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25. Modern spectroscopic methods	
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36. Principal investigator of an internal grant (VVGS)	
37. Psychology for University Lecturers.38. Q1 journal as co-author.	
39. Q1 journal as first or corresponding author	
40. Q2 journal as co-author	
41. Q2 journal as first or corresponding author.	
42. Q3 journal as co-author	
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University: P. J. Šafárik University in Košice				
Faculty: Faculty of S	cience			
Course ID: ÚCHV/ COK/22	Course name: Certified	training course		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:			
Course method: present Number of ECTS credits: 4				
Recommended seme	ster/trimester of the cou	rse:		
Course level: III.				
Prerequisities:				
Conditions for cours Completion of a certi	e completion: fied professional/training	course.		
work and familiarize He confronts his own	s himself with the method	knowledge, develops the capabilities of scientific lologies of making scientific knowledge available. h other course participants, develops the abilities of		
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
Course assessment Total number of asses	ssed students: 0			
	abs	n		
	0.0	0.0		
Provides:				
Date of last modifica	tion: 08.11.2022			

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

Course ID: ÚCHV/	Course name: Chiral auxiliaries & ligands
CPC/04	

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:

Course level: III.

Prerequisities:

Conditions for course completion:

Student must active work during semester (seminar written discussion).

The terminal examination consists of written and oral part.

Terminal examination by written form and oral presentation of the resolved synthetic problems, followed by subsequent discussion with the examiner.

The witten part is evaluated as follows: 100-91% of points = A, 90-81% of points = B, 80-71% of points = C, 70-61% = D, 60-51% of points = E, 50% and less = FX.

The final evaluation is based on combination of the obtained results from both parts.

Learning outcomes:

The general review on chiral auxiliaries and ligands and their application in asymmetric synthesis. After completing the subject, the doctoral student can combine the latest knowledge in the field of chiral auxiliary agents and ligands to solve a synthetic problem in order to obtain a solution with significant added value. He has knowledge of modern asymmetric synthesis and catalysis, which he can apply in solving given synthetic problems.

Brief outline of the course:

Enantiomerically pure chiral auxiliaries (alcohols, diols, diphenols, amines, diamines, hydrazines, amonoalcohols, amino acids, oxazolidinones, thiazolidinones, aldehydes, ketones, lactams,) Chiral reagents (chiral proton donors, chiral bases, alumínium and boron hydrides). Chiral catalysis and catalysts bearing chiral ligands (aminoalcohols, amino acids, crown ethers, Lewis acids, transition metal catalysts). Asymmetric deprotonations and protonations. Alkylations and related reactions. Additions to C=O and C=N double bond (reductions by hydrides and boranes). Additions to carbon-carbon double bonds (reductions by hydrides, hydroboration, dihydroxylation, epoxidation), Sigmatropic rearrangements (thermal and catalyzed).

Recommended literature:

1. J. Seyden-Penne: Chiral auxiliaries and ligands in asymmetric synthesis, John Wiley & Sons, 2005.

2. M. Christmann, S. Brase.: Asymmetric synthesis II: More methods and Applications, 2012 Wiley#VCH Verlag GmbH & Co. KGaA 2012, ISBN:9783527329212. Online ISBN:9783527652235.

Course language: anglický Notes: Teaching is carried out in person or, if necessary, online, using the MS Teams tool. The form of teaching is specified by the teacher at the beginning of the semester, updated continuously. Course assessment Total number of assessed students: 35 N P 0.0 100.0 Provides: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka Date of last modification: 04.08.2022 Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

	rik University in Košice	
Faculty: Faculty of S	Science	
Course ID: ÚCHV/ CZC/22	Course name: Citation in	the International Scientific Journal
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: 4	
Recommended seme	ester/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Obtained citation in a	se completion: a foreign scientific journal.	
Learning outcomes: Obtaining a citation		very well-founded scientific knowledge in the
researched field, bas problem in such a wa source demonstrates	sed on the ability to formul ay that generates new know	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language:	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe course: ature:	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe course: ature:	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	sed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe course: ature:	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant st expert level
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	sed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe course: ature: ssed students: 15 abs	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant st expert level
researched field, bas problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	sed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe course: ature: ssed students: 15 abs 100.0	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant st expert level

	rik University in Košice	
Faculty: Faculty of S	-	<u>.</u>
Course ID: ÚCHV/ CDC/22		the Local Scientific Journal
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: 2	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Citation in a national		
•		very well-founded scientific knowledge in the
problem in such a was source demonstrates	ay that generates new know	ate research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant est expert level
problem in such a was source demonstrates	ay that generates new know the competence to comm tific knowledge, at the highe	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a wa source demonstrates contribution to scient	ay that generates new know the competence to comm tific knowledge, at the highe	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a wa source demonstrates contribution to scient Brief outline of the c	ay that generates new know the competence to comm tific knowledge, at the highe	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera	ay that generates new know the competence to comm tific knowledge, at the highe	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a wa source demonstrates contribution to scient Brief outline of the c Recommended litera Course language:	ay that generates new know the competence to comm tific knowledge, at the highe course: nture:	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a was source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	ay that generates new know the competence to comm tific knowledge, at the highe course: nture:	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant
problem in such a was source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	ay that generates new know the competence to comm tific knowledge, at the highe course: nture: ssed students: 0	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant est expert level
problem in such a was source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	ay that generates new know the competence to comm tific knowledge, at the highe course: nture: ssed students: 0 abs	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant est expert level n
problem in such a was source demonstrates contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	ay that generates new know the competence to comm tific knowledge, at the highe course: nture: ssed students: 0 abs 0.0	ledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant est expert level n

	University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science				
Course ID: ÚCHV/ CM/22Course 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: 8				
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours Obtained citation reg	e completion: istered in SCI or Scopus.			
researched field, bas problem in such a wa	ed on the ability to formu	very well-founded scientific knowledge in the late research questions, to reflect on a scientific ledge. At the same time, a citation in an indexed		
		unicate new knowledge, which is a significant		
	the competence to comm ific knowledge, at the highe	unicate new knowledge, which is a significant		
contribution to scient	the competence to comm ific knowledge, at the higher ourse:	unicate new knowledge, which is a significant		
contribution to scient Brief outline of the c	the competence to comm ific knowledge, at the higher ourse:	unicate new knowledge, which is a significant		
contribution to scient Brief outline of the c Recommended litera	the competence to comm ific knowledge, at the higher ourse:	unicate new knowledge, which is a significant		
contribution to scient Brief outline of the c Recommended litera Course language:	the competence to comm ific knowledge, at the higher ourse: nture:	unicate new knowledge, which is a significant		
contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	the competence to comm ific knowledge, at the higher ourse: nture:	unicate new knowledge, which is a significant		
contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	the competence to comm ific knowledge, at the higher ourse: nture: ssed students: 0	unicate new knowledge, which is a significant est expert level.		
contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment	the competence to comm ific knowledge, at the higher ourse: nture: ssed students: 0 abs	n		
contribution to scient Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	the competence to comm ific knowledge, at the higher ourse: nture: ssed students: 0 abs 0.0	n		

