University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

**Course name:** Activating forms of biology teaching

AFV/15

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: ÚBEV/DIB1/03

# **Conditions for course completion:**

Colloquium - presentation of seminar work.

# **Learning outcomes:**

Extension skills of new teaching methods and selected practical activities.

#### **Brief outline of the course:**

Teacher and student - partners in learning. The development of science skills through IBSE (Inquiry based science education). New approaches to formative and summative assessment in IBSE. New educational technologies supporting IBSE. Different ways of working with text when learning biology. Project management and cooperative methods for biology lessons. Presentation of seminar work.

# **Recommended literature:**

Kimáková, K.: Úvod do štúdia didaktiky biológie, elektronický študijný text, 2008 Kimáková, K., Švecová, M.: Teorie a praxe zařazení školních projektů ve výuce přírodopisu a biologie, Karolinum Praha 2001 Hudáková, A., Kimáková, K.: Demonštračné pokusy a pozorovania z biológie rastlín, UPJŠ Košice 2005 Periodical publications for teaching biology. Internal materials and methodics on Moodle: https://lms.upjs.sk/login/index.php. Existing curriculum standards and biology textbooks for elementary and secondary schools Existing curriculum standards and biology textbooks for elementary and secondary schools

# Course language:

#### Course assessment

Total number of assessed students: 5

A	В	С	D	Е	FX
0.0	40.0	60.0	0.0	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** ÚINF/ | **Course name:** Administration of OS

AOS1/15

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., 3.

Course level: I., II.

**Prerequisities:** 

# **Conditions for course completion:**

# **Learning outcomes:**

To be able to install Linux based system, divide disks, to know how to install, configure and manage several network deamons.

# **Brief outline of the course:**

- 1. Introduction to network services
- 2. SSH
- 3. Routing and NAT
- 4. Introduction to Firewall
- 5. Advanced firewall settings
- 6. DHCP server
- 7. Web server (apache, php, mysql)
- 8. Monitoring Server (SNMP, MRTG)
- 9. Samba Server
- 10. Mail server (smtp, imap, postfix)
- 11. Proxy server
- 12. Windows server
- 13. Windows Server II.
- 14. Introduction to Virtualization (Hyper-V OpenVZ)

#### **Recommended literature:**

- 1. Linux Documentation Project, 4 updated edition. Brno: Computer Press (2008).
- 2. Stanek, W.: Windows Server 2012 Inside Out. Microsoft Press (2013)
- 3. Shah, S. Soyinka, W. Administration Linux. Grade (2007)
- 4. Nemeth, E., et al.: Linux. Brno: Computer Press (2008)

# Course language:

#### **Course assessment**

Total number of assessed students: 83

A	В	С	D	E	FX
51.81	24.1	6.02	4.82	7.23	6.02

Provides: RNDr. JUDr. Pavol Sokol, PhD., RNDr. PhDr. Peter Pisarčík

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Biology and Didactics of Biology **BDB/15** 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: ÚBEV/MKVU/15 and ÚBEV/VEK1/03 and ÚBEV/DIB1/03 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment

Total number of assessed students: 27

Α	В	С	D	Е	FX
37.04	40.74	18.52	3.7	0.0	0.0

# **Provides:**

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Biology and Didactics of Biology

**BDB/14** 

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:** ÚBEV/DIB1/03 and (ÚBEV/FG1/03 or ÚBEV/ZOG1/03) and (ÚBEV/ZOM/04 or ÚBEV/ZO1/04 or ÚBEV/ZOO1/11 or ÚBEV/BO1/03 or ÚBEV/BOT1/03)

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 114

A	В	С	D	Е	FX
21.93	31.58	27.19	14.04	5.26	0.0

**Provides:** 

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Co

**Course name:** Geology and nature protection education

**DGO/17** 

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: ÚBEV/DIB1/03 and ÚGE/GEB/12

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 0

Α	В	С	D	Е	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Didactics of biology

DIB1/03

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

Course method: present

**Number of credits:** 6

Recommended semester/trimester of the course: 2.

Course level: IL

**Prerequisities:** KPPaPZ/PPgU/15 or KPE/DPP/14 or KPE/PDU/15

# **Conditions for course completion:**

Continuous assessment of tasks, which students prepared and submitted.

Oral exam

# **Learning outcomes:**

Meet specific subjects teaching biology in high school and an elementary school. Learn and apply didactic knowledges in the topics of the biology curriculum with respect of psychological principles of learning. Selected biology teaching methods and technologies.

# **Brief outline of the course:**

- The aims of biological education in Slovakia, basic documents.
- Analysis of the curriculum and the formulation of educational objectives.
- EUR framework, phases of learning.
- Teaching strategies and methods in biology teaching.
- Concept learning.
- Problem solving and higher-order questions.
- Inquiry based science education.
- The importance of reflection.
- Verification of biological knowledge and skills. Assessment and classification.
- Educational aspects of biology teaching, development of critical thinking skills and key competences.
- Teaching aids for biology, the role of ICT.
- The school garden.
- History of biology teaching. Various concepts of biology teaching abroad.

#### **Recommended literature:**

Kimáková, K.: Úvod do štúdia didaktiky biológie, elektronický študijný text, 2008 Periodical publications for teaching biology. Internal study materials in Moodle https://lms.upjs.sk/login/index.php

Existing curriculum standards and biology textbooks for elementary and secondary schools Fišer, R.: Učíme deti myslet a učit se. Praha: Portál, 2011. 176 s. ISBN 978-80262-0043-7 Gavora, P.: Akí sú moji žiaci. (Pedagogická diagnostika žiaka). Nitra: ENIGMA, 2011. 216 s. ISBN 978-80-89132-91-1

Karnsová, M.: Jak budovat dobrý vztah mezi učitelem a žákem. Praha: Portál, 1995. 151 s. ISBN 80-7178-032-4

Kotrba, T., Lacina, L.: Praktické využití aktivizačných metod ve výuce. Brno: Společnost pro odbornou literaturu, 2007. 188 s. ISBN 978-80-87029-12-1

Kyriacou, Ch.: Klíčové dovednosti učitele. Praha: Portál, 1996. 153 s. ISBN 80-7178-022-7

Petty, G.: Moderní vyučování. Praha: Portál, 2013. 380 s. ISBN 80-7178-070-7

Silberman, M.: 101 Metod pre aktivní výcvik a vyučování. Praha: Portál, 1997. 312 s. ISBN: 80-7178-124-X

# **Course language:**

#### **Course assessment**

Total number of assessed students: 494

A	В	С	D	Е	FX
46.96	30.97	17.61	4.45	0.0	0.0

**Provides:** doc. RNDr. Katarína Kimáková, CSc., PaedDr. Andrea Lešková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Course name:

DIN1a/15

Course name: Didactics of informatics

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: 2.

Course level: II.

# **Prerequisities:**

# **Conditions for course completion:**

Computer science teaching plan at secondary grammar school. Conceptual map and cognitive objectives of chosen topic. Solving of algorithmic problem with the description of used problem solving strategies. Collection of tasks with increasing complexity. Video recorded from microteaching of chosen topic using activating methods. Applet to the teaching of algorithms and programming. Worksheet to programming chosen game in Scratch. Activity in discussion forums.

# **Learning outcomes:**

- 1. To acquire an overview of the objectives, content, modern methods of teaching computer science.
- 2. To create conceptual map, cognitive objectives and tasks collection with increasing complexity for chosen topic.
- 3. To solve selected algorithmic problems using various problem solving strategies.
- 4. To master the methodology of teaching of algorithms and programming using selected algorithmic simulations, games, programming environments.

#### **Brief outline of the course:**

The objectives and content of computer science education. Solving algorithmic problems exploiting algorithmic games and children's programming environment. Teaching task, its forms and parameters. Creation of tasks collection with increasing complexity. Activating methods of teaching computer science. Methodology of teaching selected topics of algorithms and programming (recursion, sorting, searching, coding, encryption, compression, checksums). Methodology of teaching programming in Scratch.

#### **Recommended literature:**

- 1. HAZZAN, Orit LAPIDOT, Tami RAGONIS, Noa (2011). Guide to teaching computer science: an activity-based approach. London; New York: Springer, ©2011. ISBN 978-0-85729-443-2.
- 2. BELL, Tim MORGAN, Jack (2014). Computer Science Field Guide. University of Canterbury, New Zealand. http://www.cosc.canterbury.ac.nz/csfieldguide/index.html
- 3. BELL, Tim WITTEN, Ian H. FELLOWS, Mike (2005). Computer Science Unplugged: An enrichment and extension programme for primary-aged children. Computer Science Unplugged. 2005. http://ir.canterbury.ac.nz/bitstream/10092/247/1/12584508 Main.pdf

- 4. KALAŠ, Ivan et al. (2001). Informatika pre stredné školy, Bratislava : SPN, 2001. ISBN 80-10-00157-0.
- 5. TOMCSÁNYIOVÁ, Monika et al. (2009). Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika Riešenie problémov a základy programovania 1. 2009. ISBN 978-80-8118-023-1.
- 6. GUNIŠ, Ján SUDOLSKÁ, Miloslava ŠNAJDER, Ľubomír (2009). Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika Aktivizujúce metódy vo vyučbe školskej informatiky. 2009. ISBN 978-80-89225-96-5.

