of a point with respect to a circle, radical axis of two circles, pencils of circles)

Recommended literature:
1. M. Sekanina et al, Geometry 2, SPN, 1988 (in slovak).
2. O. Šedivý et al, Geometry 2, SPN, 1987 (in slovak).
3. H.S.M. Coxeter, Introduction to geometry, Wiley, 1989.
4. J.T. Smith, Methods of geometry, Wiley, 2000.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 355

A	B	C	D	E	FX
10.42	10.14	19.72	19.72	22.25	17.75

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

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ GEO2c/10	**Course name:** Geometry III

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities: ÚMV/GEO2b/10

Conditions for course completion:

Learning outcomes:
A new look on the classical geometric results.

Brief outline of the course:
1. Points and lines connected with a triangle (Menelaus's theorem, Ceva's theorem, points of interest, the incircle and excircles, pedal triangles, Euler line, nine-point circle)
2. Properties of circles (the power of a point with respect to a circle, radical axis of two circles, Simson lines, Ptolemy's theorem, Morley's theorem)
3. Collinearity and concurrence (quadrangles, Varignon's parallelogram, cyclic quadrangles, Brahmagupta's formula, Napoleon triangles)
4. Focal properties of regular conics (Dandelin spheres, tangents and directrix of a regular conic)
5. Inversion with respect to a circle (basic properties, composition of inversions and homotheties)

Recommended literature:
1. H.S.M. Coxeter, S.L. Greitzer, Geometry revisited, MAA, 1967.
2. R.A. Johnson, Advanced Euclidean geometry, Dover Publ., 2007.
3. A.V. Akopyan, A.A. Zaslavsky, Geometry of conics, AMS, 2007.
4. D.A. Brannan, M.F. Esplen, J.J. Gray, Geometry, Cambridge Univ. Press, 2007.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 45

A	B	C	D	E	FX
20.0	26.67	35.56	8.89	8.89	0.0

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

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KGER/ NJKG/07	**Course name:** Grammar in the German Language Communication

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

Number of credits: 2

Recommended semester/trimester of the course:

Course level: I., II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 46

A	B	C	D	E	FX
54.35	13.04	8.7	4.35	10.87	8.7

Provides: Dr. rer. pol. Michaela Kováčová

Date of last modification: 05.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DEJ1/99	**Course name:** History of Physics

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities:

Conditions for course completion:
written test and thesis
exam

Learning outcomes:
Basic facts in the history of physics.

Brief outline of the course:
Evolution of knowledge before Galileo. Evolution of physics within the mechanical picture of the world. Evolution and limits of classical physics, phase of breakthrough in physics. Origin and evolution of the theory of relativity. Quantum physics and prospects of further evolution of physics and their application. Contemporary state of physical research and its application in technology, natural sciences and philosophy. Position of physics in our society.

Recommended literature:
1. R.Zajac, J.Chrapan: Dejiny fyziky, skriptá, MFF UK, Bratislava, 1982.
2. V.Malíšek: Co víte o dějinách fyziky, Horizont, Praha, 1986.
3. I.Kraus, Fyzika v kulturních dějinách Evropy, Starověk a středověk, Nakladatelství ČVUT, Praha, 2006.
4. A.I.Abramov: Istoria jadernoj fiziky, KomKniga, Moskva, 2006.
5. L.I.Ponomarev: Pod znakom kvanta, Fizmatlit, Moskva, 2006.
6. I.Kraus, Fyzika v kulturních dějinách Evropy, Od Leonarda ke Goethovi, Nakladatelství ČVUT, Praha, 2007.
7. I.Kraus, Fyzika od Thaléta k Newtonovi, Academia, Praha, 2007.
8. I.Štoll, Dějiny fyziky, Prometheus, Praha, 2009.
9. www-pages.
10.Brandt S., The harvest of a century, Discoveries of modern physics in 100 episodes, Oxford, 2009.

Course language:

Notes:

Course assessment
Total number of assessed students: 11

A	B	C	D	E	FX
63.64	18.18	18.18	0.0	0.0	0.0

Provides: prof. RNDr. Stanislav Vokál, DrSc.

Date of last modification: 11.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/ KDF/05	**Course name:** Chapters from History of Philosophy of 19th and 20th Centuries (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 credits: 2

Recommended semester/trimester of the course: 2.

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: 10

A	B	C	D	E	FX
50.0	20.0	10.0	0.0	10.0	10.0

Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof.

Date of last modification: 26.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/FVp/04	**Course name:** Chapters from Philosophy of Education

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

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: 3

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

Provides: doc. PhDr. Pavol Tholt, PhD., mim.prof.

Date of last modification: 26.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/SDaM/09	**Course name:** Child and Adolescent Sociology

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

Number of credits: 2

Recommended semester/trimester of the course: 4.