University: P. J. Safá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ Course name: Co-investigator of the applied research project SPAV/22			
Course type, scope a Course type: Recommended cour 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 Co-investigator of the	e completion: e applied research project		
to the solution of the	project objective of applie	cipate in teamwork, to bring his own contribution d research and to take responsibility for assigned	
objective according t own activities with c	o the established procedure olleagues, to participate in t	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD cal course of a grant project with a focus on applied	
objective according t own activities with cu student gains valuable	o the established procedure olleagues, to participate in t e experience from the practic	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with cu student gains valuable research.	o the established procedure olleagues, to participate in t e experience from the practic	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with co student gains valuable research. Brief outline of the c	o the established procedure olleagues, to participate in t e experience from the practic	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with co student gains valuable research. Brief outline of the c Recommended litera	o the established procedure olleagues, to participate in t e experience from the practic	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with co student gains valuable research. Brief outline of the c Recommended litera Course language:	o the established procedure olleagues, to participate in t e experience from the practic course:	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with co- student gains valuable research. Brief outline of the c Recommended litera Course language: Notes: Course assessment	o the established procedure olleagues, to participate in t e experience from the practic course:	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD	
objective according t own activities with co- student gains valuable research. Brief outline of the c Recommended litera Course language: Notes: Course assessment	o the established procedure olleagues, to participate in t e experience from the practic sourse: nture: ssed students: 0	he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD cal course of a grant project with a focus on applied	
objective according t own activities with co- student gains valuable research. Brief outline of the c Recommended litera Course language: Notes: Course assessment	o the established procedure olleagues, to participate in t e experience from the practic course: nture: ssed students: 0 abs	n n	
objective according t own activities with co- student gains valuable research. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	o the established procedure olleagues, to participate in t e experience from the practic sourse: nture: ssed students: 0 abs 0.0	n n	

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ SDP/22	Course name: Co-worker	of a Local Project	
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:		
Number of ECTS cr	edits: 10		
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours Co-investigator of the	±		
to the solution of the solving the domestic to the established pro- colleagues, to particip	ne project objective and to project, he acquires the abi ocedure, to follow the project	cipate in teamwork, to bring his own contribution take responsibility for the assigned tasks. By lity to implement the project intention according et schedule, to coordinate his own activities with buts. The PhD student gains valuable experience	
Brief outline of the c	ourse:		
Recommended litera	nture:		
Course language:			
Notes:			
Course assessment Total number of asse	ssed students: 58		
abs n			
	100.0 0.0		
Provides:			
Provides: Date of last modifica	tion: 08.11.2022		

Faculty: Faculty of ScienceCourse ID: ÚCHV/ SMPR/04Course name: Co-worker of SMPR/04Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period:	an International Project
SMPR/04Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period:	an International Project
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.	
Prerequisities:	
Conditions for course completion: Membership in the research team of an internationa	al project.
Active involvement by solving a specific task w The PhD student demonstrates the ability to work task, adhere to the time schedule and fulfill the pr experience from the implementation of an interna creation of measurable outputs, grant funding of sc	in a team, take responsibility for the assigned roject outputs. The PhD student gains personal ational project, participation in its key stages,
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 43	
abs	n
100.0	0.0
Provides:	
Date of last modification: 08.11.2022	
Approved: doc. RNDr. Miroslava Martinková, PhI	D., univerzitná profesorka

	University: P. J	Šafárik	University	in Košice
I	Chiver Steys 1. 5	. Suluin	Oniversity	

Faculty: Faculty of Science

Course ID: ÚCHV/	Course name: Current topics in organic chemistry
POCE/04	

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:

Course level: III.

Prerequisities:

Conditions for course completion:

A student must actively work during semester (seminar written discussion).

The terminal examination consists of written and oral part.

Terminal examination by written form and oral presentation of the resolved synthetic problems, followed by subsequent discussion with the examiner.

The witten part is evaluated as follows: 100-91% of points = A, 90-81% of points = B, 80-71% of points = C, 70-61% = D, 60-51% of points = E, 50% and less = FX.

The final evaluation is based on the combination of the obtained results from both parts.

Learning outcomes:

The modern view of the several important chapters of the advanced organic chemistry. New trends in the organic synthesis.

Brief outline of the course:

Delocalisation and conjugation, delocalized bonds, reaction intermediates, base and acid, effect on equilibria. Electrophilic and nucleophilic aromatic substitution, addition to C=C and C=Heteroatom bonds, elimination reaction, rearrangements, oxidations and reductions. Nucleophillic substitution at saturated carbon (compounds bearing the carbon-heteroatom bond).

Formations and reactions of enols and enolates. Reactivity of enolates, alkylation of enolates conjugate addition of enolates. Acylation of carbon. Nucleophilic substitution at C=O with loss of carbonyl oxygen. Using organometallic reagents to make C-C bonds. Pericyclic reactions. Cycloaditions and their stereochemical course. Diels-Alder reactions with the normal and reverse electron demands. Sigmatropic rearrangements and their selectivity. Aza-Claisn rearrangements and their application in the costruction of the more complex products. Chemistry of the coupling reactions and their application in organic synthesis. Protective groups in organic synthesis.

Recommended literature:

1. Michael B. Smith, Jerry March: March's Advanced Organic Chemistry: Reactions,

Mechanisms, and Structure, 7th Edition, 2013.

2. J. Clayden, N. Greeves, S. Warren, P. Wothers Organic Chemistry, Oxford University Press, NY 2012.

Course language:

anglický

Notes:

Teaching is carried out in person or, if necessary, online, using the MS Teams tool. The form of teaching is specified by the teacher at the beginning of the semester, updated continuously.

Course assessment

Total number of assessed students: 42

N P			
0.0 100.0			
Provides: RNDr. Slávka Hamul'aková, PhD., univerzitná docentka			
, , ,			

Date of last modification: 20.11.2021

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

COURSE INFOR	RMATION LETTER
University: P. J. Šafárik University in Košice	
Faculty: Faculty of Science	
Course ID: ÚCHV/ Course name: Defence of ODZP/15	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 cou	rse:
Course level: III.	
Prerequisities:	
elements of academic fraud and must meet the Rector's Decision no. 21/2021, which lays dow Šafárik University in Košice and its constituen	udent's own scientific research. It must not show e criteria of correct research practice defined in the vn the rules for assessing plagiarism at Pavel Jozef nts. Fulfillment of the criteria is verified mainly in f the thesis defense. Failure to do so is grounds for
mastery of the theory and professional terminol skills and competences in accordance with the c as well as the ability to apply them in an orig of study. The student demonstrates the ability of formal and ethical aspects. Further details of the 1/2011 on the essential prerequisites of final th in Košice for doctoral studies. The doctoral student demonstrated the ability and activity in the field of study of philology in qualification framework and the profile of the g	ntific work and the student demonstrates extensive logy of the field of study, acquisition of knowledge, declared profile of the graduate of the field of study, inal way in solving selected problems of the field of independent scientific work in terms of content, e Dissertation thesis are determined by Directive no. leses and by the Study Rules of Procedure at UPJŠ nd readiness for independent scientific and creative accordance with the expectations of the relevant graduate.
Brief outline of the course:	
Recommended literature:	
Course language:	
Notes:	
Course assessment Total number of assessed students: 76	
Ν	р
	1

Provides:

Date of last modification: 08.11.2022

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ VPZP/22	Course name: Elaboratio	n of reviewer report
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period:	
Number of ECTS cr		
	ester/trimester of the cou	
Course level: III.		
Prerequisities:		
well as knowledge of assess a professional	ver report nonstrates broad and scier a wide range of methods and problem and its propose solution. He applies kno	tifically based knowledge in the field of study, as ad approaches. Demonstrates the ability to critically d solution, as well as to evaluate it and possibly wledge and skills from the field of pedagogical
Brief outline of the o	course:	
Recommended litera	ature:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 1	
	abs	n
100.0 0.0		
Provides:		
Provides: Date of last modifica	ntion: 08.11.2022	