# **Course language:**

#### **Course assessment**

Total number of assessed students: 64

A	В	С	D	Е	FX
26.56	15.63	23.44	20.31	12.5	1.56

Provides: doc. RNDr. L'ubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

**Approved:** Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová, CSc.Guaranteedoc. RNDr. Katarína Kimáková, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cou

**Course name:** Didactics of informatics

DIN1b/15

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:**

# **Conditions for course completion:**

The preliminary assessment shall be based on the results of independent work of student on computers for a number of sub-assignments (course and evaluation of own inquiry activity, didactical quiz, interactive modelling applet, inquiry-based worksheet with tasks and questions). In final exam students will demonstrate an overview of the theoretical knowledge in the field of computer science education in written form and they will present and defend their own educational project for the chosen topic of the computer science (containing objectives, system of tasks with increasing complexity, tasks solutions and methodological commentaries and didactical quiz).

#### **Learning outcomes:**

- 1. For the chosen topic of school informatics create didactic quiz, inquiry-based worksheet with tasks and questions, implement and evaluate own inquiry activity.
- 2. To create an interactive model for the chosen natural phenomenon or computer science concept.
- 3. To create a lesson preparation using modern teaching methods and aids, to implement it in practice and evaluate.

#### **Brief outline of the course:**

Teaching paradigms. Inquiry based computer science education. Process of creating concepts in computer science. Assessment of learning objectives of pupils, didactical quizes. Programming teaching (paradigms, environments, data types, commands, variables). Specifics of computer arithmetics. Mathematical modelling and simulation. Methodology of teaching selected topics of computer science (multimedia, internet). Computer science competitions.

#### **Recommended literature:**

- 1. HAZZAN, Orit LAPIDOT, Tami RAGONIS, Noa (2011). Guide to teaching computer science: an activity-based approach. London; New York: Springer, ©2011. ISBN 978-0-85729-443-2.
- 2. BELL, Tim MORGAN, Jack (2014) Computer Science Field Guide. University of Canterbury, New Zealand. http://www.cosc.canterbury.ac.nz/csfieldguide/index.html
  3. SALANCI, Ľubomír TOMCSÁNYIOVÁ, Monika BLAHO, Andrej (2010). Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika: Didaktika programovania 2. Bratislava: Štátny pedagogický ústav, 2010. 36 s. ISBN 978-80-8118-053-8.

4. GUNIŠ, Ján - ŠNAJDER, Ľubomír (2009). Ďalšie vzdelávanie učiteľov základných škôl a stredných škôl v predmete informatika : Didaktika predmetu Informatika 2. Bratislava : Štátny pedagogický ústav, 2009. 45 s. ISBN 978-80-8118-021-7.

# Course language:

# **Course assessment**

Total number of assessed students: 146

A	В	С	D	Е	FX
17.12	32.88	24.66	16.44	8.22	0.68

Provides: doc. RNDr. L'ubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Diploma Thesis and its Defence DPOU/14 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: ÚBEV/DPP3/14 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 59

A	В	C	D	E	FX
47.46	35.59	11.86	1.69	1.69	1.69

# **Provides:**

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	rik University in Ko	šice		
Faculty: Faculty of S	cience			
Course ID: ÚBEV/ DPP1/14	Course name: Dip	loma Project I		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:			
Number of credits: 1				
Recommended seme	ster/trimester of th	e course: 1.		
Course level: II.				
Prerequisities:				
Conditions for cours	Conditions for course completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Course assessment Total number of asse	ssed students: 68			
	abs	n		
	100.0 0.0			
Provides:		·		
Date of last modifica	tion: 24.02.2017			
Approved: Guarantee		av Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová,		

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚBEV/ DPP2/14	Course name: Diploma Pr	roject II		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:			
Number of credits: 2				
Recommended seme	ster/trimester of the cours	e: 2.		
Course level: II.				
Prerequisities: ÚBE	V/DPP1/14			
<b>Conditions for cours</b>	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Course assessment Total number of asse	ssed students: 67			
	abs	n		
	100.0 0.0			
<b>Provides:</b>				
Date of last modifica	tion: 24.02.2017			
	edoc. RNDr. Stanislav Krajo NDr. Katarína Kimáková, C	gi, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, Sc.		

University: P. J. Šafá	rik University in Ko	šice		
Faculty: Faculty of S	cience			
Course ID: ÚBEV/ DPP3/14				
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:			
Number of credits: 2	2			
Recommended seme	ster/trimester of th	e course: 3.		
Course level: II.				
Prerequisities: ÚBE	V/DPP2/14 or ÚBEV	7/DP2b/03		
Conditions for cours	se completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Course assessment Total number of asse	ssed students: 60			
	abs	n		
	100.0 0.0			
Provides:		·		
Date of last modifica	ation: 24.02.2017			
<b>Approved:</b> Guarantee CSc.Guaranteedoc. R		nv Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová, ková, CSc.		

University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	cience			
Course ID: ÚINF/	Course name: Seminar to diploma theses in informatics XI			
DSU1a/15				

# 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:**

Elaboration and presentation of papers on selected areas of computer science education. Present the interim results of the diploma thesis.

# **Learning outcomes:**

Get an overview of the results of educational research in the field of computer science education. To learn currently work on the diploma thesis, to present partial results of the pedagogical research work on it.

# **Brief outline of the course:**

Educational research in the field of computer science education. Study of educational literature (conference proceedings, journals, studies) focusing on selected issues of computer science education.

Presentations of interim results of students' diploma theses.

### **Recommended literature:**

- 1. KATUŠČÁK, D. Ako písať vysokoškolské a kvalifikačné práce: ako písať seminárne práce a ročníkové práce, práce študentskej vedeckej a odbornej činnosti, diplomové, záverečné a atestačné práce a dizertácie. 3. vyd. Nitra: Enigma, 2004. 162 s. ISBN 80-89132-10-3.
- 2. ISO 690: 1987 Documentation Bibliographic references. Content, form and structure.
- 3. ISO 2145: 1978 Documentation Numbering of divisions and subdivisions in written documents.
- 4. ECO, U. Jak napsat diplomovou práci. Olomouc: Votobia, 1997. 278 s. ISBN 80-7098-173-7.
- 5. Digital libraries (ACM Digital Library, IEEExplore, DOAJ)
- 6. Scientific literature relevant to diploma thesis according of recommendation of supervisor.

#### Course language:

Slovak

#### **Course assessment**

Total number of assessed students: 6

Total number of assessed students.		
abs	n	
100.0	0.0	

Provides: doc. RNDr. L'ubomír Šnajder, PhD.

**Date of last modification:** 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Course name: Seminar to diploma theses in informatics XI

DSU1b/15

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: ÚINF/DSU1a/15

# **Conditions for course completion:**

### **Learning outcomes:**

Get an experience with design, realization and evaluation of own educational research in the field of computer science education. To learn currently work on the diploma thesis, to present partial results of the pedagogical research work on it.

#### **Brief outline of the course:**

Educational research in the field of computer science education. Study of educational literature (conference proceedings, journals, studies) focusing on selected issues of computer science education. Design, realization and evaluation of own educational research in the field of computer science education. Presentations of interim results of students' diploma theses.

# **Recommended literature:**

- 1. HENDL, Jan (2005). Kvalitativní výzkum základní metody a aplikace. Praha : Portál, 2005. ISBN 80-7367-040-2.
- 2. ŠVAŘÍČEK, Roman ŠEĎOVÁ, Klára et al. (2007). Kvalitativní výzkum v pedagogických vědách. Praha : Portál, 2007. ISBN 978-80-7367-313-0.
- 3. GAVORA, Peter et al. (2010). Elektronická učebnica pedagogického výskumu. [online]. Bratislava: Univerzita Komenského, 2010. Dostupné na: http://www.e-metodologia.fedu.uniba.sk/ ISBN 978-80-223-2951-4.
- 4. BELL, Tim MORGAN, Jack (2014). Computer Science Field Guide. University of Canterbury, New Zealand. Dostupné na: http://www.cosc.canterbury.ac.nz/csfieldguide/index.html
- 5. Digital libraries (ACM Digital Library, IEEExplore, DOAJ)
- 6. Scientific literature relevant to diploma thesis according of recommendation of supervisor.

