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University: P. J. Šafá	University: P. J. Šafárik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ IG/04	1		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	r <b>se-load (hours): y period:</b> esent		
Number of ECTS cr			
	ster/trimester of the cours	e: 6., 8.	
Course level: III.			
Prerequisities:			
Conditions for course completion:			
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended literature:			
Course language:			
Notes:			
Course assessment Total number of assessed students: 184			
	abs n		
100.0 0.0			
Provides:			
Date of last modifica	Date of last modification: 03.05.2015		
Approved:			

	University:	ΡJ	Šafárik	University	v in Košice
I	University.	1	Salarik	Oniversity	

Faculty: Faculty of Science

**Course ID:** ÚCHV/ **Course name:** Atomic and Molecular Spectroscopy AMS3/05

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

Number of ECTS credits: 8

Recommended semester/trimester of the course: 2.

Course level: III.

**Prerequisities:** 

**Conditions for course completion:** 

#### Learning outcomes:

Advanced theoretical and practical knowledge of the methods of atomic and molecular spectroscopy.

#### Brief outline of the course:

Enhanced information about atomic absorption and emission spectral methods. History of the spectral methods development and their use in analytical practice. Optical analytical methods, principles, classification. Theoretical principles of spectroscopy. Experimental basis of spectral methods.

Atomic absorption spectrometry. Atomic emission spectrometry (optical emission spectrometry). Atomic fluorescence spectrometry. Plasma Mass Spectrometry. Mass spectrometry. Spectral methods based on the X-rays observation and observation of the released electrons.

Absorption spectroscopy in the visible and UV region. Emission spectroscopy of molecules. Vibration-rotation spectroscopy in analytical chemistry. Infrared and Raman spectrometry, nuclear magnetic resonance, electron paramagnetic resonance: principles, development in analytical chemistry. Automation and miniaturization of spectral methods. Hybrid spectral methods. Organic reagents. Ionic associates with basic dyes.

#### **Recommended literature:**

Günzler H., Wiliams A.: Handbook of Analytical Techniques. Wiley-VCH, 2001.

Skoog D. A., et al: Principle of Instrumental Analysis, Thomson Brooks/Cole, 2007.

Welz B., Sperling M.: Atomic Absorption Spectrometry, Wiley-VCH, 1998.

Rios, A. Escarpa, B. Simonet: Miniaturization of Analytical Systems: Principles, Designs and Applications. Wiley, 2009

D. Harvey: Modern Analytical Chemistry, McGraw-Hill Companies, Inc., 2000

#### **Course language:**

Notes:

<b>Course assessment</b> Total number of assessed students: 15		
N P		
0.0 100.0		
Provides: prof. Dr. Yaroslav Bazel', DrSc., doc. Ing. Viera Vojteková, PhD.		
Date of last modification: 03.05.2015		
Approved:		

University: P. J. Šafárik University in Košice	Universi	P. J. Š	afárik	University	v in Košice
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Faculty: Faculty of Science

**Course ID:** ÚCHV/ **Course name:** Chemometrics and Experiment Metodics ACM3/05

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 2 Per study period: 28 / 28

Course method: present

Number of ECTS credits: 8

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

Course level: III.

Prerequisities:

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

On the basis of individual work.

On the basis of the continuous assessment and examination.

#### Learning outcomes:

Learning of the basic methodology of experimentation and statistical evaluation of the measurements.

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

The basic methodology of experimentation. The sources of the scientific information. Literature search. Choice and classification of scientific journals. The sample treatment. (sampling, measurements, evaluation of results). Knowledge acquisition of the correct and theoretically-based processing and evaluation of results of chemical analysis: Signal Processing; Calibration, Data Processing. Knowledge acquisition of the methods and methodologies for results evaluation. Decision-making statistics. Information about validation of the method, about metrology, and accreditation of the laboratories. Conception of the uncertainties of results and methods. Practical application of the theoretical knowledge gained during the course.

#### **Recommended literature:**

Brereton R. G.: Chemometrics, Wiley, 2003.

Günzler H., Wiliams A.: Handbook of Analytical Techniques. Wiley-VCH, 2001.