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: CJP/ AJD1/07	Course ID: CJP/ Course name: English Language for PhD Students 1			
Course type, scope a Course type: Practic Recommended cour Per week: 2 Per stu Course method: dis	ce rse-load (hours): dy period: 28			
Number of ECTS cr	edits: 2			
Recommended seme	ster/trimester of the course: 1.			
Course level: III.				
Prerequisities:				
-	e completion: rse English for PhD Students (lms.upjs.sk), consultations (1-3). - Professional/Academic CV, Short Academic Biography.			
of their linguistic cor syntactic aspects; dev	students' language skills - reading, writing, listening, speaking; improvement npetence - students acquire knowledge of selected phonological, lexical and relopment of pragmatic competence - students acquire skills for effective and cation, with focus on Academic English and English for specific/professional			
vocabulary developm formation, formal/int	ourse: academic and professional English with focus on correct pronunciation, ent (noun and verb collocations, phrasal verbs, prepositional phrases, word- formal language, etc.), selected aspects of English grammar (prepositions, ive voice, etc.), academic writing (professional/academic CV, Short Academic			
Kolaříková, Z., Petru Košice, Vydavateľstv Tomaščíková, S., Roz Vydavateľstvo Šafári McCarthy, M., O'Del Štepánek, L., J. De H 2011.	cademic Vocabulary Practice. OUP, 2017. ňová, H., Timková, R.: Angličtina v akademickom prostredí – cvičebnica. o ŠafárikPress, 2021. cenfeld, J. Developing Academic English in Speaking and Writing.			
Course language: English, level B2 acc	ording to CEFR			
Notes:				

Course assessm					
Total number of	f assessed studen	ts: 780			
N Ne P Pr abs neabs					
0.0 0.0 45.64 0.0 54.23 0.13					
Provides: Mgr.	Zuzana Kolaříko	vá, PhD.		- -	•
Date of last mo	dification: 06.09	0.2024			
Approved: doc.	. RNDr. Miroslav	va Martinková, P	hD., univerzitná	profesorka	

LD2/07 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Number of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Learning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list). English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. <t< th=""><th></th><th>COURSE INFORMATION LETTER</th></t<>		COURSE INFORMATION LETTER
Course ID: CJP/ VID2/07 Course name: English Language for PhD Students 2 Course type, scope and the method: Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Yumber of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Test, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Acarning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional surposes, level B2. Strief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafiková, Z., Pe	University: P. J. Šafá	rik University in Košice
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Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Wumber of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS)	Course ID: CJP/ AJD2/07	Course name: English Language for PhD Students 2
Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Test, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) cearning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafiková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. UpJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafařikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP,	Course type: Practic Recommended cour Per week: 2 Per stu	ce rse-load (hours): idy period: 28
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	Kolaříková, Z., Petru UPJŠ Košice, 2021. Tomaščíková, S., Roz Vydavateľstvo Šafári McCarthy, M., O'De Štepánek, L., J. De H 2011.	nňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). zenfeld, J. Developing Academic English in Speaking and Writing. ikPress, 2021. II, F.: Academic Vocabulary in Use. CUP, 2008. Iaff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s.,
Course language: B2 level according to CEFR	Course language: B2 level according to	o CEFR
	Notes:	

Course assessm Total number of	nent f assessed studen	ts: 774			
N Ne P Pr abs neabs					
0.26 0.0 94.06 1.03 4.52 0.13					
Provides: Mgr. Zuzana Kolaříková, PhD.					
Date of last mo	dification: 05.02	2.2024			
Approved: doc.	. RNDr. Miroslav	va Martinková, P	hD., univerzitná	profesorka	

	COURSE INFORMATION LETTER
University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚCHV/ NSVR/04	Course name: High-resolution NMR spectroscopy
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 cr	edits: 8
Recommended seme	ster/trimester of the course:
Course level: III.	
Prerequisities:	
 two lectures / seminar of the curriculum der of a lecture,) 2. Activity at seminar 3. Written assignment instructions. 4. Final test (30% of 10%) 	ures and seminars (also online form of teaching): the student's absence from rs will be justified by the teacher; after a long-term absence, an understanding nonstrated in an alternative form (eg elaboration of assignments, preparation rs (also on-line form of teaching) - necessary theoretical preparation nts (20% of the total evaluation) - elaboration according to the teacher's
	e is to get acquainted with 1D and 2D NMR methods and the application of lge in solving NMR problems.
 b) Proton-proton corr c) Proton-carbon corr d) Carbon-carbon corr 	R methods nents - APT, DEPT ents related experiments (interactions through bonds) - COSY, TOCSY related experiments (interactions across space) - NOESY related experiments - HSQC/HMQC/HETCOR, HMBC, H2BC, EXSIDE rrelated experiments - INADEQUATE
2. T. D. W. Claridge: 2016.	 Ature: Cone- and Two-Dimensional NMR Spectrocopy, 5. Ed., Wiley, 2010. High-Resolution NMR Techniques in Organic Chemistry, 5. Ed., Elsevier, M. I. Choudhary: Solving Problems with NMR spectroscopy, Academic

Course language: English		
Notes: Teaching is carried out in person or, if necessary, teaching is specified by the teacher at the beginn		
Course assessment Total number of assessed students: 25		
N P		
0.0 100.0		
Provides: doc. RNDr. Mária Vilková, PhD.		
Date of last modification: 28.01.2022		
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka		

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ SSOL/04	Course name: Individual	Study of Scientific Literature
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: 2	
Recommended seme	ster/trimester of the cou	se:
Course level: III.		
Prerequisities:		
Conditions for cours	se completion:	
documents, obtaining preparation of public Brief outline of the c	g informations for elaborat ation, respectively.	th books, monographies, databases and source ion of the thesis, for preparation of experiments or
Independent study of	fliterature following the su	ggestions of the tutor.
Recommended litera Books, monographs, Web of Science, SCOPUS, original papers	ature:	
Course language: English language.		
Notes:		
Course assessment Total number of asse	ssed students: 217	_
	abs	n
	100.0	0.0
Provides:		
Provides: Date of last modifica	ntion: 05.11.2021	

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ ZC/22	Course name: Internationa	al Journal
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: 8	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for course Publication accepted	e completion: in a foreign journal as an au	thor/co-author.
level of ability to iden He demonstrates the applying them critica an innovative way, as according to the high	ntify, evaluate, and apply co ability to reflect on a scien lly. He demonstrates the con s well as to generate new ori est qualitative and ethical sta	co-author, the PhD student demonstrates a high rrect scientific methods or research methodology. tific problem by using the latest approaches and mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates viewers' suggestions, to finalize his own ideas.
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 4	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	