# Course language:

Slovak

#### Course assessment

Total number of assessed students: 29

abs	n
100.0	0.0

Provides: doc. RNDr. L'ubomír Šnajder, PhD.

**Date of last modification:** 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Course nai

ETO1/03

Course name: Ethology

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

**Number of credits:** 6

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

Course level: II.

# **Prerequisities:**

# **Conditions for course completion:**

Recognition.

Written examination.

#### **Learning outcomes:**

To teach the students to know and to be aware of the importance of the behavioural aspect in biological sciences

#### **Brief outline of the course:**

History and development of ethology. Ethological methods. The innate forms of behaviour. The simplest forms of learning – conditioning and instrumental learning. Higher form of learning. Social behaviour. Sexual behaviour. Play behaviour. Biological rhythms. Orientation in space and animal migrations. Communication systems of animals. Emotions. Aggression in animal and human behaviour.

### **Recommended literature:**

Franck, D.: Verhaltensbiologie. Einfuhrung in die Ethologie. Georg Thieme-Verlag, 1993 Manning, A., Dawkins, M. S.: An introduction to animal behaviour. Cambridge University Press, 1992

# Course language:

#### Course assessment

Total number of assessed students: 889

A	В	С	D	Е	FX
39.37	24.75	26.32	7.54	1.91	0.11

Provides: RNDr. Igor Majláth, PhD., RNDr. Natália Pipová, PhD., RNDr. Terézia Kisková, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ | Course name: Microcomputer Based Science Laboratory

FEP1/07

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

#### Course assessment

Total number of assessed students: 34

A	В	С	D	Е	FX
44.12	44.12	11.76	0.0	0.0	0.0

Provides: doc. RNDr. Zuzana Ješková, PhD.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ C

**Course name:** Phytogeography

FG1/03

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

Number of credits: 5

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

Course level: I., II.

**Prerequisities:** 

# **Conditions for course completion:**

Written work.

Exam.

#### **Learning outcomes:**

To obtain theoretical and practical knowledge from phytogeography.

#### **Brief outline of the course:**

History of phytogeography. Plants and environment. Chorology, area, area disjunctions, relics, endemites, vicariancy, floral elements. Main course of florogenesis since paleozoic to quaternary ages. Postglacial evolution of Slovak vegetation. Regional phytogeography of Earth. Vegetation geography: from tropical rainforests to tundras. Changes of earth vegetation and their study. Geographical origin of cultivated plants.

Practices: Fieldworks. Preparing of maps. Phytogeographical division of Slovakia. Students seminar works on phytogeography.

#### **Recommended literature:**

Hendrych R.: Fytogeografie. - SPN, Praha 1984.

Brown J. H., Lomolino M. V.: Biogeography. - Sinauer Associates, Sunderland, 1998.

# Course language:

#### Course assessment

Total number of assessed students: 324

A	В	С	D	Е	FX
39.81	21.91	21.3	8.33	7.72	0.93

Provides: prof. RNDr. Pavol Mártonfi, PhD., Mgr. Vladislav Kolarčik, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

**Course name:** Formal languages and automata

FO1/15

Course type, scope and the method:

Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14

Course method: present

**Number of credits: 5** 

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

Course level: II.

**Prerequisities:** 

# **Conditions for course completion:**

# **Learning outcomes:**

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

# **Brief outline of the course:**

Greibach normal structure of contextfree gramars.Deterministic pushdown automata. Context-sensitive grammars and linearly-bounded Turing machines. Deterministic linearly-bounded Turing machines. Space bounded machines. Phrase-structure grammars and Turing machines. Post correspondence problem. Undecidable problems in the theory of formal languages.

#### **Recommended literature:**

# Course language:

# Course assessment

Total number of assessed students: 10

A	В	С	D	Е	FX
30.0	40.0	20.0	10.0	0.0	0.0

Provides: prof. RNDr. Viliam Geffert, DrSc., Mgr. Alexander Szabari, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚGE/ Course name: Geology and petrography **GEB/12** 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:** 2. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment

Total number of assessed students: 824

Α	В	C	D	E	FX
10.68	20.27	32.65	22.94	9.95	3.52

Provides: Ing. Katarína Bónová, PhD.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Immunology

IMU1/03

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.

**Prerequisities:** 

#### **Conditions for course completion:**

Recognition.

Oral examination.

#### **Learning outcomes:**

This course introduces the students to the basic concepts of immunology as well as highlights the role and importance of immunology in various human diseases. The aim of Immunology lessons is the presentation of the organization and function of the immune system, as well as the comprehension of complex molecular and cellular interactions during the induction of immune responses.

#### **Brief outline of the course:**

Basic immunology: Lymphatic System Anatomy, The Innate Immune System, The Induced Responses of Innate Immunity, The Adaptive Immune Response, Antigens and Antibodies, Antigen Recognition by B-cell and T-cell Receptors, Antigen Presentation to T-lymphocytes, Complement, Clinical immunology: Allergy and other Hypersensitivities, Autoimmunity and Transplantation, Tumor Immunology, Disorders of The Immune System.

### **Recommended literature:**

Janeway Ch. A., Travers P., Walport M., Schlomchik M.: Immunobiology. Garland Science, 2004 Murphy, K. (2012): Jeneway's Immunobiology. 8th ed. Garland Science

Delves, P.J. et al. (2011): Roitt's essential immunology 12th ed Wiley-Blackwell

# Course language:

#### Course assessment

Total number of assessed students: 834

A	В	С	D	Е	FX
38.25	24.22	25.54	7.07	1.56	3.36

Provides: RNDr. Vlasta Demečková, PhD.

Date of last modification: 24.02.2017

**Approved:** Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ | Course name:

JAC1/15

Course name: Programming language C

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., 3.

Course level: I., II.

**Prerequisities:** 

# **Conditions for course completion:**

Practics attendance and activity. Home assignment

Final project.

# **Learning outcomes:**

Become skilled in language C and get knowledge of the theoretical concepts that are used in the development in low-level software.

#### **Brief outline of the course:**

- 1. Installing and setting up the development environment. Simple program in C, compiling and running.
- 2. Loops, conditions. Introduction to arrays. Numeric functions from numeric library. Compiling with 'gcc' and setting up the warnings and hints.
- 3. Functions. Statically allocated arrays. Array gotchas in C. Makefiles for complex projects.
- 4. Basic I/O functions. Functions with array parameters and specifics.
- 5. Dynamic memory allocation as a mechanism for dynamic arrays. Strings as a special case of arrays. Strings and file I/O.
- 6. String manipulation principles and functions from standard library.
- 7. Working with binary files.
- 8. Custom data types. Structs.
- 9. Dynamic data structures. Linked lists. Stacks and operations with these structs.
- 10. Additional operations with dynamic data structures. Parameter passing with values and name.
- 11. Useful tricks and hints: passing parameters from operating system, exit codes. Multidimensional arrays.
- 12. Function pointers. Generic pointers. Unions.

# **Recommended literature:**

- 1. A. D. Marshall: Programming in C: UNIX System Calls and Subroutines using C. [online] <a href="http://www.cs.cf.ac.uk/Dave/C/CE.html">http://www.cs.cf.ac.uk/Dave/C/CE.html</a>
- 2. J. Maasen: C for Java Programmers. [online] <a href="http://www.cs.vu.nl/~jason/college/dictaat.pdf">http://www.cs.vu.nl/~jason/college/dictaat.pdf</a>
- 3. Bruce Eckel: Thinking in C. [online] <a href="http://mindview.net/CDs/ThinkingInC">http://mindview.net/CDs/ThinkingInC</a>

# Course language:

#### Course assessment

Total number of assessed students: 170					
A	В	C	D	Е	FX
38.24	20.0	15.29	11.18	11.18	4.12

Provides: RNDr. PhDr. Peter Pisarčík

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Culture of Spoken Discourse KSSFaK/ KJPUAP/15 Course type, scope and the method: Course type: Lecture / Practice **Recommended course-load (hours):** Per week: 1 / 1 Per study period: 14 / 14 Course method: present Number of credits: 2 **Recommended semester/trimester of the course:** 1. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Course assessment** Total number of assessed students: 0 Α В  $\mathbf{C}$ D Е FX 0.0 0.0 0.0 0.0 0.0 0.0

Provides: PhDr. Iveta Bónová, PhD.

Date of last modification: 18.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ C

Course name: Classical and quantum computations

KKV1/15

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:** 6

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

Course level: II.

**Prerequisities:** 

# **Conditions for course completion:**

Written work

Writen and oral examination

#### **Learning outcomes:**

To provide information on quantum computer and quantum computations. To compare classical and quantum models and methods.