Course level: 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: 704

A	B	C	D	E	FX
49.01	29.83	15.48	3.69	1.56	0.43

Provides: PhDr. Zlatica Buocová, CSc., Mgr. Alexander Onufrák, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB10/14	**Course name:** IB10 - Medzinárodný certifikát ECo-C
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB11/14	**Course name:** IB11 - Medzinárodný certifikát ECDL
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 14	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB12/14	**Course name:** IB12 - Používanie, administrácia a vývoj v systéme SAP
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 54	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB1/14	**Course name:** IB1 - Etika v biomedicínskych vedách pre zdravotnícku prax
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB2/14	**Course name:** IB2 - Právne minimum – súkromnoprávne aspekty
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB3/14	**Course name:** IB3 - Právne minimum – verejnoprávne aspekty
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB4/14	**Course name:** IB4 - Projektový manažment
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 20	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: R UPJŠ/ IB5/14	**Course name:** IB5 - Manažérska ekonomika

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

Number of credits: 16

Recommended semester/trimester of the course:

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:

Date of last modification: 11.08.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB6/14	**Course name:** IB6 - Riešenie konfliktných a krízových situácií v školskej praxi
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB7/14	**Course name:** IB7 - Štatistika pre prax
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 16	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: R UPJŠ/ IB8/14	**Course name:** IB8 - Environmentálne aspekty záťaže životného prostredia

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

Number of credits: 16

Recommended semester/trimester of the course:

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:

Date of last modification: 11.08.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: R UPJŠ/ IB9/14	**Course name:** IB9 - Medzinárodný certifikát TOEFL
Course type, scope and the method: **Course type:** **Recommended course-load (hours):** **Per week: Per study period:** **Course method:** present	
Number of credits: 17	
Recommended semester/trimester of the course:	
Course level: I., I.II., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 0

abs	n	neabs
0.0	0.0	0.0

Provides:
Date of last modification: 11.08.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KFaDF/IH1/03	**Course name:** Idea Humanitas 1 (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 credits: 2

Recommended semester/trimester of the course: 2.

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: 9

A	B	C	D	E	FX
55.56	11.11	0.0	11.11	22.22	0.0

Provides: Doc. PhDr. Peter Nezník, CSc.

Date of last modification: 26.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPE/ MPPa/12	**Course name:** Interim Pedagogical-Psychological Training
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week: Per study period:** 36s **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course: 1.	
Course level: 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: 691

abs	n
99.86	0.14

Provides: PhDr. Beáta Gajdošová, PhD., PaedDr. Renáta Orosová, PhD., Mgr. Ján Juščák, PhD., Mgr. Zuzana Nováková, PhD.
Date of last modification: 04.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ UNT1/99	**Course name:** Introduction to Low Temperature Physics

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

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: II., III.

Prerequisities:

Conditions for course completion:
Successful passing final exam

Learning outcomes:
The course addresses fundamental concepts of physics of solid state. The students acquire information on the state of the art knowledge of selected structural, thermal, electric and magnetic properties of crystalline systems. Beside the standard materials an attention will be paid also to nonconventional systems. Basic experimental methods appropriate for studies of the mentioned properties will be overviewed.

Brief outline of the course:
Crystal structure. Wave diffraction and the reciprocal lattice. Crystal binding. Lattice vibrations, phonons. Fermi gases and liquids. Energy bands. Fermi surfaces. Superconductivity. Superconducting materials. Nonconventional superconductivity. Fundamental magnetic orders. Strong electron correlations.

Recommended literature:
1. Ch. Kittel: Introduction to Solid State Physics, 8th edition, John Wiley and sons, New York 2005.
2. H.Ibach, H.Luth: Solid-State Physics, Springer, Berlin 1996.
3. R. Kužel et al.: Úvod do fyziky kovú II, SNTL, Praha 1985.
4. P.Grosse: Svobodnyje elektrony v tverdych telach, Mir, Moskva, 1982
5. M Tinkham: Introduction to Superconductivity, 2-nd edition, Mc Graw- Hill, New York 1996.
6. S. Takács a L.Cesnak.: Supravodivosť, Alfa , Bratislava 1979
7. K. Fossheim, A. Sudbo, Superconductivity. Physics and Applications, John Wiley & Sons, Chichester, 2004.
8. James F. Annett, Superconductivity, Superfluids and Condensates, Oxford University Press, Oxford, UK.

Course language:
Slovak, English

Notes:

Course assessment
Total number of assessed students: 22

A	B	C	D	E	FX	N	P
81.82	9.09	0.0	0.0	0.0	0.0	0.0	9.09

Provides: Dr.h.c. prof. RNDr. Alexander Feher, DrSc.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ DPU/14	**Course name:** Magister Thesis and its Defense

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

Number of credits: 15

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 4

A	B	C	D	E	FX
75.0	25.0	0.0	0.0	0.0	0.0

Provides:

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/MDM/14	**Course name:** Mathematics and didactics of mathematics

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚMV/GEO2b/10 and ÚMV/DDMa/14 and ÚMV/DDMb/14 and ((ÚMV/GEO2c/10 and ÚMV/ATA/14) or (ÚMV/GEO2c/10 and ÚMV/PSTb/10) or (ÚMV/GEO2c/10 and ÚMV/DFR/10) or (ÚMV/ATA/14 and ÚMV/PSTb/10) or (ÚMV/ATA/14 and ÚMV/DFR/10) or (ÚMV/PSTb/10 and ÚMV/DFR/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: 12

A	B	C	D	E	FX
25.0	33.33	16.67	25.0	0.0	0.0

Provides:

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ FEP1/07	**Course name:** Microcomputer Based Science Laboratory

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

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
test 30 points
active participation 10 points
project (development of mathematical model, videomeasurement and physical experiment) 60 points
The final assessment is based on the sum of partial results

Learning outcomes:
After the course student gains an overview about the possible use of digital technologies to support active learning in science. He gains skills to use and develop activities on measuring data with the help of datalogging, measuring on picture and viderecording and modeling natural processes. Student is able to implement such activities in science teaching to support active learning and conceptual understanding.