ZSP1/22 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. Prerequisities: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can completently argue and explain his ideas. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 8 abs n 100.0 0.0			
Course ID: ÚCHV/ Course name: International Study Stay less than 30 Days ZSP1/22 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. Prerequisities: Completion of a foreign study stay lasting less than 30 days. Cearning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment 100.0 0.0 100.0 0.0 0 Provides:	University: P. J. Šafá	rik University in Košice	
ZSP1/22 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: Course level: III. Prerequisities: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can completently argue and explain his ideas. Brief outline of the course: Recommended literature: Course language: Votes: Course assessment 100.0 0.0 100.0 0.0 0.0 Provides: Intervention 0.0	Faculty: Faculty of S	cience	
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: Course level: III. Prerequisities: Conditions for course completion: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas. Brief outline of the course: Course language: Recommended literature: Course language: Notes: 2 Course assessment abs 100.0 0.0 Provides: 0.0	Course ID: ÚCHV/ ZSP1/22	Course name: Internationa	al Study Stay less than 30 Days
Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas. 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:	Course type: Recommended cour Per week: Per stud	rse-load (hours): y period:	
Course level: III. Prerequisities: Conditions for course completion: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can competently argue and explain his ideas. 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:	1		
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Conditions for course completion: Completion of a foreign study stay lasting less than 30 days. Learning outcomes: By completing a shorter study stay, the PhD student demonstrates the ability to reflect on research problems and work critically with sources at an expert level and in an interdisciplinary context, while being able to generate new knowledge. He is able to actively communicate at an expert level in more than one language. He acts as a responsible independent scientist, works independently and in a group with the aim of pushing the boundaries of knowledge and transferring them to other areas of research, to practice and to the wider public. He can completently argue and explain his ideas. 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:	Course level: III.		
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Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 8 abs n 100.0 0.0 Provides:	By completing a shor problems and work of while being able to ge in more than one lang in a group with the air	critically with sources at an enerate new knowledge. He uage. He acts as a responsib n of pushing the boundaries	expert level and in an interdisciplinary context, is able to actively communicate at an expert level le independent scientist, works independently and of knowledge and transferring them to other areas
Course language: Notes: Course assessment Total number of assessed students: 8 abs n 100.0 0.0 Provides:	Brief outline of the c	ourse:	
Notes: Course assessment Total number of assessed students: 8 abs n 100.0 0.0 Provides:	Recommended litera	ture:	
Course assessment Total number of assessed students: 8 abs n 100.0 0.0 Provides:	Course language:		
Total number of assessed students: 8 abs n 100.0 0.0	Notes:		
100.0 0.0 Provides:	Course assessment Total number of asses	ssed students: 8	
Provides:		abs	n
		100.0	0.0
Date of last modification: 08.11.2022	Provides:		
	Date of last modifica	tion: 08.11.2022	
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka	Approved: doc. RND	Pr. Miroslava Martinková, Pl	hD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ ZSP2/22	Course name: Internationa	al Study Stay more than 30 Days	
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:		
Number of ECTS cr	edits: 10		
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours Completion of a fore	e completion: ign study stay lasting more t	than 30 days.	
problems and work of while being able to go in more than one lang in a group with the air	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries	e demonstrates the ability to reflect on research expert level and in an interdisciplinary context, is able to actively communicate at an expert level le independent scientist, works independently and of knowledge and transferring them to other areas Ie can competently argue and explain his ideas.	
Brief outline of the c	ourse:		
Recommended litera	iture:		
Course language:			
Notes:			
Course assessment Total number of asse	ssed students: 7		
		abs n	
	abs	n	
	abs 100.0	n 0.0	
	100.0		

University: P. J. Šafá	rik University in Košice			
Faculty: Faculty of S	cience			
Course ID: ÚCHV/ MKZ/22	Course name: Internation	al conference abroad		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:			
Number of ECTS cr	edits: 10			
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours Active participation i	e completion: n an international conference	ce abroad.		
demonstrates a high research methodolog scientific problem b competence to use ex-	level of ability to identify, y in his scientific field. He y using the latest approac xisting theories and concep owledge and communicate	scientific conference abroad, the phD student evaluate, and apply correct scientific methods or e demonstrates the ability to reflect on a specific hes and applying them critically. Demonstrates ts in an innovative way, as well as generate new research results to a wider audience by adequate		
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
Course assessment	ssad students: 30			
Total number of asse	sseu students. 50	abs n		
lotal number of asse		n		
		n 0.0		
	abs			
	abs 100.0			

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ DK/04	Course name: Local Con	nference
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: 2	
Recommended seme	ster/trimester of the cou	rse:
Course level: III.		
Prerequisities:		
Conditions for cours Active participation i	e completion: n the home conference.	
in his scientific field using the latest approx theories and concepts	. He demonstrates the ab aches and applying them cr in an innovative way, as w	correct scientific methods or research methodology ility to reflect on a specific scientific problem by ritically. Demonstrates competence in using existing vell as generating new original scientific knowledge r audience using adequate means and through the
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 133	
	abs	n
	100.0	0.0
Provides:		
Provides: Date of last modifica	tion: 08.11.2022	

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ DKZU/22	Course name: Local Conf	Ference with Foreign Participation
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	se:
Course level: III.		
Prerequisities:		
Conditions for course Active participation is	se completion: in a national conference wit	h foreign participation.
<i>v v i i</i>	0	ce, the PhD student demonstrates a high degree of
scientific field. He de latest approaches and and concepts in an i	emonstrates the ability to re l applying them critically. I innovative way, as well as	cientific methods or research methodology in his flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and nee by adequate means and through Slovak or a
scientific field. He de latest approaches and and concepts in an i communicate researc	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audier	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an i communicate research foreign language.	emonstrates the ability to re d applying them critically. I innovative way, as well as the results to a wider audien course:	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an i communicate research foreign language. Brief outline of the c	emonstrates the ability to re d applying them critically. I innovative way, as well as the results to a wider audien course:	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an i communicate research foreign language. Brief outline of the content Recommended litera	emonstrates the ability to re d applying them critically. I innovative way, as well as the results to a wider audien course:	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an in communicate research foreign language. Brief outline of the construction Recommended literation Course language:	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audien course:	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an in communicate research foreign language. Brief outline of the co Recommended litera Course language: Notes: Course assessment	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audien course:	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and
scientific field. He de latest approaches and and concepts in an in communicate research foreign language. Brief outline of the co Recommended litera Course language: Notes: Course assessment	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audien course: nture: ssed students: 39	flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and nee by adequate means and through Slovak or a
scientific field. He de latest approaches and and concepts in an in communicate research foreign language. Brief outline of the co Recommended litera Course language: Notes: Course assessment	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audien course: nture: ssed students: 39 abs	n
scientific field. He de latest approaches and and concepts in an in communicate research foreign language. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	emonstrates the ability to re d applying them critically. I innovative way, as well as ch results to a wider audien course: nture: ssed students: 39 abs 100.0	n

Faculty: Faculty of S	cience	
Course ID: ÚCHV/ DC/22	Course name: Loca	al Journal
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr	edits: 6	
Recommended seme	ster/trimester of the	ie course:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	-	l as author/co-author.
He demonstrates the applying them critica an innovative way, as according to the higher	ability to reflect on ally. He demonstrates s well as to generate	apply correct scientific methods or research methodology. a a scientific problem by using the latest approaches and s the competence to use existing theories and concepts in new original scientific knowledge, which he can publish hical standards of the field. The PhD student demonstrates
the ability to criticall	-	ond to reviewers' suggestions, to finalize his own ideas.
Brief outline of the c	y evaluate and respon	
	y evaluate and respon course:	
Brief outline of the c	y evaluate and respon course:	
Brief outline of the c Recommended litera	y evaluate and respon course:	
Brief outline of the c Recommended litera Course language:	y evaluate and respon course: ature:	
Brief outline of the c Recommended litera Course language: Notes: Course assessment	y evaluate and respon course: ature:	
Brief outline of the c Recommended litera Course language: Notes: Course assessment	y evaluate and respon course: ature: ssed students: 0	ond to reviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera Course language: Notes: Course assessment	y evaluate and respon course: ature: ssed students: 0 abs	n n
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	y evaluate and respon course: ature: ssed students: 0 abs 0.0	n n

	COURSE INFORM	
University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ SIG/22	Course name: Member of	the internal project team
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:	
Number of ECTS cr	edits: 3	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Co-worker of project	e completion: supported by internal grant	schemes (VVGS)
to the solution of th the internal VVGS g established procedure	e project objective within rant, he acquires the ability e, adhere to the project sched e creation of outputs. The l	cipate in teamwork, to bring his own contribution the internal grant system at UPJŠ. By solving to implement the project plan according to the ule, coordinate his own activities with colleagues, PhD student gains valuable experience from the
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asses	ssed students: 23	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	
Approved: doc. RND	Dr. Miroslava Martinková, P	hD., univerzitná profesorka

		MATION LETTER
University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ POVK/22	Course name: Membersh	ip in a Conference organizing Committee
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr	edits: 3	
Recommended seme	ster/trimester of the cours	se:
Course level: III.		
Prerequisities:		
Conditions for cours Work in the organizin	se completion: ng committee of the confere	ence
abilities and compete to manage the implem in writing using vario	nces to organize a scientific nentation in terms of time an us technical means as neede	the conference, the PhD student demonstrates the c or professional event independently or in a team, id content, to communicate effectively verbally and ed, including in a foreign language at a professional prrectly recommend solutions or make independent
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 4	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	ation: 08.11.2022	

	~	
University D	I Cofómile	University in Vation
University: P	J Salalik	University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/	Course name: Modern spectroscopic methods
MSPM/04	

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:

Course level: III.