#### **Brief outline of the course:**

The basics of classical theory of computation: Turing machines, Boolean circuits, parallel algorithms, probabilistic computation, NP-complete problems, and the idea of complexity of an algorithm. Introduction of general quantum formalism (pure states, density matrices, and superoperators), universal gate sets and approximation theorems. Grover's algorithm, Shor's factoring algorithm, and the Abelian hidden subgroup problem. Parallel quantum computation, a quantum analogue of NP-completeness, and quantum error-correcting codes.

#### **Recommended literature:**

- 1. BERMAN,G.P., DOOLEN,G.D., MAINIERI, R., TSIFRINOVIC, V.I. Introduction to Quantum Computers. World Scientific, 2003.
- 2. GRUSKA, J. Quantum Computing. McGraw-Hill, 1999.
- 3. JOHNSON, G. A Shortcut Through Time: The Path to the Quantum Computer, Knopf 2003.
- 4. KITAEV, A.Y., SHEN, A.H., VYALYI, M.N. Classical and Quantum Computation. American Mathematical Society, 2002.
- 5. NIELSEN, M.A., CHUANG, I.L. Quantum Computation and Quantum Information. Cambridge University Press, 2000.
- 6. HIRVENSALO, M., Quantum Computing, Springer 2004

# Course language:

# Course assessment

Total number of assessed students: 104

A	В	С	D	Е	FX
23.08	35.58	14.42	14.42	8.65	3.85

Provides: doc. RNDr. Gabriel Semanišin, PhD., RNDr. Zuzana Bednárová, PhD.

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚTVŠ/ KP/12	Course name: Survival Co	purse
Course type, scope a Course type: Practic Recommended cour Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 36s	
Number of credits: 2	2	
Recommended seme	ster/trimester of the cours	e:
Course level: I., II.		
Prerequisities:		
Conditions for cours	se completion:	
Learning outcomes:		
Brief outline of the c	course:	
Recommended litera	nture:	
Course language:		
Course assessment Total number of asses	ssed students: 329	
	abs	n
47.11 52.89		
<b>Provides:</b> MUDr. Pet	er Dombrovský, Mgr. Marel	k Valanský
Date of last modifica	ntion: 23.02.2017	
	edoc. RNDr. Stanislav Krajč NDr. Katarína Kimáková, C	i, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, Sc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** 

**Course name:** Professional Ethics for Teachers and School Counsellors

KPPaPZ/KPE/

EPU/15

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:** 

**Course assessment** 

Total number of assessed students: 217

A	В	С	D	Е	FX
93.09	5.99	0.92	0.0	0.0	0.0

Provides: Mgr. Lucia Hricová, PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

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 a Course type: Practic Recommended course Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 36s					
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 c	ourse:					
Recommended litera	iture:					
Course language:						
Course assessment Total number of asse	ssed students: 126					
	abs	n				
45.24		54.76				
Provides: Mgr. Peter	Bakalár, PhD.	•				
Date of last modification: 23.02.2017						
	edoc. RNDr. Stanislav F NDr. Katarína Kimákov	Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová, vá, CSc.				

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Logic programming

LOP1/15

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., 4.

Course level: I., II.

**Prerequisities:** 

# **Conditions for course completion:**

### **Learning outcomes:**

To learn bases of declarative programming (as complementary method to procedural programming) and basic methods of implementations of logic programming languages.

# **Brief outline of the course:**

Facts and rules in Prolog. Unification of terms (Robinson's unification algorithm). Recursion and backtrack in Prolog. Computational step and computational tree. Classification of terms. Lists. Functors and operators in composed terms. Predicates for input and output. Dynamic database. Cycles (repeat-fail, for). Predicates related to backtrack. Cut. Predicates evaluating of arithmetic expressions.

# **Recommended literature:**

Bratko, I.: Prolog – programming for artificial intelligence, third edition. Addison-Wesley, 2001 Nilsson U., Maluszynski J.: Logic, Programming and Prolog, John Wiley & Sons Ltd. 1995 Nienhuys-Cheng Sh.H., Wolf R.: Foundations of Inductive Logic Programming, Springer-Verlag, 1997

# Course language:

# Course assessment

Total number of assessed students: 241

A	В	С	D	Е	FX
21.58	10.79	13.69	23.65	28.22	2.07

Provides: RNDr. Ondrej Krídlo, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚFV/ Course name: Modern Didactical Technics

MDT06/15

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:**

All assignments must be uploaded and accepted be teacher.

Active participation at seminar with minimum 80% participation.

# **Learning outcomes:**

Student graduated from subject will be able:

- recognise basic tools for teaching activities,
- to use all types of actuall tools in science education,
- to design and realise educational activities by using modern technologies.

#### **Brief outline of the course:**

- 1. Didigital teacher's workspace'
- 2. Digital imaging
- 3. Digital image processing
- 4. Digital audio processing
- 5. Digital video processing
- 6. Web cam and videoconferencing systems
- 7. Interactive didactical system (wideboard, voting system)
- 8. Computer based measurements
- 9. Digital technologies in everyday life

# **Recommended literature:**

- 1. Kireš, M. et al.: Modern didactical technics in teacher practice, Košice: Elfa, 2010, ISBN 788080861353
- 2. actuall information from web sites related to didactical technologies,
- 3. catalogues of teaching tools,
- 3. actuall articles about modern trends in science education.

# Course language:

Slovak, English

# **Course assessment**

Total number of assessed students: 41

A	В	С	D	Е	FX
29.27	48.78	12.2	4.88	4.88	0.0

Provides: doc. RNDr. Jozef Hanč, PhD.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course name: Mikrobiológia a základy virológie

MKVU/15

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:**

# **Conditions for course completion:**

Attendance of practicals (at least 90%), 2 written examinations during semester, final oral examination

# **Learning outcomes:**

Students will obtain a basic informations on viruses, prokaryotic and eukaryotic microorganisms, their cytology, physiology, genetics, ecology, classification, and importance . Information on basic methods for studying microorganisms will be provided.

#### **Brief outline of the course:**

Viruses, prokaryotic and eukaryotic microorganisms, their cytology, physiology, genetics, ecology, classification. The importance of microorganisms for humans and environment.

# **Recommended literature:**

#### Course language:

#### Course assessment

Total number of assessed students: 1187

A	В	С	D	Е	FX
22.33	11.63	17.02	20.47	23.76	4.8

**Provides:** doc. RNDr. Peter Pristaš, CSc., RNDr. Mariana Kolesárová, PhD., RNDr. Lenka Maliničová, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: KPE/ MPPa/15	8 S				
Course type, scope a Course type: Practic Recommended cou Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 36s				
Number of credits: 2	2				
Recommended seme	ester/trimester of the cours	e: 1.			
Course level: II.					
Prerequisities:					
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the c	course:				
Recommended litera	ature:				
Course language:					
Course assessment Total number of asse	ssed students: 613				
	abs	n			
99.84 0.16					
<b>Provides:</b> doc. PhDr. Petríková, PhD.	Beata Gajdošová, PhD., Pad	edDr. Renáta Orosová, PhD., Mgr. Katarína			
Date of last modifica	ntion: 07.02.2017				
	edoc. RNDr. Stanislav Krajč NDr. Katarína Kimáková, C	i, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, Sc.			

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ | Course name: Scheduled practice teaching

MPPb/15

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: 1

**Recommended semester/trimester of the course:** 2.

Course level: II.

**Prerequisities:** KPE/MPPa/15 and KPE/PDU/15 and (KPPaPZ/PaSPP/09 or KPPaPZ/PPgU/15)

# **Conditions for course completion:**

During the practice students observe 11 computer science lessons and leads one own computer science hour under the guidance of a teacher trainer. Confirmation of classroom visits. Written assessment from the teacher trainer.

# **Learning outcomes:**

Students acquire knowledge by observing the practical application of teaching skills for teaching the subject of computer science and getting to know the organization of school work. Introduction into practical implementation of computer science lesson.

#### **Brief outline of the course:**

Students observe the process of teaching computer science at primary and secondary school and analysed it with teacher trainer. Practice takes place continuously during the course of the semester. Practice is scheduled once a week at the time of first to third lesson in schools.

The first two hours observation/teaching, the third hour analysing process under the guidance of a teacher trainer.

#### Recommended literature:

Current computer science textbooks for primary and secondary schools in Slovakia.

# Course language:

Slovak

# **Course assessment**

Total number of assessed students: 64

abs	n
100.0	0.0

Provides: doc. RNDr. L'ubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

Course name: Scheduled practice teaching

MPPb/15

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: 1

**Recommended semester/trimester of the course:** 2.

Course level: IL

**Prerequisities:** KPE/MPPa/15 and KPE/PDU/15 and (KPPaPZ/PaSPP/09 or KPPaPZ/PPgU/15)

#### **Conditions for course completion:**

During the practice student observe 11 biology lessons and leads one own biology hour under the guidance of a teacher trainer.