Brief outline of the course:
The aim of the course is to present the use of digital technologies to enhance active learning in science with the help of datalogging, videomeasurement and modeling tools. Mathematical modeling is based on dynamical modeling of natural phenomena. Within the course students carry out computer-based experiments, videomeasurements and measurement on picture and create corresponding models. The activities involve selected topics of secondary schools science. The emphasize is put on the methods of implementation of the activities with regard to active students ´ learning.

Recommended literature:
[1]Koubek, V., Pecen, I.: Fyzikálne experimenty a modely v školskom mikropočítačom podporovanom laboratóriu, Univerzita Komenského, Bratislava, 1999
[2]Príručka COACH
[3]http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 34

A	B	C	D	E	FX
44.12	44.12	11.76	0.0	0.0	0.0

Provides: doc. RNDr. Zuzana Ješková, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MDT06/06	**Course name:** Modern Didactical Technics

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

Number of credits: 3

Recommended semester/trimester of the course: 1., 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: 76

A	B	C	D	E	FX
97.37	1.32	0.0	0.0	0.0	1.32

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MFDF/08	**Course name:** Modern Physics from Didactics Point of View

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

Number of credits: 4

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

Course level: II.

Prerequisities:

Conditions for course completion:
Active participation; completing reading assigments; realization of a chosen modern physics project with a practical application.
Exam and defending own project

Learning outcomes:
1. Achieving better conceptual understanding and getting an integrated view on fundamental ideas of contemprorary modern physics, which every future physicist and physics teacher should have. Emphasis is not on abstract mathematical methods, but on using most recent knowledge and tools of Physics Education Research - computer modeling of physical phenomena and employing only elementary algebra and calculus.
2. Getting physical intuition and experience dealing with practical applications of modern physics.

Brief outline of the course:
1. Fundamental ideas of modern mechanics: symmetry, event, worldlline, spacetime diagram, principle of least action, conservation laws; practical applications.
2. Fundamental ideas of relativity: principle of relativity, space-time interval, conservation of momenergy, metrics, principle of maximal aging; practical applications.
3. Fundamental ideas of quantum mechanics: probability amplitude, principle of democracy of histories, rules for amplitudes, propagator, Schrödinger's equation, stationary state, Feynman's diagrams; practical applications.

Recommended literature:
1. Moore, T. A, Six Ideas That Shaped Physics - Unit Q: Particles Behave Like Waves, 2nd ed., Mc Graw Hill, Boston, 2003
2. Feynman, R.P., QED - The Strange theory of Light and Matter, Princeton University Press, Princeton, 1985
3. Hey, A., Walters, P., New Quantum Universe, Cambridge University Press, 2003
4. Taylor, E. F, Wheeler, J. A., Space-time Physics-Introduction to Special Relativity, 2nd ed., W.H. Freeman and Company, New York, 1992
5. Thorne, K. S., Black Holes and Time Warps, W.W. Norton, New York, 1995
6. Relevant resources from recent journal literature (American Journal of Physics, European Journal of Physics, Scientific American...)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 26

A	B	C	D	E	FX
26.92	30.77	23.08	15.38	3.85	0.0

Provides: Doc. RNDr. Jozef Hanč, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ NJ//13	**Course name:** Naval Yachting
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 36 **Per study period:** 504 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 2

abs	n
100.0	0.0

Provides: doc. Mgr. Rastislav Feč, PhD.
Date of last modification: 15.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ NET1/04	**Course name:** Nontraditional View on Selected Problems of General Physics I

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: 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: 96

A	B	C	D	E	FX
73.96	16.67	2.08	5.21	1.04	1.04

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/NFY1/03	**Course name:** Nontraditional View on Selected Problems of General Physics II

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

Number of credits: 3

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

Course level: 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: 60

A	B	C	D	E	FX
75.0	15.0	8.33	0.0	0.0	1.67

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ JZP1/03	**Course name:** Nuclear Radiation in Environment

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

Number of credits: 3

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities:

Conditions for course completion:
term project
examination

Learning outcomes:
Basic knowledge of the nuclear radiation in the environment and consequences for health.

Brief outline of the course:
Sources of radiation. Interaction of radiation with matter. Dosimetry units. Biological effects of ionizing radiation and radiological protection. Natural sources of radiation. Man-made sources of radionuclides.Application of radionuclides.
Nuclear weapons. Nuclear plants. The risk of accidents. Nuclear waste. Reprocessing. Radiation and health.

Recommended literature:
1. Cooper J.R, Randle K., Sokhi R.S.: Radioactive releases in the environment, J.Wiley &Sons, Ltd. 2003
2. R. L. Murray, Nuclear Energy, An Introduction to th Concepts, Systems, and Applications of Nuclear Processes, 6th edition,Elsevier, 2009
3. P.A.Tipler, R.A.Llewellyn: Modern Physics, 6th Edition,W.H.Freeman and Company, 2012

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 44

A	B	C	D	E	FX
54.55	20.45	9.09	9.09	2.27	4.55

Provides: RNDr. Janka Vrláková, PhD.

Date of last modification: 11.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ MAFV/06	**Course name:** Out of School Physics Educational Activities

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

Number of credits: 4

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

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 6

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

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ PES1/04	**Course name:** Pedagogical software

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

Number of credits: 4

Recommended semester/trimester of the course:

Course level: II.

Prerequisities:

Conditions for course completion:
Assessment of preliminary assignments - a review of selected educational software, specification of own educational software.
In final exam students will demonstrate an overview of types, evaluation and life cycle of educational software in written form and they will present and defend their own final project - educational interactive hypertext project (containing motivation, interactive simulation, collection of tasks, vocabulary, autotest), respectively an educational game (labyrinth, pexeso, quiz, crossword, interactive story, simulation) including methodological guide for teachers.including methodological guide for teachers.

