

CONTENT

1. 2D chémia a nanotechnológia.....	2
2. Acquirement of Internal Grant.....	3
3. Citation in the International Scientific Journal.....	4
4. Citation in the Local Scientific Journal.....	5
5. Citation in the Monograph.....	6
6. Co-worker of a Local Project.....	7
7. Co-worker of an International Project.....	8
8. Defence of Doctoral Thesis.....	9
9. Direct Pedagogical Activities.....	10
10. Direct Pedagogical Activities.....	11
11. Dissertation examination.....	12
12. English Language for PhD Students 1.....	13
13. English Language for PhD Students 2.....	14
14. Environmental Chemistry.....	16
15. International Conference.....	17
16. International Currented Journal.....	18
17. International Non-Currented Journal.....	19
18. Introduction of a New Experimental Method.....	20
19. Kinetics and Catalysis.....	21
20. Local Conference.....	23
21. Local Conference with Foreign Participation.....	24
22. Local Currented Journal.....	25
23. Local Non-Currented Journal.....	26
24. Mass Spectrometric Identification.....	27
25. Membership in a Conference organizing Committee.....	28
26. Methods of Chemical Research.....	29
27. Modelling of Physicochemical Processes.....	31
28. New Trends in Analytical Chemistry.....	32
29. Not-Reviewed International or Local Proceedings.....	34
30. Patents, Inventions, Software.....	35
31. Pedagogy for university teachers.....	36
32. Pokročilá fyzikálna chémia 1.....	37
33. Pokročilá fyzikálna chémia 2.....	38
34. Pokročilý kurz chromatografie.....	39
35. Presentation in Seminar.....	40
36. Psychology for University Lecturers.....	41
37. Review of a Bachelor Thesis.....	43
38. Reviewed International or Local Proceedings.....	44
39. SCI Citation.....	45
40. Study Stay Abroad.....	46
41. Supervision of Bachelor Thesis.....	47
42. Supervision of a Students Scientific Work.....	48
43. Writing Dissertation Work.....	49

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ CHN/2014/15	Course name: 2D chémia a nanotechnológia
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: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion: Final examination.	
Learning outcomes:	
Brief outline of the course: Explanation of the processes running at nanostructured substrates by quantum and computer chemistry. Characterisation by a methods of surface analysis.	
Recommended literature: Somorjai,G.A.: Introduction to surface chemistry and catalysis, Wiley, New York, 1994.	
Course language:	
Notes:	
Course assessment Total number of assessed students: 9	
abs	n
100.0	0.0
Provides: prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Renáta Oriňaková, DrSc.	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ IG/04	Course name: Acquirement of Internal Grant
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 179	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ CZC/04	Course name: Citation in the International Scientific Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 44	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ CDC/04	Course name: Citation in the Local Scientific Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 1	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ CM/04	Course name: Citation in the Monograph
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 3	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SDPR/04	Course name: Co-worker of a Local Project
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 399	
abs	n
99.75	0.25
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SMPR/04	Course name: Co-worker of an International Project
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 38	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

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 and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 30	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 43	
N	P
0.0	100.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PPC/04	Course name: Direct Pedagogical Activities
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 1	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 381	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PPC/04	Course name: Direct Pedagogical Activities
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 1	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 381	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DZS/15	Course name: Dissertation examination
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 46	
N	P
0.0	100.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice					
Faculty: Faculty of Science					
Course ID: CJP/AJD1/07		Course name: English Language for PhD Students 1			
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present					
Number of ECTS credits: 2					
Recommended semester/trimester of the course: 1.					
Course level: III.					
Prerequisites:					
Conditions for course completion: Written assignments - professional CV, short academic biography (200-350 words). distance mode of instruction using MS teams					
Learning outcomes:					
Brief outline of the course:					
Recommended literature:					
Course language:					
Notes:					
Course assessment Total number of assessed students: 649					
N	Ne	P	Pr	abs	neabs
0.0	0.0	51.31	0.0	48.69	0.0
Provides: PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.					
Date of last modification: 11.02.2021					
Approved: prof. RNDr. Andrej Oriňak, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: CJP/AJD2/07	Course name: English Language for PhD Students 2
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: present	
Number of ECTS credits: 3	
Recommended semester/trimester of the course: 2.	
Course level: III.	
Prerequisites:	
Conditions for course completion: Distance mode of instruction. Online consultations. Test, oral exam in accordance with the exam requirements (https://www.upjs.sk/filozoficka-fakulta/cjp/doktorandi-upjs/)	
Learning outcomes: Development of students' language skills, improvement of students' linguistic competencies (selected aspects of English pronunciation, vocabulary and syntax), development of students' pragmatic competence (selected aspects of functional grammar) with focus on English for academic and specific purposes. B2/C1 level of language competence (according to CEFR.)	
Brief outline of the course: Specific aspects of academic and professional English with focus on vocabulary development (noun and verb collocations, phrasal verbs, prepositional phrases, word-formation, formal/informal language, etc.), selected aspects of English grammar (prepositions, grammar tenses, passive voice, etc.), selected functional grammar (expressing opinion, cause/effect, arguments, examples, etc.). Academic communication. Cross-language interference.	
Recommended literature: Kolaříková, Z., Petruňová, H., Tímková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2015 McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008 Štěpánek, L., J. De Haaf a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., 2011 Blašková, K.: Handbook of English for Postgraduate Students. Vyd. SPRINT Bratislava, 2007 Dušková, L. a kol.: Hovorová angličtina pre vedeckých a odborných pracovníkov. Veda. Bratislava, 1982 Armer, T.: Cambridge English for Scientists. CUP, 2011 Porter, D.: Check your vocabulary for Academic English. Macmillan Publishers Limited, 2008 Oxford Collocations Dictionary for students of English. OUP, 2002 lms.upjs.sk	
Course language:	