Prerequisities:

Conditions for course completion:

Participation and activity in seminars - spectrum measurement and solution of advanced spectral examples. Percentage rating of final written exam: 100 - 91% (A), 90 - 81% (B), 80 - 71% (C), 70 - 61% (D), 60 - 51% (E), 50% and less FX. The final evaluation is based on combination of the obtained results from final written exam and successful solution of all spectra given in seminars.

Learning outcomes:

To teach students novel spectral methods and their applications in determination of the structure of unknown molecules. Students learn to measure the spectra of organic compounds (working with FTIR spectrometer) and process the measured data using available software. Solve the structures of unknown compounds by a combination of advanced spectral methods.

Brief outline of the course:

Fundamental concepts, experimental methods, general and special applications of infrared (IR), Raman spectroscopy and mass spectrometry (MS). IR and MS - methods and application. ATR-FTIR spektroscopy. Tandem MS/MS spectrometry. Application of MS in biotechnology, pharmaceutical, clinical or forensic field. Determination of the structure of the substance based on advanced IR and MS methods - sample measurement, processing in the editor and spectrum resolution. Luminescence methods and their applications to structural problems. Online spectral databases, spectrum processing software.

Recommended literature:

- 1. Spectroscopic Methods in Organic Chemistry, Georg Thieme Verlag, Stuttgart, 2007.
- 2. Structure Determination of Organic Compounds, Springer, 2000
- 3. Organic Structures from Spectra, 4. ed. John Wiley and Sons LTD, 2007

Course language:

slovak, english

Notes:

Teaching is carried out in person or, if necessary, online, using the BigBlueButton tool. The form of teaching is specified by the teacher at the beginning of the semester, updated continuously.

Course assessment	
Total number of assessed students: 16	
Ν	Р
0.0	100.0
Provides: RNDr. Monika Tvrdoňová, PhD.	
Date of last modification: 04.08.2022	
Approved: doc. RNDr. Miroslava Martinková, Pl	nD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ MOZ/04	Course name: Molecular devices	
Course type, scope a Course type: Lectur Recommended cou Per week: 2 / 2 Per Course method: pre	re / Practice rse-load (hours): study period: 28 / 28	
Number of ECTS cr	edits: 8	

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:

Student must actively work during semester. The seminar written report on the selected topic of this subject and its oral presentation connected with the common discussion with the examiner. The terminal examination consists of written and oral part.

Terminal examination by written form and oral presentation of the resolved problems, followed by subsequent discussion with the examiner.

The witten part is evaluated as follows: 100-91% of points = A, 90-81% of points = B, 80-71% of points = C, 70-61% = D, 60-51% of points = E, 50% and less = FX.

The final evaluation is based on combination of the obtained results from both parts.

Learning outcomes:

The general review on the principles of the molecular recognition, transformation and translation as the basic functions of the supramolecular structures as the components of the molecular machines. Series of the invited lectures of scientists working on the supramolecular chemistry.

Brief outline of the course:

EN

Receptors, molecular recognition, coordination. The genesis of interactions in supramolecular chemistry. Supramolecular chemistry in the nature. Porfyrins. DNA. Crown ethers, cryptands, cyclophanes. Selectivity and complementarity. Interactions with solvents. Macrocyclic and template effect. Receptors for the neutral molecules. Clathrates and intercalators. Cyclodextrins, calixarens. Fullerenes. Modification of fullerenes. Nanotubes. Supramolecular catalysis and transport. Proximity effect. Active and passive transport. Transporters. Molecular pumps. Bio-inspired supramolecular catalysis. Devices and machines at the molecular level, the concept of molecular machines. Fundamental principles of electron and energy transfer. Micelles and bilayers, Dendrimers.

Recommended literature:

1. J. W. Steed, J. L. Atwood: Supramolecular chemistry, Wiley and Sons Ltd, Chichester, 2000, ISBN ISBN 0-471-98791-3.

2. J. M.Lehn: Supramolecular chemistry: concepts and perspectives, Wiley VCH, Weinheim, 1995.

3. J. W. Steed: Supramolecular chemistry, John Wiley and Sons. Ltd. 2009.

4. V. Balzani, A. Credi, M Venturi: Molecular devices and Machines - a journey into the nano world, Wiley-VCH, Verlag GmbH and Co. KGaA, Weinheim 2003, ISBN 3-527-30506-8.

Course language:

anglický

Notes:

Teaching is carried out in person or, if necessary, online, using the MS Teams tool. The form of teaching is specified by the teacher at the beginning of the semester, updated continuously.

Course assessment

Total number of assessed students: 1

Ν	Р
0.0	100.0

Provides: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

Date of last modification: 20.11.2021

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

Faculty: Faculty of S	rik University in Košice	
Faculty. Faculty 01 S	cience	
Course ID: ÚCHV/ MONB/22	Course name: Monogra	ph
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 cou	rse:
Course level: III.		
Prerequisities:		
Conditions for cours Co-author of the mor	1	
evaluate, and apply c to reflect on a scient	orrect scientific methods of ific problem by using the	t demonstrates a high level of ability to identify, or research methodology. It demonstrates the ability latest approaches and applying them critically. He
as to generate new o qualitative and ethic	riginal scientific knowled al standards of the field.	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to ggestions, to finalize his own ideas.
as to generate new o qualitative and ethic	riginal scientific knowled al standards of the field. d respond to reviewers' su	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new o qualitative and ethic critically evaluate an	riginal scientific knowled al standards of the field. d respond to reviewers' su course:	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c	riginal scientific knowled al standards of the field. d respond to reviewers' su course:	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera	riginal scientific knowled al standards of the field. d respond to reviewers' su course:	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera Course language:	riginal scientific knowled al standards of the field. d respond to reviewers' su course:	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera Course language: Notes: Course assessment	riginal scientific knowled al standards of the field. d respond to reviewers' su course:	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera Course language: Notes: Course assessment	riginal scientific knowled al standards of the field. d respond to reviewers' su course: nture: ssed students: 0	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to ggestions, to finalize his own ideas.
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera Course language: Notes: Course assessment	riginal scientific knowled al standards of the field. d respond to reviewers' su course: nture: ssed students: 0 abs	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to ggestions, to finalize his own ideas.
as to generate new of qualitative and ethic critically evaluate and Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	riginal scientific knowled al standards of the field. d respond to reviewers' su course: nture: ssed students: 0 abs 0.0	heories and concepts in an innovative way, as well ge, which he can publish according to the highest The doctoral student demonstrates the ability to ggestions, to finalize his own ideas.