Confirmation of classroom visits.

Written assessment from the teacher trainer.

# **Learning outcomes:**

Students acquire knowledge by observing the practical application of teaching skills for teaching the subject of biology and getting to know the organization of school work. Introduction into practical implementation of biology lesson.

#### **Brief outline of the course:**

Students observe the process of teaching biology at primary and secondary school and analyzed it with teacher trainer. Practice takes place continuously during the course of the semester. Practice is scheduled once a week at the time of first to third lesson in schools.

The first two hours observation/teaching, the third hour analysing process under the guidance of a teacher trainer.

### **Recommended literature:**

Current biology textbooks for primary and secondary schools in Slovakia.

# **Course language:**

# Course assessment

Total number of assessed students: 379

abs	n
99.47	0.53

#### **Provides:**

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚBEV/ MPPc/15	Course name: Continuous	practice teaching I			
Course type, scope a Course type: Practic Recommended cou Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 4t				
Number of credits: 2	2				
Recommended seme	ster/trimester of the cours	e: 3.			
Course level: II.					
Prerequisities: ÚBE	V/MPPb/03 or ÚBEV/MPP	0/15			
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	nture:				
Course language:					
Course assessment Total number of asse	ssed students: 102				
	abs	n			
	100.0 0.0				
Provides:					
Date of last modifica	ation: 24.02.2017				
	edoc. RNDr. Stanislav Krajo NDr. Katarína Kimáková, (	ći, PhD.Guaranteeprof. PhDr. Oľga Orosová, 'Sc.			

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ Cou

Course name: Continuous practice teaching I

MPPc/15

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:** ÚINF/MPPb/15

# **Conditions for course completion:**

A certified statement of classroom visits and own taught lessons as proof of a practice within the range prescribed 6 hours classroom visits and 18 taught computer science lessons. Observation records and lesson preparations.

# **Learning outcomes:**

The student under supervision of an experienced teacher trainer teaching practical skills for computer science teaching. Student is familiar with the life of the school, extra-curricular and other activities.

#### **Brief outline of the course:**

Observations of teacher trainer lessons, consultations of lesson preparations of students, teaching aids, teaching own lessons, methodological and scientific analysis of lessons, active participation in extracurricular and other activities of training school.

### **Recommended literature:**

Current computer science textbooks for primary and secondary schools in Slovakia.

#### **Course language:**

Slovak

# **Course assessment**

Total number of assessed students: 10

abs	n			
100.0	0.0			

Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Continuous practice teaching II

MPPd/15

Course type, scope and the method:

**Course type:** Practice

Recommended course-load (hours): Per week: Per study period: 6t

Course method: present

**Number of credits: 2** 

Recommended semester/trimester of the course: 4.

Course level: IL

Prerequisities: ÚINF/MPPc/15

# **Conditions for course completion:**

A certified statement of classroom visits and own taught lessons as proof of a practice within the range prescribed 8 hours classroom visits and 30 taught computer science lessons. Observation records and lesson preparations.

# **Learning outcomes:**

The student under supervision of an experienced teacher trainer teaching practical skills for computer science teaching. Student is familiar with the life of the school, extra-curricular and other activities.

#### **Brief outline of the course:**

Observations of teacher trainer lessons, consultations of lesson preparations of students, teaching aids, teaching own lessons, methodological and scientific analysis of lessons, active participation in extracurricular and other activities of training school.

### **Recommended literature:**

Current computer science textbooks for primary and secondary schools in Slovakia.

#### Course language:

Slovak

# **Course assessment**

Total number of assessed students: 7

abs	n
100.0	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚBEV/ MPPd/15					
Course type, scope a Course type: Practic Recommended cou Per week: Per stud Course method: pre	ce rse-load (hours): ly period: 6t				
Number of credits: 2	2				
Recommended seme	ster/trimester of the cours	e <b>:</b> 4.			
Course level: II.					
Prerequisities: ÚBE	V/MPPc/15				
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
Recommended litera	nture:				
Course language:					
Course assessment Total number of asse	ssed students: 76				
	abs	n			
100.0 0.0					
Provides: PaedDr. At	ndrea Lešková, PhD.				
Date of last modifica	ntion: 24.02.2017				
	edoc. RNDr. Stanislav Krajč NDr. Katarína Kimáková, C	i, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, Sc.			

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Informatika a didaktika informatiky

MSSUI/15

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:** ÚINF/DIN1b/15 and ÚINF/TIK1/15 and (ÚINF/UGR1/15 or ÚINF/KKV1/15 or ÚINF/KKV1/15)

ÚINF/UNS1/15 or ÚINF/FO1/15)

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 11

A	В	С	D	Е	FX
45.45	18.18	18.18	9.09	9.09	0.0

**Provides:** 

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPE/ Course name: Class Management MT/09 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: Course assessment Total number of assessed students: 455 В  $\mathbf{C}$ D E FX Α

Provides: PaedDr. Renáta Orosová, PhD.

32.97

Date of last modification: 07.02.2017

54.07

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

1.54

0.66

1.1

9.67

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KGER/

Course name: Communicative Grammar in German Language

NJKG/07

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:

**Course assessment** 

Total number of assessed students: 47

A	В	С	D	Е	FX
53.19	12.77	10.64	4.26	10.64	8.51

Provides: PaedDr. Ingrid Puchalová, PhD.

Date of last modification: 20.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Defence of diploma thesis ODPU/15 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: ÚINF/DSU1b/15 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Course assessment** Total number of assessed students: 9 В  $\mathbf{C}$ D Е FX Α 55.56 0.0 44.44 0.0 0.0 0.0

# **Provides:**

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Cours

Course name: Conservation Biology

OPR/12

Course type, scope and the method: Course type: Lecture / Practice

Recommended course-load (hours): Per week: 2 / 0 Per study period: 28 / 0

Course method: present

Number of credits: 3

**Recommended semester/trimester of the course:** 1.

Course level: I., II.

**Prerequisities:** 

# **Conditions for course completion:**

Examination.

# **Learning outcomes:**

The main goal of the subject is to introduce term biodiversity, principal threats and conservation of species, populations, communities and ecosystems.

#### **Brief outline of the course:**

Fundamental and origin of conservation biology. Different levels of biodiversity, biodiversity hotspots on Earth. Economic value of biodiversity as the principal argument of nature conservation. Factors leading to biodiversity threats. Extinctions and problems of small populations. Conservation of populations and species, conservation programs and strategies. Classification and management of protected areas, conservation outside the protected areas. Sustainable development, education to conservation of nature.

### **Recommended literature:**

Primack R.B., 2010: Essentials of conservation biology. Sinauer Associates, 1-603

# **Course language:**

#### Course assessment

Total number of assessed students: 559

A	В	С	D	Е	FX
75.49	13.6	7.69	2.15	0.36	0.72

Provides: doc. RNDr. Ľubomír Kováč, CSc.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID:

Course name: Problémové a agresívne správanie žiakov. Etiológia,

KPPaPZ/PASZ/17 prevencia a intervencia.

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:

**Course assessment** 

Total number of assessed students: 17

Α	В	С	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 25.05.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPE/ Course name: Pedagogical Diagnostics **PDD/17** 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: Course assessment Total number of assessed students: 7 В  $\mathbf{C}$ D Е FX Α 100.0 0.0 0.0 0.0 0.0 0.0

Provides: PaedDr. Renáta Orosová, PhD., Mgr. Lucia Diheneščíková, PhD.

Date of last modification: 13.06.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPE/ Course name: Pedagogical Communication **PDK/17** 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: Course assessment Total number of assessed students: 8 В  $\mathbf{C}$ D Е FX Α 75.0 25.0 0.0 0.0 0.0 0.0 Provides: Mgr. Katarína Petríková, PhD.

Date of last modification: 13.06.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Pro-seminar to diploma thesis in informatics PDSI1/15

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: IL

**Prerequisities:** 

# **Conditions for course completion:**

# **Learning outcomes:**

To inform students about areas of informatics they are suitable to work in diploma theses. In the end of semester students have to prepared themes of diploma theses, goals and recommended study literature.

#### **Brief outline of the course:**

The seminar is oriented to problems prospective to preparations of Diploma theses.

# **Recommended literature:**

MEŠKO, D., KATUŠČÁK, D. Akademická príručka. 1. vyd. Vydavateľstvo Osveta : Martin, 2004. 316 s. ISBN 80-8063-150-6

ISO 690: 1987 Documentation - Bibliographic references. Content, form and structure.

ISO 2145: 1978 Documentation - Numbering of divisions and subdivisions in written documents.

Eco, U.: Jak napsat diplomovou práci, z taliančiny Come si fa una tesi di laures, Milano, 1977, Olomouc, Votobiax.