B2/C1 level according to CEFR					
Notes:					
Course assessment					
Total number of assessed students: 607					
N	Ne	P	Pr	abs	neabs
0.33	0.0	92.59	1.32	5.77	0.0
Provides: PhDr. Helena Petruňová, CSc., Mgr. Zuzana Kolaříková, PhD.					
Date of last modification: 10.02.2021					
Approved: prof. RNDr. Andrej Oriňak, PhD.					

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/EECH/03		Course name: Environmental Chemistry					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present							
Number of ECTS credits: 5							
Recommended semester/trimester of the course:							
Course level: II., III.							
Prerequisites:							
Conditions for course completion: Examination.							
Learning outcomes:							
Brief outline of the course: The subject of environmental chemistry. Matter cycles on Earth. Geochemical cycles. Carbon, nitrogen, sulphur, phosphorous cycles. Metals and environment. Special cycles. Earth atmosphere composition, functions of atmosphere. Physical and chemical processes in atmosphere. Atmospheric photochemistry. Pollutants in atmosphere and greenhouse effect. Models of greenhouse effects. Principles of air quality control. Energetic Earth balance. Water environment and pollutants monitored. Classification of pollutants and ways of elimination. Waste water cleaning processes. Analytical methods in environmental chemistry, applications. Soil analysis, biogeochemical processes. Acid rain, metal ions in soil. Environmental analysis, strategy and concepts.							
Recommended literature: 1. G. Schwedt: The Essential Guide to Environmental Chemistry, Wiley and Sons, London 2001 2. R.N. Reeve, J.D. Barnes: General Environmental Chemistry, Wiley, London 1994							
Course language:							
Notes:							
Course assessment Total number of assessed students: 107							
A	B	C	D	E	FX	N	P
49.53	20.56	16.82	2.8	3.74	0.0	0.0	6.54
Provides: doc. RNDr. Andrea Straková Fedorková, PhD.							
Date of last modification: 20.09.2017							
Approved: prof. RNDr. Andrej Oriňak, PhD.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ MK/04	Course name: International Conference
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 209	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ZKC/04	Course name: International Currented Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 284	
abs	n
99.65	0.35
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ZNC/04	Course name: International Non-Currented Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 21	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ NEM/04	Course name: Introduction of a New Experimental Method
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 8	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/ FKK1/03		Course name: Kinetics and Catalysis					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present							
Number of ECTS credits: 5							
Recommended semester/trimester of the course:							
Course level: II., III.							
Prerequisites:							
Conditions for course completion: Test. Examination.							
Learning outcomes: Detailed and particular explanation of different types of reactions, homogeneous and heterogeneous catalysis.							
Brief outline of the course: Classification of chemical reactions. Reaction rates. Rate laws. Reaction order. Elementary reactions. Complicated reactions. Theory of chemical kinetics. Experimental methods of chemical kinetics. Complex reactions mechanism. Explosions. Photochemical reactions. Essence of adsorption, types of adsorption, adsorption isotherms. Essence of catalytic processes. Catalysis influenced phenomena. Homogeneous and heterogeneous catalysis. Enzymatic catalysis.							
Recommended literature: P. W. Atkins : Physical Chemistry, Oxford University Presss, Oxford 1986, 1990, 1994, 1998. Richard I. Masel: Chemical Kinetics & Catalysis, Wiley-Interscience, 2001. I. CHORKENDORFF, J. W. NIEMANTSVERDRIET: Fundamentals of Kinetics and Catalysis, CONCEPTS OF MODERN CATALYSIS AND KINETICS, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, 2003.							
Course language:							
Notes:							
Course assessment Total number of assessed students: 42							
A	B	C	D	E	FX	N	P
71.43	4.76	2.38	0.0	0.0	0.0	0.0	21.43
Provides: prof. RNDr. Renáta Oriňáková, DrSc., RNDr. František Kaľavský							
Date of last modification: 20.09.2017							