Learning outcomes:
- To acquire an overview of the types of educational software, its evaluation, process development and use in education.
- To create your own educational interactive hypertext, respectively an educational game including methodological guide for teachers.

Brief outline of the course:
Typology of educational software, its evaluation, process development and use in education. Creation of educational interactive hypertext (containing motivation, interactive simulation, collection of tasks, vocabulary, autotest), respectively an educational game (labyrinth, pexeso, quiz, crossword, interactive story, simulation) including methodological guide for teachers.

Recommended literature:
LACHS, V. Making Multimedia in the Classroom. London : RoutledgeFalemer, 2000. ISBN 0415216842.
GÖBEL, S. et al. Technologies for Interactive Digital Storytelling and Entertainment (LNCS 4326). Darmstadt : Springer, 2006. ISBN 3540499342.
SCHURMANN, E. M., PARDI, W. J. Dynamické HTML v akci. Praha : Computer Press, 2001. ISBN 807226401X.
KOSEK, J. Téměř vše o WWW. [online] Dostupné na internete: <http://www.kosek.cz>.

Course language:

Notes:

Course assessment
Total number of assessed students: 94

A	B	C	D	E	FX
23.4	28.72	26.6	8.51	10.64	2.13

Provides: RNDr. Ľubomír Šnajder, PhD.

Date of last modification: 03.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/PP/14	**Course name:** Pedagogy and Psychology

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: KPE/VPD/03 and KPPaPZ/PPGS/04 or KPPaPZ/PaSPP/09

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 133

A	B	C	D	E	FX
16.54	30.83	28.57	21.05	1.5	1.5

Provides:

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/ PVC/09	**Course name:** Pedagogy of Leisure Time

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: 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: 222

A	B	C	D	E	FX
75.68	16.67	6.31	0.0	1.35	0.0

Provides: Mgr. Ján Juščák, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Dek. PF UPJŠ/PPZ/13	**Course name:** Personality Development and Key Competences for Success on a Labour Market

Course type, scope and the method:
Course type: Practice
Recommended course-load (hours):
Per week: Per study period: 14s
Course method: present

Number of credits: 2

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

Course level: 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: 39

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

Provides: RNDr. Peter Stefányi, PhD.

Date of last modification: 17.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ FPK1/07	**Course name:** Phase Transitions and Critical Phenomena

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Examination

Learning outcomes:
To acquaint students with based problems of the phase transitions and critical phenomena.

Brief outline of the course:
Thermodynamics of phase transitions. Classification of phase transitions. Critical phenomena, universality. Microscopic models of the magnetic phase transitions. Ising model in one and two dimensions. Mean field theory of the Ising model. Landau theory of phase transitions.

Recommended literature:
1. Stanley H.G.: Introduction to Phase Transitions and Critical Phenomena, Clarendon Press Oxford, Oxford, 1971.
2. Reichl L.E.: A Modern Course in Statistical Physics, University of Texas Press, Austin, 1980.
3. Plischke M., Bergersen B.: Equilibrium Statistical Physics, World Scientific, Singapore, 1994.
4. Kadanoff L.P.: Statistical Physics, Statistics, Dynamics and Renormalization, World Scientific, Singapore, 2000.

Course language:
1. Slovak,
2. English

Notes:

Course assessment
Total number of assessed students: 87

A	B	C	D	E	FX
65.52	9.2	9.2	11.49	4.6	0.0

Provides: prof. RNDr. Andrej Bobák, DrSc.

Date of last modification: 31.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ FYU1/10	**Course name:** Physical Problems

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

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: 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: 31

A	B	C	D	E	FX
58.06	29.03	9.68	3.23	0.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD., doc. RNDr. Zuzana Ješková, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/FDFA/14	**Course name:** Physics and Didactics of Physics

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: (ÚFV/DF1b/10 and ÚFV/TRS/03 and ÚFV/SEV/10)

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:

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/FDFB/14	**Course name:** Physics and Didactics of Physics

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: (ÚFV/DF1b/10 and ÚFV/VKL/07 and ÚFV/FPK1/07)

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
50.0	50.0	0.0	0.0	0.0	0.0

Provides:

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/FDFC/14	**Course name:** Physics and Didactics of Physics

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: (ÚFV/DF1b/10 and ÚFV/SJF1/03 and ÚFV/VBF2/08)

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	100.0	0.0	0.0	0.0	0.0

Provides:

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ FDFD/14	**Course name:** Physics and Didactics of Physics

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

Number of credits: 1

Recommended semester/trimester of the course:

Course level: II.

Prerequisities: ÚFV/DF1b/10 and (ÚFV/NFY1/07 or ÚFV/NFY1/03) and ÚFV/MFDF/08

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 4

A	B	C	D	E	FX
25.0	0.0	75.0	0.0	0.0	0.0

Provides:

Date of last modification: 17.03.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/FMJ/06	**Course name:** Physics of Magnetic Phenomena

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

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: I., II., III.

Prerequisities:

Conditions for course completion:
Exam

Learning outcomes:
The aim of the subject is to give overview to the physical mechanism of the magnetization process.

Brief outline of the course:
Basic units for magnetic material characterization. Magnetic materials. Magnetic anisotropies. Magnetic parameters. Domain structure. Magnetization processes. Dynamics of magnetization processes.