Faculty: Faculty of S		
- acurey of D	science	
Course ID: ÚCHV/ MONA/22	Course name: Monograph	in a renowned publishing house
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr	redits: 40	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Co-author of a mono	se completion: graph in a renowned publish	ning house.
level of ability to iden He demonstrates the	ntify, evaluate, and apply co- ability to reflect on a scien	shing house, the PhD student demonstrates a high rrect scientific methods or research methodology. tific problem by using the latest approaches and
in an innovative way publish according to	y, as well as to generate no the highest qualitative and e	ompetence to use existing theories and concepts ew original scientific knowledge, which he can ethical standards of the field. The doctoral student respond to reviewers' suggestions, to finalize his
in an innovative way publish according to demonstrates the abil	y, as well as to generate no the highest qualitative and e lity to critically evaluate and	ew original scientific knowledge, which he can thical standards of the field. The doctoral student
in an innovative way publish according to demonstrates the abil own ideas.	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course:	ew original scientific knowledge, which he can thical standards of the field. The doctoral student
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course:	ew original scientific knowledge, which he can thical standards of the field. The doctoral student
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course:	ew original scientific knowledge, which he can thical standards of the field. The doctoral student
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in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera Course language: Notes: Course assessment	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course: ature:	ew original scientific knowledge, which he can thical standards of the field. The doctoral student
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera Course language: Notes: Course assessment	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course: ature: ssed students: 0	ew original scientific knowledge, which he can ethical standards of the field. The doctoral student respond to reviewers' suggestions, to finalize his
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera Course language: Notes: Course assessment	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course: ature: ssed students: 0 abs	ew original scientific knowledge, which he can ethical standards of the field. The doctoral student respond to reviewers' suggestions, to finalize his
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	y, as well as to generate no the highest qualitative and e lity to critically evaluate and course: ature: ssed students: 0 abs 0.0	ew original scientific knowledge, which he can ethical standards of the field. The doctoral student respond to reviewers' suggestions, to finalize his

University: P. J. Šafárik	University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/	Course name: Nitrogen heterocycles
HZD/04	

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:

Course level: III.

Prerequisities:

Conditions for course completion:

Students must actively work during the course in a close collaboration with a teacher.

Student may only miss 1 practice.

Written exam - 100 pts. A minimum of 51 points must be obtained.

Assessment A: 91-100; B: 81-90; C: 71-80; D: 60-71; E: 51-60; FX: 0-50 pts.

Learning outcomes:

The aim of the course is to obtain the knowlegde about nitrogen heterocycles, their synthesis, reactivity as well as relationship between structure and biological properties.

Brief outline of the course:

Signification, synthesis and chemical properties of different types of nitrogen heterocyclic systems. Natural substances containing nitrogen heterocycles, biological activity and drugs based on nitrogen heterocycles and their synthesis.

Attention will be paid to aromatic and non-aromatic compounds, including their biological properties and application in organic synthesis.

A. Aromatic heterocycles

1. Six-membered heterocycles with one heteroatom (pyridine, acridine, quinoline, isoquinoline)

2. Five-membered heterocycles with one heteroatom (pyrrole, indole)

3. Six-membered heterocycles with two or more heteroatoms (pyrimidine, pyridazine, pyrazine, purine, pteridine)

4. Five-membered heterocycles with two heteroatoms (oxazole, isoxazole, thiazole, isothiazole, imidazole, pyrazole)

B. Non-aromatic heterocycles (morpholine, piperidine, piperazine)

Recommended literature:

1. Comprehensive Heterocyclic Chemistry; Katritzky A. R., Rees C. W., Eds., Pergamon Press, Oxford, 1984.

2. Gilchrist T. L.: Heterocyclic Chemistry, Longman, Harlow, 1992.

3. Eichler T., Hauptmann S.: The Chemistry of Heterocycles, Wiley-VCH, Weinheim 2003.

Course language:

Slovak and English

Notes:	
Course assessment Total number of assessed students: 18	
N	Р
0.0	100.0
Provides: doc. RNDr. Mariana Budovská, PhD.	
Date of last modification: 17.11.2021	
Approved: doc. RNDr. Miroslava Martinková, PhD., u	niverzitná profesorka

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ NRZ/22	Course name: Non-Review	wed International or National Proceedings
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:	
Number of ECTS cr	edits: 2	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours A publication publish		gn or national journal as an author/co-author.
demonstrates the abi methodology. He dem approaches and apply and concepts in an in- he can publish accord	lity to identify, evaluate, a monstrates the ability to re ring them critically. He dem novative way, as well as to g rding to the highest qualitat	hal journal as an author/co-author, the PhD student and apply correct scientific methods or research flect on a scientific problem by using the latest nonstrates the competence to use existing theories generate new original scientific knowledge, which tive and ethical standards of the field. The phD wn thoughts in a written speech.
Brief outline of the c	ourse:	
Recommended litera		
	ture:	
Course language:	iture:	
	iture:	
Course language:		
Course language: Notes: Course assessment		n
Course language: Notes: Course assessment Total number of asse	ssed students: 20	n 0.0
Course language: Notes: Course assessment Total number of asse	ssed students: 20 abs	
Course language: Notes: Course assessment Total number of asse	ssed students: 20 abs 100.0	

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ PVS/04	Course name: Patents, In	ventions, Software
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:	
Number of ECTS cr	edits: 2	
Recommended seme	ster/trimester of the cou	·se:
Course level: III.		
Prerequisities:		
Conditions for cours Patent filed, invention	e completion: n, software product created	1.
	onstrates the ability to cre interdisciplinary scale or i	ate an innovative product in a given scientific field, n technical practice.
Brief outline of the c	ourse:	
Recommended litera	ture:	
Course language:		
Notes:		
Course assessment Total number of asses	ssed students: 0	
	abs	n
	0.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	
Approved: doc. RND	r. Miroslava Martinková.	PhD., univerzitná profesorka

University: P. J. Šafărik 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: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessm	
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: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro university-level professional subjects. Identify and specify educational procedures of a uni teacher aimed at effective teaching management, pedagogical diagnostics, and assessm	
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Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro- university-level professional subjects. Identify and specify educational procedures of a uni teacher aimed at effective teaching management, pedagogical diagnostics, and assessm	
Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro-university-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessment	
Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessmination	
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 Development of a teaching diary—100% Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro-university-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessment 	
After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro- university-level professional subjects. Identify and specify educational procedures of a uni- teacher aimed at effective teaching management, pedagogical diagnostics, and assessme	
learning outcomes. Recognize different approaches to pedagogical evaluation and their implement effective educational process at the university level. Skills Implement effective educational methods and techniques into the teaching of professional su tailored to the needs of university students. Conduct pedagogical diagnostics, assess st progress, and apply appropriate evaluation methods to improve learning outcomes. Analy reflect on one's own teaching process, identify areas for improvement, and enhance the te of professional subjects, including the rationalization of the time and content structure of tea Present specific proposals for improving the teaching process, including the use of new technol and innovative pedagogical approaches. Competencies Confidently and effectively manage the teaching of university subjects, applying educ competencies that consider the specifics of higher education. Critically reflect on one pedagogical practice and the learning outcomes of students to improve teaching metho achieve a higher quality of the educational process. Apply innovative solutions to streamli optimize the teaching process, aiming to increase the engagement and success of university streamling outcomes is process.	iss of ersity nt of ct or jects lents e and ching hing

The personality of a university teacher. Teaching styles. Student in university education. Student learning styles. Possibilities of adapting teaching styles and student learning styles. University teacher–student interaction and communication in the teaching process. Pedagogical competencies

of a university teacher. Didactic analysis of the curriculum; teaching materials and textbooks. Forms of university teaching. Methods of university teaching. Verification methods and student assessment. Creation of a didactic test. Designing university teaching process. University teacher self-reflection.