Approved: prof. RNDr. Andrej Oriňak, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DK/04	Course name: Local Conference
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 110	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DKZU/04	Course name: Local Conference with Foreign Participation
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 4	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 207	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DKC/04	Course name: Local Currented Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 15	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 10	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ DNC/04	Course name: Local Non-Currented Journal
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 18	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/IMS1/03		Course name: Mass Spectrometric Identification					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present							
Number of ECTS credits: 4							
Recommended semester/trimester of the course:							
Course level: III.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course: General principles of mass spectrometry. Analytical mass spectrometry. Detectors in mass spectrometry and resolution. Quadrupoles, ion traps, TOF analyzers. Analytes ionization, molecular spectra obtained from different ion sources. Identification with MS. Determination of molar mass. Fragmentation, spectra, and structural information. Identification by spectra comparison. Total ion current. Monitoring of selected ion/fragment. The use of hyphenated and coupled chromatographic methods. Tandem MS-MS, GC-MSD, HPLC-MS, microcolumn application. MALDI ToF MS, ToF SIMS and methods of surface analysis. Evaluation of mass spectrum.							
Recommended literature:							
Course language:							
Notes:							
Course assessment Total number of assessed students: 1							
A	B	C	D	E	FX	N	P
100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provides: prof. RNDr. Andrej Oriňak, PhD., RNDr. Ondrej Petruš, PhD.							
Date of last modification: 03.05.2015							
Approved: prof. RNDr. Andrej Oriňak, PhD.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ POVK/04	Course name: Membership in a Conference organizing Committee
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 38	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ MCV1/03	Course name: Methods of Chemical Research
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 1 Per study period: 28 / 14 Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: II., III.	
Prerequisites:	
Conditions for course completion: The students are expected to actively participate in seminars by demonstrating solutions to selected problems (a presentation of a real problem) in front of their course-fellows. Examination	
Learning outcomes: To make students known with the physicochemical parameters' means of measurement, evaluation, and interpretation for the study of the process, i.e. the rate of reaction, mechanism, intermediates and final products in both homogeneous and heterogeneous systems.	
Brief outline of the course: Overview of basic principles of the determination of physicochemical quantities (dissociation constant, activity coefficient, solubility product, stability constant of complex, diffusion coefficient). Calorimetry and its utilisation. Experimental methods in kinetics. The Butler-Volmer equation. Survey of selected key topics in colloid chemistry. Adsorption-BET equation. Determination of molecular mass of macromolecules. A discussion of topics selected from active research fields.	
Recommended literature: W.J. Moore: Physical Chemistry, Longman Group Limited, London 1972 H. H. Willard et al.: Instrumental Methods of Analysis, Wadsworth, Belmont 1988 J. Koryta, J. Dvořák, L. Kavan: Principles of Electrochemistry, John Wiley & Sons, New York 1993 P.W. Atkins: Physical Chemistry, Oxford University Press, Oxford, New York 2002 D. Kladeková: Supportive Textbooks in Course: Methods of Chemical Research, The ESF project no. SOP HR 2005/NP1-051 11230100466, Košice 2008	
Course language:	
Notes:	