#### **Course language:**

Notes:

#### Course assessment

Total number of assessed students: 21

Ν	Р	
0.0	100.0	
Provides: prof. Dr. Yaroslav Bazel', DrSc., doc. Ing. Viera Vojteková, PhD.		
Date of last modification: 03.05.2015		

Approved:

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ Course name: Chromatographic Separation Methods CHR3/05		
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present		
Number of ECTS credits: 8		
Recommended semester/trimester of the course: 2.		
Course level: III.		
Prerequisities:		
Conditions for course completion:		
<b>Learning outcomes:</b> Basic and advanced theory of chromatographic separation methods and their possibilities and us in research and analytical practice.		
Brief outline of the course:		
Recommended literature: Skoog D.A., Leary J.J.,Principles of Instrumental Analysis, Saunders, 1997. Lehotay J., Separačné metódy v analytickej chémii,STU Bratislava 2009.		
Course language:		
Notes:		
Course assessment Total number of assessed students: 9		
N P		
0.0 100.0		
Provides: prof. RNDr. Andrej Oriňak, PhD., doc. RNDr. Taťána Gondová, CSc.		
Date of last modification: 03.05.2015		
Approved:		

University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	Faculty: Faculty of Science			
Course ID: ÚCHV/ CZC/04				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period: esent			
Number of ECTS cr				
	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for course completion:				
Learning outcomes:				
Brief outline of the course:				
Recommended literature:				
Course language:				
Notes:				
<b>Course assessment</b> Total number of asse	ssed students: 49			
	abs n			
100.0 0.0				
Provides:				
Date of last modifica	tion:			
Approved:				

University: P. J. Šafá	University: P. J. Šafárik University in Košice		
Faculty: Faculty of S	Faculty: Faculty of Science		
Course ID: ÚCHV/ CDC/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent		
Number of ECTS cr			
	ster/trimester of the cours	se:	
Course level: III.			
Prerequisities:	Prerequisities:		
Conditions for course completion:			
Learning outcomes:			
Brief outline of the c	Brief outline of the course:		
Recommended litera	Recommended literature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 1		
abs n			
100.0 0.0			
Provides:		·	
Date of last modifica	tion:		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of Science			
Course ID: ÚCHV/ CM/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period: esent		
Number of ECTS cr			
	ster/trimester of the cou	rse:	
Course level: III.			
Prerequisities:	Prerequisities:		
Conditions for course completion:			
Learning outcomes:			
Brief outline of the course:			
Recommended literature:			
Course language:			
Notes:	Notes:		
<b>Course assessment</b> Total number of asse	ssed students: 3		
	abs n		
100.0 0.0			
Provides:		•	
Date of last modifica	ntion:		
Approved:			_

University: P. J. Šafárik University in Košice			
Faculty: Faculty of S	Faculty: Faculty of Science		
Course ID: ÚCHV/ SDPR/04	Course ID: ÚCHV/ Course name: Co-worker of a Local Project		
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent		
Number of ECTS cr			
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:	Prerequisities:		
Conditions for course completion:			
Learning outcomes:			
Brief outline of the course:			
Recommended literature:			
Course language:			
Notes:			
Course assessment Total number of assessed students: 446			
abs n			
99.78 0.22			
Provides:			
Date of last modifica	ition:		
Approved:			

University: P. J. Šafárik University in Košice			
Faculty: Faculty of S	Faculty: Faculty of Science		
<b>Course ID:</b> ÚCHV/ SMPR/04	5		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	r <b>se-load (hours):</b> l <b>y period:</b> esent		
Number of ECTS cr			
	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for course completion:			
Learning outcomes:			
Brief outline of the course:			
Recommended literature:			
Course language:			
Notes:	Notes:		
<b>Course assessment</b> Total number of asse	ssed students: 38		
abs n			
100.0 0.0			
Provides:			
Date of last modifica	tion:		
Approved:			

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: ÚCHV/ ODZP/2014/15	Course name: Defence of	Doctoral Thesis	
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	r <b>se-load (hours):</b> y period: esent		
Number of ECTS cr			
	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	iture:		
Course language:			
Notes:	Notes:		
Course assessment Total number of asse	ssed students: 50		
	N P		
0.0 100.0			
Provides:	Provides:		
Date of last modifica	tion: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ DZS/15			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:		
Number of ECTS cr	edits: 20		
Recommended seme	ster/trimester of the co	urse:	
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the c	course:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 51		
	N P		
0.0 100.0			
Provides:		•	
Date of last modifica	ntion: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ EACH3/05	Course ID: ÚCHV/ Course name: Electroanalytical Chemistry EACH3/05		
Course type, scope a Course type: Lectur Recommended cou Per week: 2 / 2 Per Course method: pro	re / Practice <b>rse-load (hours):</b> study period: 28 / 28		
Number of ECTS cr	edits: 5		
Recommended seme	ster/trimester of the cours	e: 4	
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the o	course:		
Recommended litera	ature:		
Course language:			
Notes:	· · · · · · · · · · · · · · · · · · ·		
<b>Course assessment</b> Total number of asse	ssed students: 3		
	N P		
0.0 100.0			
Provides: doc. RND	. Andrea Straková Fedorkov	á, PhD.	
Date of last modifica	ntion: 20.09.2017		
Approved:			