Recommended literature:
1; B.D. Cullity and C.D. Graham, Introduction to magnetic materials, Willey-IEEE Press, 2007
2; S. Chikazumi, Physics of Ferromagnetism, Claredon Press, 1997
3; C.W. Chen, Magnetism and metallurgy of soft magnetic materials, Dover Publ.,1986

Course language:
slovak or english

Notes:

Course assessment
Total number of assessed students: 44

A	B	C	D	E	FX	N	P
65.91	4.55	2.27	2.27	0.0	0.0	0.0	25.0

Provides: doc. RNDr. Rastislav Varga, DrSc.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ PSTb/10	**Course name:** Probability and statistics II

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

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities:

Conditions for course completion:
To obtain in two written tests during the semester at least 50%. Total evaluation based on written tests and oral exam.

Learning outcomes:
To provide a grounding in statistical methods and their applications for real life problems.

Brief outline of the course:
Random vectors, their distributions and characteristics. Joint and marginal distributions. Correlation and regression, properties of correlation coefficient. Random sample, sampling distributions and characteristics. Some important statistics and their distributions. Point estimators and their properties. Maximum likelihood method. Interval estimates, confidence interval construction.Testing of statistical hypothesis, critical region, level of significance. Methods for searching optimal critical regions. Some important parametric and nonparametric tests.

Recommended literature:
1. Skřivánková V.: Probability and statistics, UPJŠ, Košice, 2009.
2. Dekking at al.: A modern Introduction to Probability and Statistics. Springer, 2005.
3. Sincich T.: Statistics by example, Dellen Publishing Company, New Jersey, 1990.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 149

A	B	C	D	E	FX
17.45	19.46	20.13	24.83	12.75	5.37

Provides: doc. RNDr. Valéria Skřivánková, CSc., RNDr. Martina Hančová, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/PPGS/04	**Course name:** Psychology and Educational Psychology

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

Number of credits: 5

Recommended semester/trimester of the course: 1.

Course level: 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: 790

A	B	C	D	E	FX
10.13	17.22	21.39	22.03	24.81	4.43

Provides: Prof. PhDr. Oľga Orosová, CSc., PhDr. Karolína Barinková, PhD., Mgr. Lucia Hricová, PhDr. Anna Janovská, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

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:** 36 **Per study period:** 504 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 7	

abs	n
57.14	42.86

Provides: Mgr. Alena Buková, PhD., Mgr. Agata Horbacz, PhD.
Date of last modification: 15.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ DEX/04	**Course name:** Selected Demonstration Experiments

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Seminar work – a project dealing with hands-on experiments and their role in Physics teachig.
Oral examination

Learning outcomes:
The goal of the course is to develop pedagogic skills and creativity of further Physics teachers through non-traditional physical experiments.

Brief outline of the course:
The aim of the lecture is to show a lot of non-traditional physical experiments which can help students understand physical phenomena and find their connection with everyday life. The experiments are mainly hands-on ones which can be performed with simple tools and don't require any special equipment. The experiments are carried out by students themselves. Through these experiments students are able to gain practical skills, develop experimental habits and verify their theoretical knowledge.

Recommended literature:
1. Onderová Ľ.:Netradičné experimenty vo vyučovaní fyziky, MC Prešov,2002
2. Lorbeer,G.L.,Nelsonová, L.W.: Fyzikální pokusy pro děti, Portál, Praha, 1998
3. Kostič, Ž.: Medzi hrou a fyzikou, Alfa, Bratislava, 1971
4. Kireš, M., Onderová, Ľ.: Fyzika každodenného života v experimentoch a úlohách, JSMF Bratislava 2001, ISBN 80-7097-446-X
5. http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:

Notes:

Course assessment
Total number of assessed students: 27

A	B	C	D	E	FX
62.96	14.81	14.81	0.0	7.41	0.0

Provides: RNDr. Ľudmila Onderová, PhD.

Date of last modification: 18.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ VKL/07	**Course name:** Selected Topics from Condensed Mater Physics

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

Number of credits: 4

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:
Explanation of the nature of physical phenomena which appears in macroscopic quantum systems, in systems with magnetic ordering and also in the interaction between electromagnetic radiation and matter. Discussion of physical principles of radiospectroscopic techniques and neutron scattering applied for the investigation of properties of matter. Introduction in modern trends of electron microscopy and applications of the experimental techniques in applied solid state physics.

Brief outline of the course:
Macroscopic quantum effects: Bose-Einstein condensation. Non-Fermi liquid behaviour of electrons. Unconventional superconductivity. Physics in dimensions smaller than 3. Magnetic ordering:Ferromagnetism. Antiferromagnetism. Ferrimagnetism. Parasitic ferromagnetism. Miktomagnetism and spin glasses. Spectroscopy:Electron paramagnetic resonance. Nuclear magnetic resonance. Neutron scattering and scan tunelling spectroscopy
Modern trends in electron microscopy (transmission and scanning EM): Electron microprobe analysis: WDX spectrometer, EDX spectrometer, Auger electron spectrometer. Self-emission microscopy. Convergent beam diffraction. Using synchrotron X- ray in material science.

Recommended literature:
Encyclopedia of Chemical Physics and Physical Chemistry, Vol. 2, edited by J. H. Moore and N.D.Spencer, Institute of Physics Publishing, Bristol, 2001.
S. Amelincks, D.van Dyck, J. van Landyut, Electron Microscopy – Principles and Fundamentals, VCH, 1997.
M.H. Loretto, Electrom beam analysis of materials. Springer, 2002.
S. Chikazumi: Physics of Magnetism, J. Willey and Sons, Inc. New York, London, Sydney, 1997.
J. F. Annett: Superconductivity, Superfluids and Condensates, Oxford University Press, New York, USA, 2004
Scientific journals.