Odborná a vedecká literatúra týkajúca sa diplomovej práce podľa odporúčania vedúceho diplomovej práce.

# Course language:

#### Course assessment

Total number of assessed students: 427

abs	n
99.3	0.7

Provides: doc. RNDr. L'ubomír Šnajder, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/

**Course name:** Teaching Methodology and Pedagogy

PDU/15

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:

**Course assessment** 

Total number of assessed students: 1275

A	В	С	D	Е	FX
11.76	25.8	26.2	20.08	8.71	7.45

**Provides:** PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD., Mgr. Lucia

Diheneščíková, PhD.

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/

Course name: Academic English

PFAJAKA/07

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:**

Active classroom participation, 2 absences tolerated (4x45 min.) tolerated. 2 tests (5th/6th week and 12th/13th week), no retake. Minipresentation on chosen topic. Final evaluation- average assessment of tests and presentation. Grading scale: A 93-100%, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64% and less

# **Learning outcomes:**

#### **Brief outline of the course:**

# **Recommended literature:**

Seal B.: Academic Encounters, CUP, 2002

T. Armer: Cambridge English for Scientists, CUP 2011

M. McCarthy M., O'Dell F. - Academic Vocabulary in Use, CUP 2008

Zemach, D.E, Rumisek, L.A: Academic Writing, Macmillan 2005

Olsen, A.: Active Vocabulary, Pearson, 2013

www.bbclearningenglish.com

Cambridge Academic Content Dictionary, CUP, 2009

# Course language:

English language, level B2 according to CEFR.

#### Course assessment

Total number of assessed students: 334

A	В	С	D	Е	FX
29.94	23.65	16.17	11.08	7.49	11.68

Provides: PaedDr. Gabriela Bednáriková

Date of last modification: 21.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: CJP/

**Course name:** Communicative Grammar in English

PFAJGA/07

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:**

Active classroom participation (max. 2x90 min. absences tolerated). 2 test (5th/6th and 12/13th week), no retake. Final evaluation- average assessment of tests. Grading scale: A 93-100%, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64% and less.

# **Learning outcomes:**

# **Brief outline of the course:**

#### **Recommended literature:**

Misztal M.: Thematic Vocabulary, Fragment, 1998 McCarthy, O'Dell: English Vocabulary in Use, 1994

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

Jones I. - Communicative Grammar Practice, CUP, 1992

Vince M.: Macmillan Grammar in Context, Macmillan, 2008

www.bbclearningenglish.com

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

#### Course language:

#### Course assessment

Total number of assessed students: 389

A	В	С	D	E	FX
39.33	18.25	16.97	9.0	6.17	10.28

Provides: PaedDr. Gabriela Bednáriková, Mgr. Barbara Mitríková

Date of last modification: 21.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

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:**

Active participation in class and completed homework assignments. Students are allowed to miss two classes at the most.

2 credit tests (presumably in weeks 6/7 and 12/13) and short academic presentations in English on selected topics.

Final grade will be calculated as follows: A 93-100 %, B 86-92%, C 79-85%, D 72-78%, E 65-71%, FX 64 % and less.

# **Learning outcomes:**

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

#### **Brief outline of the course:**

Rodina, jej formy a problémy

Vyjadrovanie pocitov a dojmov

Dom, bývanie a budúcnosť

Formy a dialekty v anglickom jazyku

Život v meste a na vidieku

Kolokácie a idiomy, zaužívané slovné spojenia

Prázdniny a sviatky vo svete

Životné prostredie a ekológia

Výnimky zo slovosledu

Frázové slovesá a ich použitie

Charakteristiky neformálneho diškurzu

# **Recommended literature:**

www.bbclearningenglish.com

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

Misztal M.: Thematic Vocabulary. SPN, 1998.

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

Principal, 2008.

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

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

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

# Course language:

English language, B2 level according to CEFR

# **Course assessment**

Total number of assessed students: 211

A	В	С	D	Е	FX
36.02	21.33	20.38	10.9	7.58	3.79

Provides: Mgr. Barbara Mitríková

Date of last modification: 21.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPE/ Course name: Pedagogy and Psychology **PPD/15** 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/PDU/15 and KPPaPZ/PPgU/15 **Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 279 В  $\mathbf{C}$ D Е FX Α

# **Provides:**

27.24

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

15.41

0.36

4.3

27.96

CSc.Guaranteedoc. RNDr. Katarína Kimáková, CSc.

24.73

University: P. J. Šafá	rik University in Koši	ce
Faculty: Faculty of S	cience	
Course ID: ÚINF/ PPU1a/15	Course name: Runn	ing practice
Course type, scope a Course type: Practi Recommended cou Per week: 2 Per stu Course method: pr	ce rse-load (hours): idy period: 28	
Number of credits: 2	2	
Recommended seme	ester/trimester of the	course: 2.
Course level: II.		
Prerequisities:		
Conditions for cour	se completion:	
Learning outcomes:		
Brief outline of the	course:	
Recommended litera	ature:	
Course language:		
Course assessment Total number of asse	ssed students: 154	
	abs	n
	97.4	2.6
Provides: RNDr. JUI	Dr. Pavol Sokol, PhD.	·
Date of last modifica	ntion: 07.02.2017	
	edoc. RNDr. Stanislav NDr. Katarína Kimáko	Krajči, PhD.Guaranteeprof. PhDr. Oľga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Dek. PF

**Course name:** Personality Development and Key Competences for Success

UPJŠ/PPZ/13

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:

Course level: II.

**Prerequisities:** 

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 39

A	В	С	D	Е	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: RNDr. Peter Stefányi, PhD.

Date of last modification: 13.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** 

Course name: Psychology and Educational Psychology

KPPaPZ/PPgU/15

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:

**Course assessment** 

Total number of assessed students: 1199

Α	В	С	D	Е	FX
10.51	18.93	22.85	22.52	21.93	3.25

Provides: prof. PhDr. Ol'ga Orosová, CSc., Mgr. Lucia Hricová, PhD., PhDr. Anna Janovská, PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Psychológia tvorivosti a práca s nadanými v práci učiteľa KPPaPZ/PTPN/17 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: Course assessment Total number of assessed students: 3

A	В	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: Mgr. Lucia Hricová, PhD.

Date of last modification: 25.05.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** 

Course name: Drug Addiction Prevention in Educational Practice

KPPaPZ/PUDU/15

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: 1., 3.

Course level: II.

**Prerequisities:** 

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 204

Α	В	С	D	E	FX
46.57	42.65	9.8	0.98	0.0	0.0

Provides: prof. PhDr. Ol'ga Orosová, CSc., Mgr. Marta Kulanová, PhD., Mgr. Marcela

Štefaňáková, Mgr. Bohuš Hajduch

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Psychology of Health KPPaPZ/PsZ/15 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: Course assessment Total number of assessed students: 50

A	В	C	D	E	FX
100.0	0.0	0.0	0.0	0.0	0.0

Provides: Mgr. Jozef Benka, PhD. et PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPO/ Course name: Child and Adolescent Sociology SDaM/15 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: Course assessment Total number of assessed students: 831

A	В	С	D	Е	FX
49.94	29.6	15.4	3.37	1.32	0.36

Provides: Mgr. Alexander Onufrák, PhD.

Date of last modification: 17.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Mobbing, Violence and Their Prevention KPPaPZ/SNP/09 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: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 83

A	В	С	D	E	FX
80.72	18.07	1.2	0.0	0.0	0.0

Provides: Mgr. Mária Bačíková, PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/

**Course name:** School experiments and observations

**SPP/08** 

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:**

Realisation of didactic analysis after conducted experiments and observations.

# **Learning outcomes:**

Preparing students for the implementation of biological school experiments and observations.

# **Brief outline of the course:**

The course is aimed at training and application skills that are necessary for the implementation of experiments and observations in the classroom. It helps students develop theoretical knowledge in practical work during training and familiarizes them with didactic methods in demonstrating the biological observation and educational experiments. It focuses on the possibilities of applying these methods in the various stages of a teaching unit.

# **Recommended literature:**

HUDÁKOVÁ, A., KIMÁKOVÁ, K. 2005. Demonštračné pokusy a pozorovania z biológie rastlín. Košice: UPJŠ; Prírodovedecká fakulta, 84 s. ISBN 80-7097-610-1. Internal study materials in Moodle https://lms.upjs.sk/login/index.php

#### Course language:

#### Course assessment

Total number of assessed students: 64

A	В	С	D	E	FX
64.06	20.31	12.5	3.13	0.0	0.0

Provides: PaedDr. Andrea Lešková, PhD., Mgr. Zuzana Boberová, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚBEV/ Course name: Student Scientific Conference SVK/01 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: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Course assessment** Total number of assessed students: 230 В  $\mathbf{C}$ D Е FX Α 100.0 0.0 0.0 0.0 0.0 0.0 **Provides:** 

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Student scientific conference SVK1/15 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., 4. Course level: I., II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: **Course assessment** Total number of assessed students: 138 В  $\mathbf{C}$ D Е FX Α 100.0 0.0 0.0 0.0 0.0 0.0 **Provides:** 

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: ÚINF/ Course name: Information theory, encoding TIK1/15 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:** 1. Course level: II. **Prerequisities: Conditions for course completion: Learning outcomes: Brief outline of the course: Recommended literature:** Course language: Course assessment Total number of assessed students: 56 В  $\mathbf{C}$ D Е FX Α 55.36 14.29 12.5 5.36 12.5 0.0

Provides: doc. RNDr. Stanislav Krajči, PhD.