University: P. J.	Šafárik Univers	ity in Košice			
Faculty: Faculty	of Science				
Course ID: CJP/ AJD1/07	Course na	Course name: English Language for PhD Students 1			
Course type, sco Course type: Pr Recommended Per week: 2 Per Course method	ractice course-load (h r study period:	ours):			
Number of ECT	S credits: 2				
Recommended s	emester/trimes	ster of the cours	<b>e:</b> 1.		
Course level: III.					
Prerequisities:					
Conditions for c Written assignment distance mode of	ents - profession	nal CV, short aca	demic biography	y (200-350 words	).
Learning outcon	nes:				
Brief outline of t	the course:				
Recommended li	iterature:				
Course language	<b>2</b> •				
Notes:					
Course assessme Total number of		ts: 654			
N	Ne	Р	Pr	abs	neabs
0.0	0.0	51.38	0.0	48.62	0.0
Provides: PhDr. 1	Helena Petruňo	vá, CSc., Mgr. Z	uzana Kolaříkov	vá, PhD.	
Date of last mod	ification: 11.02	2.2021			
Approved:					

	COURSE INFORMATION LETTER		
University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: CJP/ AJD2/07			
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: pre	ce rse-load (hours): ıdy period: 28		
Number of ECTS cr	redits: 3		
Recommended seme	ester/trimester of the course: 2.		
Course level: III.			
Prerequisities:			
	struction. Online consultations. cordance with the exam requirements (https://www.upjs.sk/filozoficka-fakulta/		
(selected aspects of pragmatic competence	udents'language skills, improvement of students'linguistic competencies English pronunciation, vocabulary and syntax), development of students's ce (selected aspects of functional grammar) with focus on English for academic s. B2/C1 level of lanugage competence (according to CEFR.)		
(noun and verb colloc language, etc.), select etc.), selected function	course: academic and professional English with focus on vocabulary development cations, phrasal verbs, prepositional phrases, word-formation, formal/informati ted aspects of English grammar (prepositions, grammar tenses, passive voice onal grammar (expressing opinion, cause/effect, arguments, examples, etc.). cation. Cross-language interference.		
Recommended litera	ature:		
UPJŠ Košice, 2015 McCarthy, M., O'Del Štepánek, L., J. De H 2011 Blašková, K.: Handb Dušková, L. a kol.: H Bratislava, 1982 Armer, T.: Cambridg Porter, D.: Check you	<ul> <li>nňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica).</li> <li>II, F.: Academic Vocabulary in Use. CUP, 2008</li> <li>Iaff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s.</li> <li>book of English for Postgraduate Students. Vyd. SPRINT Bratislava, 2007</li> <li>Hovorová angličtina pre vedeckých a odborných pracovníkov. Veda.</li> <li>ge English for Scientists. CUP, 2011</li> <li>ur vocabulary for Academic English. Macmillan Publishers Limited, 2008</li> <li>Dictionary for students of English. OUP, 2002</li> </ul>		
lms.upjs.sk			

B2/C1 level according to CEFR					
Notes:					
Course assessm Total number of	ent f assessed studen	ts: 649			
Ν	Ne P Pr abs neabs				
0.31	0.0	93.07	1.23	5.39	0.0
Provides: PhDr.	. Helena Petruňo	vá, CSc., Mgr. Zu	uzana Kolaříková	i, PhD.	
Date of last mo	dification: 10.02	2.2021			
Approved:					