Recommended literature:

Beránek, J. (2023). Moderní pedagogické metody a přístupy. Praha: Portál.

Fiala, M. (2023). Didaktika a metodika v současné škole. Praha: Grada Publishing.

Kováč, M. (2023). Vzdelávanie v 21. storočí: Inovatívne prístupy a metódy. Nitra: Vydavateľstvo UKF v Nitre.

Koudelka, J. (2023). Moderní didaktika a její aplikace. Praha: Karolinum.

Křížová, M., & Šebová, P. (2023). Vzdělávání učitelů: Teoretické a praktické přístupy. Praha: Triton.

Kučerová, M. (2023). Vzdělávání učitelů a profesionální rozvoj. Praha: Triton.

Mocová, M., & Lázňovská, M. (2023). Pedagogika a jej aplikácie v praxi. Bratislava:

Vydavateľstvo Spolku slovenských pedagogických pracovníkov.

Novák, J., & Pol, M. (2024). Pedagogické výzkumy a inovace ve vzdělávání. Praha: Portál.

Sikora, J. (2022). Didaktika a metodika vzdelávania: Nové výzvy a trendy. Bratislava:

Vydavateľstvo Univerzity Komenského v Bratislave.

Škoda, J. (2022). Efektivní výuka: Praktické strategie a metody. Praha: Grada Publishing. Švec, J. (2023). Didaktika a školní politika: Teorie a praxe. Praha: Grada Publishing. Vojtová, K. (2024). Diferenciace a inkluze ve vzdělávání. Praha: Wolters Kluwer.

Course language:

slovak

Notes:		
Course assessment		
Total number of assessed students: 1	.21	
abs	n	neabs
98.35	0.0	1.65
Provides: doc. PaedDr. Renáta Oros	ová, PhD.	·
Date of last modification: 14.09.20	24	
		/ 0 1

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ POPV/22	Course name: Popularisat	ion of science
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:	
Number of ECTS cr	edits: 5	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Active involvement i	e completion: n the popularization of scien	nce.
communication, iden professional knowled	tify the target group and ac	lay public, use interactive methods of scientific lapt the communication language to the level of arouse interest and motivate specific target groups wider context of science
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 36	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	

	COURSE INFORMATION LETTER
University: P. J. Šafá	arik University in Košice
Faculty: Faculty of S	Science
Course ID: ÚCHV/ PAKM/04	Course name: Practical application of quantum chemical methods in organic chemistry
Course type, scope a Course type: Lectu Recommended cou Per week: 2 / 2 Per Course method: pro	re / Practice prse-load (hours): p study period: 28 / 28
Number of ECTS cr	·edits: 8
Recommended seme	ester/trimester of the course:
Course level: III.	
Prerequisities:	
In order to pass thi requirements: Studen practise part of the c percent of the total m on the basis of the m	se completion: In consist of written and/or oral examination as the examiner may determine. A consist of written and/or oral examination as the examiner may determine. A course, each student must complete ALL of the following compulsory ints may only miss 1 practise session. Students must actively work during a ourse in a close collaboration with a teacher. Students must obtain at least 51 number of points of the written examination. The final evaluation is assigned the written examination. Students are assigned a grade in the course as A), 90 - 81% (B), 80 - 71% (C), 70 - 61% (D), 60 - 51% (E), 50% and less FX.
of small and mediur understand the scope and assess their deg acquired in the exerc	with a basic orientation in current quantum chemical methods used in the study m-sized organic molecules. The acquired knowledge will enable students to e and limitations of various theoretical models in solving chemical problems ree of reliability and suitability for various types of calculations. The skills size will allow them to performe the basic types of calculations using available ac, Molden, Gamess, Gaussian,) and analyze the obtained results.
Brief outline of the o 1. Overview of curre (semiempirical, ab-in	ent quantum mechanical models in chemistry.

(semiempirical, ab-initio, post-HF, DFT)

2. Conformational analysis and structure optimization of small and medium molecules. (minimization algorithms, description of PES)

3. Basic procedures for investigating the reaction pathways of chem. reactions.

(localization of PES saddle point structures, TS optimization, IRC, calculation of thermodynamic parameters)

4. Qualitative theories and their practical application.

(frontier orbital theory, BEP principle - Hammond's postulate)

5. Calculations of molecular properties.

(vibrational, electronic and NMR spectra, optical properties, electrostatic potential, ...)

6. Solvation models.

(SCRF, PCM, COSMO)

Recommended literature:

1. Foresman, J. B., Frisch, A.: Exploring Chemistry with electronic structure method. Gaussian Inc., 1996.

2. Jensen, F.: Introduction to computational chemistry, J. Willey&Sons, 1998.

3. Leach, A.R.: Molecular modelling. Principles and applications. Longman, 1996.

Course language:

slovak, english

Notes:

Teaching is carried out in person or, if necessary, online using the MS Teams platform. The form of teaching is specified by the teacher at the beginning of the semester, updated continuously.

Course assessment

Total number of assessed students: 5

Ν	Р
0.0	100.0

Provides: doc. RNDr. Ladislav Janovec, PhD.

Date of last modification: 10.01.2022

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ VYS/22	Course name: Presentation	n in Seminar
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS credits: 5		
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Presentation at the se	-	
evaluate, and apply of	-	hD student demonstrates the ability to identify, r research methodology in his field of study. He
an innovative way, a	s well as generating new o	betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language
an innovative way, a	s well as generating new o lequate means and through s	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac	s well as generating new o lequate means and through s ourse:	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac Brief outline of the c	s well as generating new o lequate means and through s ourse:	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac Brief outline of the c Recommended litera	s well as generating new o lequate means and through s ourse:	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac Brief outline of the c Recommended litera Course language:	s well as generating new o lequate means and through s ourse: nture:	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac Brief outline of the c Recommended litera Course language: Notes: Course assessment	s well as generating new o lequate means and through s ourse: nture:	betence in using existing theories and concepts in riginal scientific knowledge and communicating
an innovative way, a research results by ac Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	s well as generating new o lequate means and through s ourse: nture: ssed students: 9	betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language
an innovative way, a research results by ac Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	s well as generating new o lequate means and through s ourse: nture: ssed students: 9 abs	n
an innovative way, a research results by ac Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	s well as generating new o lequate means and through s ourse: nture: ssed students: 9 abs 100.0	n

University: P J Šafá	 rik University in Košic	ce	
Faculty: Faculty of S			
		pal investigator of an internal grant (VVGS)	
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:		
Number of ECTS cr	edits: 10		
Recommended seme	ster/trimester of the c	course:	
Course level: III.			
Prerequisities:			
Conditions for cours Principal investigator	e completion: of an internal grant (V	VVGS)	
their time schedule, it the internal VVGS g established procedure	neasurable outputs and rant acquires the abilit e, to be responsible for	JPJŠ. Acquires skills with the design of research stages ad adequate distribution of funds. The very solution of ty to implement the project intention according to the achieving the set outputs. As a responsible researcher roject management, its administration, and presentation	
Brief outline of the c	ourse:		
Recommended liters	iture:		
Course language:			
Notes:			
Course assessment Total number of asse	ssed students: 17		
abs n		n	
	100.0	0.0	
		0.0	
Provides: Date of last modifica	100.0	0.0	