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** ÚINF/

Course name: Development and processing of multimedia

TSM1a/15

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., 3.

Course level: II.

## **Prerequisities:**

## **Conditions for course completion:**

Assessment of preliminary assignments - static images, animations, sounds, videos. Assessment of the final multimedia project for the selected topic of computer science.

## **Learning outcomes:**

To acquire basic principles about multimedia and procedures for the creation and processing of multimedia (still images, animation, audio, video).

### **Brief outline of the course:**

Principles of creation and processing of computer graphics, audio and video by the help of selected multimedia editors (LogoMotion, Pixlr, Go Animate, Diagramly, InkScape, Audacity, Anvil Studio, Magix Music Maker, CamStudio, Windows Movie Maker, FormatFactory).

## **Recommended literature:**

- 1. LACHS, V. Making Multimedia in the Classroom. London: RoutledgeFalemer, 2000. ISBN 0415216842.
- 2. GÖBEL, S. et al. Technologies for Interactive Digital Storytelling and Entertainment (LNCS 4326). Darmstadt: Springer, 2006. ISBN 3540499342.
- 3. ADÁMEK, R. et al. Moderná didaktická technika v práci učiteľa. Elfa, s.r.o., Košice. 2010. ISBN 978-80-8086-135-3.
- 4. CHALUPA, R. Fotografie, hudba a video ve Windows XP. 2005. ISBN 8072269313.

### Course language:

### Course assessment

Total number of assessed students: 7

A	В	С	D	Е	FX
28.57	28.57	14.29	14.29	14.29	0.0

Provides: doc. RNDr. L'ubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

Course name: Development and processing of multimedia

TSM1b/15

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:**

Evaluation of particular assignments.

100% / 0%

Project containing programmed multimedia.

## **Learning outcomes:**

Program design and multimedia applications.

Understand the basic principles and procedures for multimedia programming.

### **Brief outline of the course:**

Principles of Programming bitmap graphics, bitmap animation, vector graphics, vector animation, audio and video.

## **Recommended literature:**

DUNN, J. R. Digitální video. 2003. ISBN 8025100383.

Audacity: Programování v Conquista. [online] Dostupné na internete: <a href="http://">http://

audacity.sourceforge.net/help/nyquist2>.

ARMSTRONG, J., DEHAAN, J. Macromedia Flash 8 - výukový průvodce. 2006. ISBN

8025103358.

## Course language:

### Course assessment

Total number of assessed students: 5

A	В	С	D	Е	FX
20.0	60.0	20.0	0.0	0.0	0.0

Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/

**Course name:** Creating Text Teaching Aids

TTUP/15

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:

**Course assessment** 

Total number of assessed students: 103

Α	В	С	D	Е	FX
48.54	33.98	10.68	4.85	1.94	0.0

Provides: PaedDr. Renáta Orosová, PhD., Mgr. Katarína Petríková, PhD.

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ Cour

Course name: Sports Activities I.

TVa/11

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:

**Course assessment** 

Total number of assessed students: 10457

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
88.25	0.0	0.0	0.0	0.0	0.02	7.81	3.92

**Provides:** Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočníková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/

Course name: Sports Activities II.

TVb/11

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:

**Course assessment** 

Total number of assessed students: 9779

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.09	0.61	0.02	0.0	0.0	0.02	10.36	3.9

**Provides:** Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočníková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., Mgr. Marcel Čurgali, doc. PhDr. Ivan Šulc, CSc.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/ Co

Course name: Sports Activities III.

TVc/11

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:

**Course assessment** 

Total number of assessed students: 6188

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
89.66	0.03	0.0	0.0	0.0	0.0	4.36	5.95

**Provides:** PaedDr. Jana Potočníková, PhD., Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.

Date of last modification: 23.02.2017

**Approved:** Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, CSc.Guaranteedoc. RNDr. Katarína Kimáková, CSc.

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚTVŠ/

Course name: Sports Activities IV.

TVd/11

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:

**Course assessment** 

Total number of assessed students: 4644

abs	abs-A	abs-B	abs-C	abs-D	abs-E	n	neabs
85.66	0.32	0.04	0.0	0.0	0.0	6.61	7.36

**Provides:** Mgr. Marcel Čurgali, Mgr. Peter Bakalár, PhD., Mgr. Dana Dračková, PhD., Mgr. Agata Horbacz, PhD., Mgr. Dávid Kaško, Mgr. Zuzana Küchelová, PhD., PaedDr. Jana Potočníková, PhD., doc. PaedDr. Ivan Uher, PhD., Mgr. Marek Valanský, prof. RNDr. Stanislav Vokál, DrSc., Mgr. Aurel Zelko, PhD., doc. PhDr. Ivan Šulc, CSc.

Date of last modification: 23.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

**Course name:** Introduction to computer graphics

UGR1/15

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., 3.

Course level: I., II.

**Prerequisities:** 

## **Conditions for course completion:**

## **Learning outcomes:**

To provide the students with knowledge of graphics algorithms and basic principles of computer graphics.

## **Brief outline of the course:**

Graphics hardware, input and output devices. Color models, palettes. Raster graphics algorithms for drawing 2D primitives. Filling and clipping. Curve modeling, interpolations and approximations, spline forms, Bézier curves, B-splines, surfaces. Homogenous coordinates, affine transformations, perspective and parallel projections. Visible-surface determination, illumination and shading. Rendering techniques, photorealism, textures, ray tracing, radiosity. Object representations, computer animation, virtual reality.

### **Recommended literature:**

FOLEY, J. D., van DAM, A., FEINER, S., HUGHES, J.: Computer Graphics: Principles and Practice, Addison-Wesley, 1991

MORTENSON, M.E.: Geometric modeling, 2.ed., Willey, 1997

## Course language:

## Course assessment

Total number of assessed students: 273

A	В	С	D	Е	FX
14.65	8.79	13.55	23.08	30.77	9.16

Provides: doc. RNDr. Gabriel Semanišin, PhD., RNDr. Rastislav Krivoš-Belluš, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/

**Course name:** Introduction to neural networks

UNS1/15

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., 3.

Course level: I., II.

**Prerequisities:** 

## **Conditions for course completion:**

## **Learning outcomes:**

To understand and to know applications of basic paradigms of neural networks. To learn working with software for neural network models.

### **Brief outline of the course:**

Basic models of computational units - neurons (linear threshold gates, polynomial threshold gates, perceptrons), their computational capability, algorithms of adaptations. Feed-forward neural networks, back propagation algorithm. Hopfield neural networks. ART neural networks. Using neural networks to solving of problems. Genetic and evolution algorithms.

### **Recommended literature:**

J. Hertz, A.Krogh, R.G. Palmer: Introduction to the theory of neural computation, Addison Wesley, 1991

HASSOUN, M. H.: Fundamentals of artificial neural networks, The MIT Press, 1995

### **Course language:**

### **Course assessment**

Total number of assessed students: 393

A	В	С	D	Е	FX
9.92	16.03	23.66	20.87	24.68	4.83

Provides: doc. RNDr. Gabriela Andrejková, CSc., RNDr. Ľubomír Antoni, PhD.

Date of last modification: 09.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course name: Úvod do psychológie náboženstva **Course ID:** KPPaPZ/UPN/17 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: Course assessment Total number of assessed students: 0

A	В	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

Provides: Mgr. Jozef Benka, PhD. et PhD.

Date of last modification: 25.05.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: The Art of Aiding by Verbal Exchange KPPaPZ/UPR/15 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: Course assessment Total number of assessed students: 82 В  $\mathbf{C}$ D Е FX Α

 A
 B
 C
 D
 E
 FX

 92.68
 2.44
 3.66
 1.22
 0.0
 0.0

Provides: Mgr. Ondrej Kalina, PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ Cour

**Course name:** Introduction to Ecology

VEK1/03

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:** 

## **Conditions for course completion:**

## **Learning outcomes:**

Fundamental parameters and relations in ecological science.

### **Brief outline of the course:**

Ecological factors and relations in environment (air, water, soil); influence of ecological factors on individuals (morphological adaptations, behavioral reactions); populations and communities; ecosystems (impact assessment); conservation and biodiversity.