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ SSOL/04	······································		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	r <b>se-load (hours): y period:</b> esent		
Number of ECTS cr	edits: 2		
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	ture:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 195		
	abs n		
100.0 0.0			
Provides:			
Date of last modifica	tion: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ MK/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent		
Number of ECTS cr			
Recommended seme	ster/trimester of the cour	rse:	
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the c	course:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 214		
	abs n		
100.0 0.0			
Provides:			
Date of last modifica	ntion: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of Science			
Course ID: ÚCHV/ ZKC/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent		
Number of ECTS cr	edits: 20		
Recommended seme	ster/trimester of the cours	2:	
Course level: III.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	ature:		
Course language:			
Notes:			
Course assessment Total number of asse	ssed students: 302		
	abs n		
99.67 0.33			
Provides:			
Date of last modifica	ition: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ ZNC/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:		
Number of ECTS cr	edits: 5		
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours	e completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	iture:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 21		
	abs n		
100.0 0.0			
Provides:			
Date of last modifica	tion: 03.05.2015		
Approved:			

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
<b>Course ID:</b> ÚCHV/ NEM/04	I I I I I I I I I I I I I I I I I I I	
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent	
Number of ECTS cr		
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours	e completion:	
Learning outcomes:		
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
<b>Course assessment</b> Total number of asse	ssed students: 9	
abs n		
100.0 0.0		
Provides:		
Date of last modifica	tion:	
Approved:		

University: P. J. Šafá	rik University in Koš	lice	
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ DK/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent		
Number of ECTS cr			
Recommended seme	ster/trimester of the	e course:	
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the c	ourse:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 116		
	abs n		
100.0 0.0			
Provides:			
Date of last modifica	ition:		
Approved:			

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of Science				
Course ID: ÚCHV/ DKZU/04				
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent			
Number of ECTS cr	edits: 4			
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
<b>Course assessment</b> Total number of asse	ssed students: 216			
	abs n			
100.0 0.0				
Provides:	Provides:			
Date of last modifica	ition: 03.05.2015			
Approved:				

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of Science					
<b>Course ID:</b> ÚCHV/ DKC/04					
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period:				
Number of ECTS cr	edits: 15				
Recommended seme	ster/trimester of the co	urse:			
Course level: III.					
Prerequisities:					
Conditions for cours	se completion:				
Learning outcomes:					
Brief outline of the o	course:				
Recommended litera	ature:				
Course language:					
Notes:					
<b>Course assessment</b> Total number of asse	ssed students: 10				
	abs n				
100.0 0.0					
Provides:		<u> </u>			
Date of last modifica	ntion: 03.05.2015				
Approved:					

University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science				
Course ID: ÚCHV/ DNC/04				
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent			
Number of ECTS cr	edits: 5			
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
<b>Course assessment</b> Total number of asse	ssed students: 18			
abs n				
100.0 0.0				
Provides:	Provides:			
Date of last modifica	Date of last modification: 03.05.2015			
Approved:	Approved:			

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ MET3/05			
Course type, scope a Course type: Lectur Recommended cou Per week: 2 / 2 Per Course method: pro	re / Practice rse-load (hours): study period: 28 / 28		
Number of ECTS cr	edits: 8		
Recommended seme	ster/trimester of the cours	<b>e:</b> 4.	
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the o	course:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 9		
	Ν	Р	
0.0 100.0			
<b>Provides:</b> prof. Dr. Y Andruch, DSc.	aroslav Bazel', DrSc., doc. F	NDr. Katarína Reiffová, PhD., prof. Mgr. Vasiľ	
Date of last modifica	ation: 03.05.2015		
Approved:			

University: P. J. Šafárik University in Košice					
Faculty: Faculty of S	Faculty: Faculty of Science				
Course ID: ÚCHV/ MAS3/05	ourse ID: ÚCHV/Course name: Miniaturization of Analytical SystemsIAS3/05				
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	e / Practice rse-load (hours): study period: 28 / 28				
Number of ECTS cr	edits: 8				
Recommended seme	ster/trimester of the cours	se: 1.			
Course level: III.					
Prerequisities:					
Conditions for cours	e completion:				
Learning outcomes:					
electrochemical sense of biosensors in b Miniaturization of se	cation of sensors. Chemical ors. Electrode with liquid mo biotechnology. Biosensors nsors, equipment and devic	sensors. Electrochemical sensors . Potentiometric embrane. Biosensors. Optical sensors. Application for medicine and environment monitoring. es. Flow injection analysis .			
1	of Chemical Sensors, Plen	um Press, London, 1989. nsors, Springer, 2004, 421 p.			
Course language:					
Notes:					
<b>Course assessment</b> Total number of asses	Course assessment Total number of assessed students: 18				
	N P				
	0.0 100.0				
Provides: prof. Dr. Ya	aroslav Bazel', DrSc., prof.	Mgr. Vasil' Andruch, DSc.			
Date of last modifica	tion: 03.05.2015				
Approved:					