Course assessment							
Total number of assessed students: 35							
A	B	C	D	E	FX	N	P
48.57	28.57	2.86	5.71	0.0	0.0	0.0	14.29
Provides: doc. RNDr. Andrea Straková Fedorková, PhD.							
Date of last modification: 20.09.2017							
Approved: prof. RNDr. Andrej Oriňak, PhD.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/ FMP1/03		Course name: Modelling of Physicochemical Processes					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present							
Number of ECTS credits: 5							
Recommended semester/trimester of the course:							
Course level: II., III.							
Prerequisites:							
Conditions for course completion: Seminar work. Examination.							
Learning outcomes: To explain general principles of modelling, to report the examples of mathematic models of basic physicochemical processes.							
Brief outline of the course: Modelling and processes control. General principles of modelling. Examples of mathematical models of processes dynamics. Dynamic properties of processes. Dynamic characteristics of processes. Computational models.							
Recommended literature: William L. Luyben: Process Modeling, Simulation, and Control for Chemical Engineers (2nd edition), McGraw-Hill College, 1990. Richard G. Rice, Duong D. Do, D. Do Duong: Applied Mathematics and Modeling for Chemical Engineers, John Wiley & Sons Inc, 1995.							
Course language:							
Notes:							
Course assessment Total number of assessed students: 31							
A	B	C	D	E	FX	N	P
70.97	0.0	3.23	0.0	0.0	0.0	0.0	25.81
Provides: prof. RNDr. Renáta Oriňáková, DrSc.							
Date of last modification: 20.09.2017							
Approved: prof. RNDr. Andrej Oriňák, PhD.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/ TFCH/03		Course name: New Trends in Analytical Chemistry					
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 3 / 1 Per study period: 42 / 14 Course method: present							
Number of ECTS credits: 5							
Recommended semester/trimester of the course:							
Course level: III.							
Prerequisites:							
Conditions for course completion: Seminar work. Examination.							
Learning outcomes: News in physical chemistry developments.							
Brief outline of the course: New trends in physical chemistry methods, physical functions of nanostructured surfaces, spectral signal enhancement, separation of the nanoobjected films, nanocatalysis; theoretical background and applications of electrochemical impedance spectroscopy, progress and new trends in chemical sensors, electrochemical sensors and biosensors. Moderné mikroskopické metódy. Advanced Microscopic Methods. Overview of various microscopy methods - light microscopy, electron microscopy, scanning probe microscopy. Principles, theory and examples of practical application of electrochemical impedance spectroscopy. 3D interpretation of the impedance spectra. Modeling of equivalent circuits. Basic electrochemical properties of Li-ion batteries - cycling, capacity, intercalation and conversion.							
Recommended literature: Peter C. Schmidt: Methods in Physical Chemistry, Wiley-VCH Verlag GmbH and Co., 2012. Scientific journals articles.							
Course language:							
Notes:							
Course assessment Total number of assessed students: 7							
A	B	C	D	E	FX	N	P
100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provides: doc. RNDr. Andrea Straková Fedorková, PhD., prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Renáta Oriňaková, DrSc., RNDr. Andrea Morovská Turoňová, PhD.							
Date of last modification: 20.09.2017							

Approved: prof. RNDr. Andrej Oriňak, PhD.

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ NZ/04	Course name: Not-Reviewed International or Local Proceedings
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 171	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PVS/04	Course name: Patents, Inventions, Software
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 0	
abs	n
0.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: KPE/ PgVU/17	Course name: Pedagogy for university teachers	
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: present		
Number of ECTS credits: 5		
Recommended semester/trimester of the course:		
Course level: III.		
Prerequisites:		
Conditions for course completion:		
Learning outcomes:		
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 32		
abs	n	neabs
100.0	0.0	0.0
Provides: PaedDr. Renáta Orosová, PhD.		
Date of last modification: 12.02.2021		
Approved: prof. RNDr. Andrej Oriňak, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PFCH1/2014/14	Course name: Pokročilá fyzikálna chémia 1
Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28 Course method: present	
Number of ECTS credits: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion: Final examination.	
Learning outcomes: Experiences in heterogenous catalysis.	
Brief outline of the course: Completed knowledges from heterogenous catalysis, methods of catalysts study, catalytic reactions study. Transport phenomena during heterogenous catalysis. Calculation of kinetic constants and methods of catalysts characterisation. Main impact is in area of catalysts for methane conversion to hydrogen or useful chemicals.	
Recommended literature: 1. Atkins : Physical Chemistry I.-IV. 2. P.C.Schmidt: Methods in Physical Chemistry, Wiley-VCH GmbH, 2012.	
Course language: Slovak, English	
Notes:	
Course assessment Total number of assessed students: 14	
N	P
0.0	100.0
Provides: prof. RNDr. Andrej Oriňak, PhD., prof. RNDr. Renáta Oriňaková, DrSc.	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PFCH2/2014/14	Course name: Pokročilá fyzikálna chémia 2
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: 10	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion: Final exam.	
Learning outcomes: Exam.	
Brief outline of the course: Covered is scientific problem of fast reactions, photochemistry and laser spectroscopy as well as electrochemical reactions. It forms a basis for PhD students to solve problems in experimental work and to find suitable evaluations.	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 11	
N	P
0.0	100.0
Provides: prof. RNDr. Andrej Oriňak, PhD., doc. RNDr. Zuzana Vargová, Ph.D., prof. RNDr. Renáta Oriňaková, DrSc.	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice							
Faculty: Faculty of Science							
Course ID: ÚCHV/ PPCHR1/03		Course name: Pokročilý kurz chromatografie					
Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 3 Per study period: 42 Course method: present							
Number of ECTS credits: 5							
Recommended semester/trimester of the course:							
Course level: III.							
Prerequisites:							
Conditions for course completion:							
Learning outcomes:							
Brief outline of the course:							
Recommended literature:							
Course language:							
Notes:							
Course assessment Total number of assessed students: 1							
A	B	C	D	E	FX	N	P
0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Provides: prof. RNDr. Andrej Oriňak, PhD.							
Date of last modification: 03.05.2015							
Approved: prof. RNDr. Andrej Oriňak, PhD.							