Course language:
slovak, english

Notes:

Course assessment
Total number of assessed students: 78

A	B	C	D	E	FX
46.15	19.23	15.38	10.26	8.97	0.0

Provides: RNDr. Erik Čižmár, PhD., prof. RNDr. Pavol Sovák, CSc., Dr.h.c. prof. RNDr. Alexander Feher, DrSc., prof. RNDr. Peter Kollár, DrSc.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ VMA/10	**Course name:** Selected topics on mathematical analysis

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

Number of credits: 3

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
Final evaluation is given by continuous assessment, written and oral part of the exam.

Learning outcomes:
Extend knowledge of improper integrals, development functions into infinite series obtained in the basic course of mathematical analysis.

Brief outline of the course:
Improper and parametric integral. Fourier's series.

Recommended literature:
I. Kluvánek, L. Mišík, M. Švec, Matematika II; SVTL, Bratislava, 1959.
2. J.C. Bowman, Honours Calculus, Math.117/118, University of A. Edmond, Canada, 2010.
3. S. Lang, Undegraduate Analysis, Springer, 1997.

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 53

A	B	C	D	E	FX
16.98	5.66	26.42	18.87	26.42	5.66

Provides: Mgr. Jozef Kiseľák, PhD., doc. RNDr. Ondrej Hutník, PhD.

Date of last modification: 26.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ SHM/10	**Course name:** Seminar on history of mathematics

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Homework, presentation on the chosen topic during the seminar.
More than 91 points - evaluation of A.
81-90 points - evaluation of B.
71-80 points - rating C.
61-70 points - evaluation of D.
51-60 points - evaluation of E.
Less than 50 points - FX evaluation.

Learning outcomes:
Students get an overview of the history of the development of certain mathematical disciplines and selected terms and about parallel between phylogenesis and ontogenesis of mathematical thinking.

Brief outline of the course:
Mathematics in Early Civilizations. Greek Mathematics. Mathematics in the Near and Far East (Arabia, China, India). Medieval European Mathematics. The Renaissance of Mathematics. The Beginning of Modern Mathematics.

Recommended literature:
Burton, D. M.: The History of Mathematics: An Introduction. McGraw−Hill, 2007.
Devlin, K.: Jazyk matematiky. Dokořán, 2002 (in czech)
Kolman, A.: Dejiny matematiky ve starověku. Academia, Praha, 1968 (in slovak)
Juškevič, A. P.: Dejiny matematiky ve středověku. Academia, Praha 1977 (in slovak)
Znám,Š. a kol.: Pohľad do dejín matematiky. Alfa, Bratislava, 1986 (in slovak)
Konforovič, A.G.: Významné matematické úlohy, SPN Praha, 1989 (in slovak)

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 111

A	B	C	D	E	FX
80.18	5.41	9.01	2.7	2.7	0.0

Provides: RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/SSM/10	**Course name:** Seminar on school mathematics

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
written tests, seminar paper
final test

Learning outcomes:
To teach students various methods of solving mathematical problems of primary and secondary schools. Point out the different approaches to solving specific problems in mathematics teaching at primary and secondary schools.

Brief outline of the course:
Basic knowledge of five topics in school mathematics determined SEP. Solving of equations, inequations and their systems. Properties of elementary functions. Sequences and number series. Properties and construction of geometric figures. Geometric transformations. Propositional logic and mathematical proofs. The use of statistical methods for data processing.

Recommended literature:
[1] Hejný, M. et al., Dvacet pět kapitol z didaktiky matematiky. Charles university in Prague, 2004.
[2] Kopka, J., Hrozny problémů ve školské matematice, Univerzita J. E. Purkyně, Ústí nad Labem 1999.
[3] Textbooks and collections of tasks of mathematics at PS and SS.

Course language:
slovak

Notes:

Course assessment
Total number of assessed students: 144

A	B	C	D	E	FX
34.72	12.5	22.22	18.06	12.5	0.0

Provides: doc. RNDr. Stanislav Lukáč, PhD.

Date of last modification: 24.04.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚMV/ SMO/10	**Course name:** Seminar to mathematical olympiad

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: I., II.

Prerequisities:

Conditions for course completion:
Individual problem solving during seminars and homework.
More than 91 points - evaluation of A.
81-90 points - evaluation of B.
71-80 points - rating C.
61-70 points - evaluation of D.
51-60 points - evaluation of E.
Less than 50 points - FX evaluation.

Learning outcomes:
Students become familiar with solving problems from mathematical olympiads and mathematical competitions. They acquire theoretical basics necessary to lead mathematical group of talented children.

Brief outline of the course:
Number theory.
Equations, inequations, inequalities.
Word problems.
Planimetry.
Stereometry.
Combinatorics. Pigeonhole principle. Combinatorial geometry. Probability.
Math games. Interesting problems.

Recommended literature:
Brožúry z edície Škola mladých matematikov. (in slovak)
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: 128

A	B	C	D	E	FX
67.19	12.5	10.16	7.03	3.13	0.0

Provides: RNDr. Ingrid Semanišinová, PhD.

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ PSP1a/05	**Course name:** School Physical Experiments I

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

Course level: II.

Prerequisities:

Conditions for course completion:
continuous written tests
being active in practises
final oral examination

Learning outcomes:
To gain basic skills with demonstration and physics interpretation of school physics experiments belonging to the subject matter in Physics classes at basic schools and high schools. To become familiar with didactic procedures related to using school experiments in different phases of the educational process.