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of Science				
Course ID: ÚCHV/ NZ/04				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	r <b>se-load (hours): y period:</b> esent			
Number of ECTS cr	edits: 2			
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
<b>Course assessment</b> Total number of asses	ssed students: 173			
	abs n			
100.0 0.0				
Provides:				
Date of last modifica	tion: 03.05.2015			
Approved:	Approved:			

University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science				
<b>Course ID:</b> ÚCHV/ PVS/04				
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period: esent			
Number of ECTS cr				
	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
<b>Course assessment</b> Total number of asses	ssed students: 0			
abs n				
0.0 0.0				
Provides:				
Date of last modification:				
Approved:				

University: P. J. Šaf	ärik University	n Košice		
Faculty: Faculty of	Science			
<b>Course ID:</b> KPE/ PgVU/17	Course name	: Pedagogy for university	teachers	
Course type, scope Course type: Lect Recommended co Per week: Per stu Course method: p	ure <b>urse-load (hour</b> <b>dy period:</b> 28s			
Number of ECTS c	redits: 5			
Recommended sem	ester/trimester	of the course:		
Course level: III.				
Prerequisities:				
Conditions for cou	rse completion:			
Learning outcomes	:			
Brief outline of the	course:			
Recommended liter	rature:			
Course language:				
Notes:				
Course assessment Total number of ass	essed students: 3	33		
abs		n	neabs	
100.0 0.0 0.0				
Provides: doc. Paed	Dr. Renáta Oros	ová, PhD.	-	
Date of last modifie	cation: 08.06.20	21		
Approved:				

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ VYS/04			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period: esent		
Number of ECTS cr			
	ster/trimester of the cou	irse:	
Course level: III.			
Prerequisities:			
<b>Conditions for cours</b>	se completion:		
Learning outcomes:			
Brief outline of the c	course:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 182		
abs n			
100.0 0.0			
Provides:			
Date of last modifica	ition:		
Approved:			

University: P. J. Šafárik Univer	rsity in Košice		
Faculty: Faculty of Science			
Course ID: Course n KPPaPZ/PsVU/17	name: Psychology for University I	Lecturers	
Course type, scope and the me Course type: Lecture Recommended course-load ( Per week: Per study period: Course method: present	hours):		
Number of ECTS credits: 5			
Recommended semester/trime	ester of the course:		
Course level: III.			
Prerequisities:			
Conditions for course complete	tion:		
Learning outcomes:			
psychology, social psychology the university environment. Recommended literature:	chology, psychology of emotions , educational psychology and healt ng social psychology to education.	th psychology with application to	
Schneider F., Gruman J., Coutt Fry, H., Ketteridge, S., & Mars education: Enhancing academic Mareš, J.: Pedagogická psycho Kniha psychologie. Universum Čáp, J., Mareš, J.: Psychologie	s L.–Sage Publications, Inc, 205-2 hall, S. (2008). A handbook for tea c practice. Routledge. logie. Portál, 2013.	28. aching and learning in higher	
Course language:			
Notes:			
Course assessment Total number of assessed stude	nts: 37		
abs	n	neabs	
100.0 0.0 0.0			
Provides: PhDr. Anna Janovska	á, PhD.		
Date of last modification: 28.0	06 2021		

Approved:

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of Science				
Course ID: ÚCHV/ RZ/04	$\mathcal{J}$			
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period: esent			
Number of ECTS cr				
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours	e completion:			
Learning outcomes:				
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
<b>Course assessment</b> Total number of asse	ssed students: 321			
	abs n			
100.0 0.0				
Provides:				
Date of last modifica	tion: 03.05.2015			
Approved:				

University: P. J. Šafá	rik University in Kos	Sice			
Faculty: Faculty of S	cience				
<b>Course ID:</b> ÚCHV/ SCI/04	Course name: SCI	Citation			
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period: esent				
Number of ECTS cr					
Recommended seme	ster/trimester of the	e course:			
Course level: III.					
Prerequisities:					
<b>Conditions for cours</b>	se completion:				
Learning outcomes:					
Brief outline of the c	ourse:				
<b>Recommended litera</b>	ature:				
Course language:					
Notes:					
<b>Course assessment</b> Total number of asse	ssed students: 206				
	abs n				
100.0 0.0					
Provides:		•			
Date of last modifica	ition:				
Approved:					