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ VYS/04	Course name: Presentation in Seminar
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 179	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: KPPaPZ/PsVU/17	Course name: Psychology for University Lecturers
Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion: Case study, micro-output, its analysis Current modifications of the course for the semester 2020/2021 are listed in the electronic bulletin board of the course.	
Learning outcomes: Acquisition of psychological skills necessary for professional, competent performance of university teaching practice of doctoral students on the basis of acquisition and use of selected psychological knowledge from cognitive psychology, psychology of emotions and motivation, personality psychology, developmental, social, pedagogical psychology and health psychology. They will enable university teachers - doctoral students to understand the psychological interpretation of human development, upbringing and education. The acquired knowledge will enable better application in practice, are closely linked to practice and are based on current knowledge of the field.	
Brief outline of the course: University teacher and his work in the teaching process with a focus on: teacher in relation to himself (cognitive, personality, social competencies and competencies in the use of methods), in relation to students and as part of the teacher-student relationship based on selected areas of cognitive psychology, psychology of emotions and motivation, developmental psychology, social psychology, educational psychology and health psychology with application to the university environment.	
Recommended literature: Alexitch, L. R. (2005). Applying social psychology to education. Social Psychology.–Ed.: Schneider F., Gruman J., Coutts L.–Sage Publications, Inc, 205-228. Fry, H., Ketteridge, S., & Marshall, S. (2008). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge. Mareš, J.: Pedagogická psychologie. Portál, 2013. Kniha psychologie. Universum, 2014 Čáp, J., Mareš, J.: Psychologie pro učitele. Praha: Portál 2007. Vágnerová, M.: Školní poradenská psychologie pro pedagogy. Praha: Karolínium 2005.	
Course language:	

Notes:		
Course assessment		
Total number of assessed students: 27		
abs	n	neabs
100.0	0.0	0.0
Provides: Mgr. Marta Dobrowolska Kulanová, PhD., doc. PhDr. Beata Gajdošová, PhD., PhDr. Anna Janovská, PhD.		
Date of last modification: 17.02.2021		
Approved: prof. RNDr. Andrej Oriňak, PhD.		

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ VPBP/04	Course name: Review of a Bachelor Thesis
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 62	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ RZ/04	Course name: Reviewed International or Local Proceedings
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 5	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 305	
abs	n
100.0	0.0
Provides:	
Date of last modification: 03.05.2015	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ SCI/04	Course name: SCI Citation
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 20	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 183	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ ZSP/04	Course name: Study Stay Abroad
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 2	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 79	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ VBP/04	Course name: Supervision of Bachelor Thesis
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 292	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ VPSV/04	Course name: Supervision of a Students Scientific Work
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 6	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 67	
abs	n
100.0	0.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	

COURSE INFORMATION LETTER

University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ PDS/18	Course name: Writing Dissertation Work
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present	
Number of ECTS credits: 0	
Recommended semester/trimester of the course:	
Course level: III.	
Prerequisites:	
Conditions for course completion:	
Learning outcomes:	
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 6	
N	P
0.0	100.0
Provides:	
Date of last modification:	
Approved: prof. RNDr. Andrej Oriňak, PhD.	