Brief outline of the course:
The practices are aimed at practical realization and physics interpretation of school demonstration experiments from selected topics of the physics subject matter for basic-school and high-school pupils. The emphasis is on familiarizing with teaching aids and didactic devices used in performing school physics experiments and on getting basic skills with their utilization in physics teaching.

Recommended literature:
1.Kašpar,E.,Vachek,J.: Pokusy z fyziky na středních školách, I.díl, SPN Praha,1967
2.Koubek, V. a kol.: Školské pokusy z fyziky, SPN Bratislava, 1992
3.http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 58

A	B	C	D	E	FX
34.48	25.86	22.41	8.62	5.17	3.45

Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., RNDr. Ľudmila Onderová, PhD.

Date of last modification: 18.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ PSP1b/04	**Course name:** School Physical Experiments II

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
continuous written tests
being active in practises
final oral examination

Learning outcomes:
Students should gain knowledge and broaden skills necessary for understanding methods, techniques and physical interpretations of all types of school physical experiments that are parts of the subject matter in physics classes at basic and high schools.

Brief outline of the course:
The practises are aimed at practical realization and physics interpretation of school demonstration experiments from selected topics of the physics subject matter for basic- and high-school pupils and their convenient incorporation into educational process. The emphasis is on familiarizing with teaching aids and didactic devices used in performing school physics experiments and on extending skills with their utilization in physics teaching.

Recommended literature:
1.Onderová, Ľ., Kireš, M., Ješková, Z., Degro, J.: Praktikum školských pokusov z fyziky II., PF UPJŠ
2.Kašpar, E., Vachek, J.: Pokusy z fyziky na středních školách, I. díl, SPN Praha, 1967
3.Žouželka,, J., Fuka, J.: Pokusy z fyziky na středních školách, II. díl, SPN Praha, 1971
4.http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 56

A	B	C	D	E	FX
44.64	12.5	33.93	5.36	1.79	1.79

Provides: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., RNDr. Ľudmila Onderová, PhD.
Date of last modification: 18.02.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ VPSP/04	**Course name:** School Physics Experiments III

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

Number of credits: 3

Recommended semester/trimester of the course: 3.

Course level: II.

Prerequisities:

Conditions for course completion:
continuous written tests
active work in practises
final oral examination

Learning outcomes:
The students gain skills and competencies to the own and effective organisation and solving of experimental tasks, use of activities enhanced by digital technologies for physics teaching at lower and upper secondary level.

Brief outline of the course:
The practices are aimed at practical realization and physics interpretation of different forms of selected school demonstration. The emphasis is on creative utilization of teaching aids and didactic devices and computer-aided experiments.

Recommended literature:
Šucha, J.: Metodická príručka pre rozkladný transformátor, Učebné pomôcky B.Bystrica, 1973
Demkanin, P. a kol. Počítačom podporované prírodovedné laboratórium, FMFI UK Bratislava, 2006, ISBN:80-89186-10-6
Ješková, Z., a kol. Využitie informačných a komunikačných technológií v predmete Fyzika pre stredné školy : učebný materiál - modul 3. - 1. vyd. - Košice : Elfa, 2010. - 242 s., ISBN 978-80-8086-146-9
Duľa, I. a kol. Využitie informačných a komunikačných technológií v predmete Fyzika pre základné školy : učebný materiál - modul 3. - 1. vyd. - Košice : Elfa, 2010. - 240 s., ISBN 978-80-8086-154-4
Ješková, Z., Degro, J., Onderová, Ľ.: Počítačom podporovaná výučba fyziky, PF UPJŠ, Košice, ISBN 80 - 7097 - 451 -6
http://physedu.science.upjs.sk/sis/fyzika/experimenty/index.htm

Course language:
Slovak

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: doc. RNDr. Zuzana Ješková, PhD., doc. RNDr. Marián Kireš, PhD., RNDr. Ľudmila Onderová, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/SPVKE/07	**Course name:** Social-Psychological Training of Coping with Critical Life Situations

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 101

abs	n	z
97.03	2.97	0.0

Provides:

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ TRS/03	**Course name:** Special Theory of Relativity

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

Number of credits: 3

Recommended semester/trimester of the course: 1.

Course level: I., II.

Prerequisities: ÚFV/TEP1/03

Conditions for course completion:
Final examination

Learning outcomes:
To acquaint students with principles of a special theory of relativity.

Brief outline of the course:
Galilean transformation and Galilean principle of relativity. Ether's hypothesis. Michelson experiment. Einstein's principles of the special theory of relativity. Lorentz transformation and its physical consequences. Interval and light cone. Proper time. Minkowski's space-time. Mathematical apparatus of special relativity. Relativistic electrodynamics. Relativistic mechanics.

Recommended literature:
1. Greiner W.: Classical Mechanics-Point Particles and Relativity, Springer-Verlag, New York, 2004.
2. Goldstein H., Poole Ch., Safko J.: Classical Mechanics, Addison Wesley, San Francisco, 2002.
3. Landau L.D., Lifšic E.M.: The Classical Theory of Fields, Pergamon Press, Oxford, 1975.

Course language:
1. Slovak,
2. English

Notes:

Course assessment
Total number of assessed students: 158

A	B	C	D	E	FX
51.9	22.78	13.29	6.33	5.06	0.63

Provides: prof. RNDr. Andrej Bobák, DrSc.