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: Dek. PF Course name: Spring School for PhD Students JPJŠ/JSD/14			
Course type, scope a Course type: Lectur Recommended cour Per week: Per stud Course method: pre	e rse-load (hours): y period: 4d		
Number of ECTS credits: 2			
Recommended semester/trimester of the course:			
Course level: III.			
Prerequisities:			
Conditions for course completion:			
Learning outcomes:			
Brief outline of the course:			
Recommended literature:			
Course language:			
Notes:			
<b>Course assessment</b> Total number of asses	ssed students: 154		
	abs	n	
100.0 0.0			
Provides: doc. RNDr. Marián Kireš, PhD.			
Date of last modification: 03.05.2015			
Approved:			

University: P. J. Šafárik University in Košice			
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ TZAC3/05	Course name: Theoretical basics of analytical chemistry		
Course type, scope a Course type: Lectur Recommended cour Per week: 2 / 2 Per Course method: pre	re / Practice rse-load (hours): study period: 28 / 28		
Number of ECTS credits: 8			
Recommended semester/trimester of the course: 1.			
Course level: III.			
Prerequisities:			
Conditions for course completion:			

Learning outcomes:

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

Analytical chemistry. Relationship between analytical chemistry and other scientific branches. History of analytical chemistry. Problems and trends in recent analytical chemistry. Objects of analysis. Instrumental equipment of a modern analytical laboratory. Research analytical chemistry and analytical practice. Validation of analytical methods. Factors important to bear in mind when choosing a proper method. Reasons of improper analytical results. Modern, highly selective methods of analysis. Speed and factors affecting the speed of analysis. Test and screening methods. Field analysis. Primary X-ray spectrometry, microprobe. Non-destructive methods of analysis, principle, utility. Distance analysis. Automation of analysis, examples. Flow analysis - FIA and SIA. Miniaturization of analytical measurements. Economic aspects of analysis. Analytical reaction, chemical equilibrium in solutions. Gravimetric. Volumetric. Instrumental methods of qualitative and quantitave determination of analytes. Absorption and emission spectroscopy, UV-VIS spectrometry, fluorescence and phosphorence spectrophotometry, emission and atomic absorption spectroscopy, infrared spectrometry, Raman spectroscopy, Roentgen spectroscopic methods, radiochemical methods, NMR spectroscopy, mass spectrometry. Electroanalytical methods (voltamperometry, potenciometry, electroseparation, coulometry and conductometry). Thermical analysis. Kinetic methods of analysis. Separation methods. Microextraction techniques (DLLME, SDME, SPME). Gas chromatography. Liquid chromatography, TLC, HPLC.

#### **Recommended literature:**

1. D. Harvey, Modern Analytical Chemistry, 2000, McGraw-Hill Companies, Inc.

2. H.H. Willard, L.L. Merritt, J.A. Dean, F.A. Settle, Instrumental Methods of Analysis, 1988, Wadsworth Publ. Co.

3. A. Rios, A. Escarpa, B. Simonet, Miniaturization of Analytical Systems, 2009, John Wiley &Sons, Ltd.

4. Jaromír Ružicka, Elo Harald Hansen, Flow Injection Analysis, 1988, John Wiley & Sons.5. John R. Dean, Extraction Techniques in Analytical Sciences, 2009, John Wiley & Sons.

#### **Course language:**

Notes:	
<b>Course assessment</b> Total number of assessed students: 24	
Ν	Р
0.0	100.0
<b>Provides:</b> prof. RNDr. Andrej Oriňak, PhD., prof Gondová, CSc., doc. RNDr. Katarína Reiffová, P Vasil' Andruch, DSc.	
Date of last modification: 03.05.2015	
Approved:	

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
<b>Course ID:</b> ÚCHV/ PDS/18	Course name: Writing Dissertation Work		
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period: esent		
Number of ECTS credits: 0			
Recommended semester/trimester of the course:			
Course level: III.			
Prerequisities:			
Conditions for cours	se completion:		
Learning outcomes:			
Brief outline of the o	course:		
Recommended litera	ature:		
Course language:			
Notes:			
<b>Course assessment</b> Total number of asse	ssed students: 6		
	Ν	Р	
	0.0	100.0	
Provides:			
Date of last modifica	ntion:		
Approved:			