## **Recommended literature:**

Begon, M., Harper, J. L., Townsend, C. L.: Ecology: individuals, populations, and communities. Blackwell Sci. Publ., 1990

# Course language:

## **Course assessment**

Total number of assessed students: 1461

A	В	С	D	Е	FX
19.78	15.54	24.44	18.34	12.66	9.24

Provides: prof. RNDr. Igor Hudec, CSc.

Date of last modification: 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚINF/ | Course name: Internet in education

VIV1/15

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:**

Assessment of preliminary assignments - design of a teleproject, design of an e-learning course lesson, design and implementation of a video-conference activity.

In final exam students will demonstrate an overview of using the Internet in education in written form and they will present and defend their final work focused on using the Internet in education (design and implementation of an e-learning course, teleproject, webquest, on-line competition, lesson exploiting several Internet sources and tools).

## **Learning outcomes:**

- 1. To acquire an overview of the possibilities of using the Internet in education.
- 2. To enhance skills for searching, acquiring, exchanging and presenting information via the Internet.
- 3. To design, develop and verify an Internet activity (e-learning course, teleproject, WebQuest, online competition, video lecture).

### **Brief outline of the course:**

Overview of using the Internet in education. Educational Web sites and search engines. Design, implementation and evaluation of e-learning courses. Educational teleprojects, online competitions, teleexperiments. Communicating via the Internet - forums, blogs, videoconferences, social networking. Social, medical, ethical and legal aspects of using the Internet.

### **Recommended literature:**

- 1. CONRAD, Rita-Marie DONALDSON, J. Ana (2011). Engaging the Online Learner: Activities and Resources for Creative Instruction. Jossey-Bass; Updated Edition edition 2011. ISBN 978-1118018194.
- 2. FREEDMAN, Terry (2010) The Amazing Web 2.0 Projects Book. http://www.terry-freedman.org.uk/web2\_2010/Amazing%20Web%202%20Projects %202%20online%20version.pdf
- 3. MANN, B. L. Selected Styles in Web-based Educational Research. Information Science Pub, 2005. ISBN 15-9140-732-X.
- 4. BARANOVIČ, R. et al. Internet pre stredné školy Učebnica Internetu. Praha : Computer Press, 2003. 275 s. ISBN 80-251-0088-X.

## Course language:

Course assessi	Course assessment						
Total number of assessed students: 150							
A	В	С	D	Е	FX		
15.33	33.33	21.33	14.67	12.0	3.33		

Provides: doc. RNDr. Ľubomír Šnajder, PhD., PaedDr. Ján Guniš, PhD.

**Date of last modification:** 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Co

Course name: Educational Counselling

KPPaPZ/VP/09

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:

**Course assessment** 

Total number of assessed students: 119

A	В	С	D	Е	FX
56.3	26.89	10.08	5.04	1.68	0.0

Provides: PhDr. Anna Janovská, PhD.

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice Faculty: Faculty of Science **Course ID:** Course name: Vývinová psychológia pre učiteľov KPPaPZ/VPU/17 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:

Course assessment

Total number of assessed students: 13

A	В	C	D	Е	FX
38.46	46.15	15.38	0.0	0.0	0.0

Provides: Mgr. Mária Bačíková, PhD.

Date of last modification: 25.05.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

**Course ID:** 

Course name: Slovak Language for Teachers

KSSFaK/VSJU/15

Course type, scope and the method:

Course type: Lecture

Recommended course-load (hours): Per week: 2 Per study period: 28

Course method: present

Number of credits: 2

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

Course level: II.

**Prerequisities:** 

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 40

A	В	C	D	E	FX
12.5	32.5	27.5	20.0	7.5	0.0

Provides: PhDr. Iveta Bónová, PhD., Mgr. Lucia Jasinská, PhD., Mgr. Lena Ivančová, PhD.

Date of last modification: 18.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: Course name: The Fundamentals of Pedagogico-Psychological Research

KPPaPZ/ZMPPV/15 | 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: KPPaPZ/PPgU/15 and KPE/PDU/15

**Conditions for course completion:** 

**Learning outcomes:** 

**Brief outline of the course:** 

**Recommended literature:** 

Course language:

**Course assessment** 

Total number of assessed students: 297

A	В	C	D	E	FX
14.48	24.58	24.92	21.89	13.8	0.34

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

Date of last modification: 16.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚBEV/ | Course na

**ZOG1/03** 

**Course name:** Zoogeography

Course type, scope and the method:

Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

**Number of credits:** 6

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

Course level: I., II.

## **Prerequisities:**

## **Conditions for course completion:**

Active participation in seminars.

Preparation of oral presentation to selected topic.

Semestral written test.

Oral examination.

## **Learning outcomes:**

The main goal of the subject is to get knowledge on the basic reasons of recent distribution of the animals on the Earth, zoogeographic regionalization of the Earth's surface and human influence on the faunal distribution in the history.

### **Brief outline of the course:**

This course will review our current understanding of the patterns of animal distribution and the processes that influence distributions of species and their attributes. Zoogeography will integrate information on the historical and current ecology, genetics, and physiology of animals and their interaction with environmental processes (continental drift, climate) in regulating geographic distributions. The course will emphasize descriptive and analytical approaches useful in hypothesis testing in zoogeography and will illustrate applied aspects of zoogeography (e.g. refuge design in conservation).

### Recommended literature:

Buchar, J., 1983: Zoogeografie. SPN Praha

Darlington, P.J., 1998: Zoogeography: The geographical distribution of animals. Krieger, USA Lomolino M.V., Brown J.H., Riddle B. R., 2005: Biogeography. Sinauer Associates, 1-845 Plesník, P., Zatkalík, F., 1996: Biogeografia. Vysokoškolské skriptá, PríFUK Bratislava

## Course language:

### **Course assessment**

Total number of assessed students: 845

Α	В	С	D	Е	FX
23.2	23.55	24.85	18.22	8.17	2.01

Provides: doc. RNDr. Ľubomír Kováč, CSc.

**Date of last modification:** 24.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová,

**COURSE INFORMATION LETTER** University: P. J. Šafárik University in Košice Faculty: Faculty of Science Course ID: KPE/ Course name: Essentials of Special Education ZSP/15 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: Course assessment Total number of assessed students: 194 В  $\mathbf{C}$ D E FX Α

Provides: Mgr. Lucia Diheneščíková, PhD.

36.08

Date of last modification: 07.02.2017

35.05

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

8.25

2.06

0.0

18.56

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: KPE/

Course name: Experiential Education

**ZZP/12** 

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:

**Course assessment** 

Total number of assessed students: 143

Α	В	С	D	Е	FX
36.36	44.76	16.08	2.8	0.0	0.0

Provides: PaedDr. Renáta Orosová, PhD., prof. Volodymyr Starosta, DrSc.

Date of last modification: 07.02.2017

Approved: Guaranteedoc. RNDr. Stanislav Krajči, PhD. Guaranteeprof. PhDr. Ol'ga Orosová,

University: P. J. Šafá	University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	cience					
Course ID: ÚTVŠ/ ÚTVŠ/CM/13						
Course type, scope a Course type: Practic Recommended cou Per week: Per stud Course method: pro	ce rse-load (hours): ly period: 36s					
Number of credits: 2	2					
Recommended seme	ster/trimester of the cours	e:				
Course level: I., II.						
Prerequisities:						
Conditions for cours	se completion:					
Learning outcomes:						
Brief outline of the c	course:					
Recommended litera	nture:					
Course language:						
Course assessment Total number of asse	ssed students: 15					
	abs	n				
26.67 73.33						
Provides: Mgr. Alena	a Buková, PhD., Mgr. Agata	Horbacz, PhD.				
Date of last modifica	ntion: 23.02.2017					
	edoc. RNDr. Stanislav Krajč NDr. Katarína Kimáková, C	i, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, Sc.				

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: KSSFaK/ ČGUAP/15	KSSFaK/			
Course type, scope a Course type: Lectur Recommended cour Per week: 2 Per stu Course method: pre	re rse-load (hours): dy period: 28			
Number of credits: 2				
Recommended seme	ster/trimester of the cours	e: 2.		
Course level: II.				
Prerequisities:				
Conditions for cours	e completion:			
<b>Learning outcomes:</b>				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Course assessment Total number of asses	ssed students: 18			
	abs n			
	100.0 0.0			
Provides: doc. PaedDr. Ivica Hajdučeková, PhD.				
Date of last modifica	tion: 18.02.2017			
<b>Approved:</b> Guaranteedoc. RNDr. Stanislav Krajči, PhD.Guaranteeprof. PhDr. Ol'ga Orosová, CSc.Guaranteedoc. RNDr. Katarína Kimáková, CSc.				