Date of last modification: 31.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of credits: 2

Recommended semester/trimester of the course: 1.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 7160

abs	n	neabs
88.42	7.82	3.76

Provides: PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc., doc. Mgr. Rastislav Feč, PhD., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., PaedDr. Milena Švedová, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško

Date of last modification: 15.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of credits: 2

Recommended semester/trimester of the course: 2.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 6364

abs	n	neabs
84.95	11.06	3.99

Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., Mgr. Peter Bakalár, PhD., PaedDr. Milena Švedová, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško

Date of last modification: 15.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of credits: 2

Recommended semester/trimester of the course: 3.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 4191

abs	n	neabs
89.91	4.72	5.37

Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, doc. PaedDr. Ivan Uher, PhD., PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško

Date of last modification: 15.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

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

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

Number of credits: 2

Recommended semester/trimester of the course: 4.

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

Prerequisities:

Conditions for course completion:

Learning outcomes:

Brief outline of the course:

Recommended literature:

Course language:

Notes:

Course assessment
Total number of assessed students: 3363

abs	n	neabs
86.14	6.78	7.08

Provides: PaedDr. Imrich Staško, doc. Mgr. Rastislav Feč, PhD., doc. PhDr. Ivan Šulc, CSc., Mgr. Ivan Matúš, PhD., Mgr. Zuzana Küchelová, PaedDr. Milena Švedová, PhD., Mgr. Peter Bakalár, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Agata Horbacz, PhD., Mgr. Marek Valanský, Mgr. Dávid Kaško

Date of last modification: 15.01.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ SVKD/04	**Course name:** Student Scientific Conference

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
presentation of results of studnets´ research work at Students´ scientific conference

Learning outcomes:
Student gains experience and skills in processing and presentation of results of his research work.

Brief outline of the course:
Presentation of results of studnets´ research work at Students´ scientific conference.

Recommended literature:
Based on the recommendations of supervisor

Course language:
Slovak

Notes:

Course assessment
Total number of assessed students: 42

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

Provides: doc. RNDr. Zuzana Ješková, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚMV/ SVK/10	**Course name:** Students scientific conference

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

Number of credits: 4

Recommended semester/trimester of the course:

Course level: I., II.

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: 47

A	B	C	D	E	FX
97.87	2.13	0.0	0.0	0.0	0.0

Provides:

Date of last modification: 14.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ SJF1/03	**Course name:** Subnuclear Physics

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

Number of credits: 5

Recommended semester/trimester of the course: 2.

Course level: II.

Prerequisities:

Conditions for course completion:
written test and thesis
exam

Learning outcomes:
Preview of basic characteristics and classification of elementary particles, their structures, theoretical description and experimental technique.

Brief outline of the course:
Historical introduction to the particle physics. The forces in nature. Leptons and hadrons. Strange particles. Mass and neutrino oscillations. Antiparticles.Stable baryons and resonances.Classification of particles.The eightfold way. Symmetrics and conservation laws. Structure of hadrons.Quarks and gluons. Quantum chromodynamics - theory of quarks.Unification of weak and electromagnetic forces. Standard model.Beyond the standard model. Cosmology, particle physics and Big-Bang. Subnuclear physics and experimental techniques.

Recommended literature:
1. Close F.: The Cosmic Onion - Quarks and the Nature of the Universe, Oxford, 1990.
2. Hajko V. and team of authors, Physics in experiments, Bratislava, 1997.
3. Kapitonov I.M., Vvedenije v fiziku jadra i chastic (Russian), Moscow, 2004.
4. Brandt S., The harvest of a century, Discoveries of modern physics in 100 episodes, Oxford, 2009.

Course language:

Notes:

Course assessment
Total number of assessed students: 49

A	B	C	D	E	FX
20.41	16.33	16.33	18.37	20.41	8.16

Provides: prof. RNDr. Stanislav Vokál, DrSc.

Date of last modification: 11.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

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:** 36 **Per study period:** 504 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 63

abs	n
41.27	58.73

Provides: Mgr. Peter Bakalár, PhD.
Date of last modification: 15.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ KP/12	**Course name:** Survival Course
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 36 **Per study period:** 504 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	

Course assessment
Total number of assessed students: 185

abs	n
41.62	58.38

Provides: Mgr. Marek Valanský
Date of last modification: 15.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPPaPZ/UPR/03	**Course name:** The Art of Aiding by Verbal Exchange

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

Number of credits: 2

Recommended semester/trimester of the course: 2., 4.

Course level: 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: 47

A	B	C	D	E	FX
87.23	4.26	2.13	2.13	0.0	4.26

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 04.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ VMV1/04	**Course name:** Using Multimedia in Education

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

Number of credits: 4

Recommended semester/trimester of the course: 2.

Course level: 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: 85

A	B	C	D	E	FX
85.88	10.59	0.0	0.0	1.18	2.35

Provides: doc. RNDr. Marián Kireš, PhD., RNDr. Rastislav Adamek, PhD.

Date of last modification: 18.02.2014

Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚTVŠ/ ZKLS//13	**Course name:** Winter Ski Training Course
Course type, scope and the method: **Course type:** Practice **Recommended course-load (hours):** **Per week:** 36 **Per study period:** 504 **Course method:** present	
Number of credits: 2	
Recommended semester/trimester of the course:	
Course level: I., II.	
Prerequisities:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 59	

abs	n
25.42	74.58

Provides: PaedDr. Imrich Staško, doc. PhDr. Ivan Šulc, CSc.
Date of last modification: 15.01.2014
Approved: prof. RNDr. Andrej Bobák, DrSc., prof. RNDr. Jozef Doboš, CSc., prof. Volodymyr Starosta, DrSc.