	COURSE INFORMATION LETTER
University: P. J. Šafa	árik University in Košice
Faculty: Faculty of S	Science
Course ID: KPPaPZ/PsVU/17	Course name: Psychology for University Lecturers
Course type, scope a Course type: Lectu Recommended cou Per week: Per stud Course method: di	ure urse-load (hours): dy period: 28s
Number of ECTS credits: 5	
Recommended seme	ester/trimester of the course:
Course level: III.	
Prerequisities:	
Learning outcomes: After completing the summarize and explay motivation psycholo health psychology. The for the professional, to create and implement and develop the conthe application of pherication of the professional of the the second se	atput, its analysis as of the course are listed in the electronic bulletin board of the course. The course, students will gain knowledge that allows them to understand, ain selected psychological knowledge from cognitive psychology, emotion and gy, personality psychology, developmental, social, educational psychology and They will acquire skills to apply the above psychological knowledge necessary competent performance of university teaching practice of doctoral students nent the teaching of a professional topic with applied psychological knowledge mpetences to create and implement teaching of a professional topic with osychological knowledge, as well as to evaluate their performance and the classmates in the form of constructive feedback.
psychology of emotion psychology and hear interactive, experient of independence, act in the teaching processocial and competent student relationship of	ourse is based on selected psychological knowledge of cognitive psychology, ons and motivation, personality psychology, developmental, social, educational alth psychology. Teaching is realized by a combination of lectures with tial methods, discussion, open communication with mutual respect, support tivity and motivation of students. Syllabus: University teacher and his work tess with a focus on: teachers in relation to themselves (cognitive, personal, ncies in the use of methods), in relation to students and as part of the teacher- on the basis of selected areas of cognitive psychology, psychology of emotions elopmental 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, 20 Čáp, J., Mareš, J.: Psychologie pro Vágnerová, M.: Školní poradenská	učitele. Praha: Portál 2007.	raha: Karolínum 2005.
Course language: slovak		
Notes:		
Course assessment Total number of assessed students:	87	
abs	n	neabs
98.85	0.0	1.15
Provides: PhDr. Anna Janovská, Pl	nD.	
Date of last modification: 02.12.2	024	
Approved: doc. RNDr. Miroslava	Martinková, PhD., univerzitná	i profesorka

University: P. J. Šafá	rik University in Košic	e		
Faculty: Faculty of S	cience			
Course ID: ÚCHV/ Q1SA/22	Course name: Q1 jou	Irnal as co-author		
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): y period:			
Number of ECTS cr	edits: 30			
Recommended seme	ster/trimester of the c	ourse:		
Course level: III.				
Prerequisities:				
Conditions for cours Publication accepted	e completion: in a journal of category	y Q1 as co-author.		
He demonstrates the applying them critica an innovative way, as according to the high	ability to reflect on a solution in the second seco	by correct scientific methods or research methodology. scientific problem by using the latest approaches and ne competence to use existing theories and concepts in w original scientific knowledge, which he can publish al standards of the field. The PhD student demonstrates to reviewers' suggestions, to finalize his own ideas.		
Brief outline of the c	ourse:			
Recommended litera	iture:			
Course language:				
Notes:				
Course assessment	ssed students: 10			
Total number of asse	abs n			
Total number of asse	abs			
Total number of asse	abs 100.0	n 0.0		
Total number of asse Provides: Date of last modifica	100.0			

	University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science			
Course ID: ÚCHV/ Q11A/22	Course name: Q1 journal	as first or corresponding author	
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): ly period:		
Number of ECTS credits: 40			
Recommended semester/trimester of the course:			
Course level: III.			
Prerequisities:			
Conditions for cours Publication accepted	-	as first or corresponding author.	
demonstrates a high	degree of ability to identify	e first or corresponding author, the PhD student y, evaluate, and apply correct scientific methods	
theories and concepts which he can publish	and applying them critically in an innovative way, as wel according to the highest q trates the ability to critically	bility to reflect on a scientific problem by using the demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The two evaluate and respond to reviewers' suggestions,	
theories and concepts which he can publish PhD student demonst	and applying them critically in an innovative way, as wel according to the highest q trates the ability to critically eas	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera Course language:	and applying them critically in an innovative way, as wel a according to the highest q trates the ability to critically eas ourse: nture:	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	and applying them critically in an innovative way, as wel a according to the highest q trates the ability to critically eas ourse: nture:	. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	and applying them critically in an innovative way, as well a according to the highest q trates the ability to critically eas nourse: nture: ssed students: 10	A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The v evaluate and respond to reviewers' suggestions,	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas nourse: nture: ssed students: 10 abs	he demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The revaluate and respond to reviewers' suggestions,	
theories and concepts which he can publish PhD student demonst to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas ourse: nture: ssed students: 10 abs 100.0	he demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The revaluate and respond to reviewers' suggestions,	

Eagultry Eagultry - f.O	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q2SA/22	Course name: Q2 journal	as co-author
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS credits: 20		
Recommended semester/trimester of the course:		
Course level: III.		
Prerequisities:		
Conditions for course Publication accepted	e completion: in a journal of category Q2	as co-author.
He demonstrates the applying them critica an innovative way, as according to the high	ability to reflect on a scien lly. He demonstrates the con- s well as to generate new or	brrect scientific methods or research methodology. tific problem by using the latest approaches and mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish
the ability to criticall		indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas.
Brief outline of the c	y evaluate and respond to re	
	y evaluate and respond to re ourse:	
Brief outline of the c	y evaluate and respond to re ourse:	
Brief outline of the c Recommended litera	y evaluate and respond to re ourse:	
Brief outline of the c Recommended litera Course language:	y evaluate and respond to re ourse: nture:	
Brief outline of the c Recommended litera Course language: Notes: Course assessment	y evaluate and respond to re ourse: nture:	
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	y evaluate and respond to re ourse: nture: ssed students: 7	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	y evaluate and respond to re ourse: nture: ssed students: 7 abs	n
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	y evaluate and respond to re ourse: nture: ssed students: 7 abs 100.0	n

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q21A/22	Course name: Q2 journal	as first or corresponding author
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS credits: 30		
Recommended seme	ster/trimester of the cours	se:
Course level: III.		
Prerequisities:		
Conditions for course Publication accepted		as first or corresponding author.
demonstrates a high or research methodo the latest approaches theories and concepts which he can publish	degree of ability to identif logy. He demonstrates the and applying them critically in an innovative way, as we h according to the highest of trates the ability to critically	he first or corresponding author, the PhD student by, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing ll as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
Brief outline of the c		
Brief outline of the c Recommended litera	ourse:	
	ourse:	
Recommended litera	ourse:	
Recommended litera Course language:	ourse: ature:	
Recommended litera Course language: Notes: Course assessment	ourse: ature:	n
Recommended litera Course language: Notes: Course assessment Total number of asse	sourse: nture: ssed students: 15	
Recommended litera Course language: Notes: Course assessment Total number of asse	sourse: nture: ssed students: 15 abs	
Recommended litera Course language: Notes: Course assessment Total number of asse	sourse: nture: ssed students: 15 abs 100.0	

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q3SA/22	Course name: Q3 journal	as co-author
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: 15	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	e completion: in a journal of category Q3	as co-author.
degree of ability to id He demonstrates the applying them critica an innovative way, as according to the high	entify, evaluate, and apply co ability to reflect on a scien lly. He demonstrates the con s well as to generate new or est qualitative and ethical sta	co-author, the PhD student demonstrates a high prrect scientific methods or research methodology. atific problem by using the latest approaches and mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish undards of the field. The PhD student demonstrates
	y evaluate and respond to re	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c		eviewers' suggestions, to finalize his own ideas.
	ourse:	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c	ourse:	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera	ourse:	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera Course language:	ourse: nture:	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera Course language: Notes: Course assessment	ourse: nture:	eviewers' suggestions, to finalize his own ideas.
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	ourse: nture: ssed students: 5	
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	ourse: nture: ssed students: 5 abs	n
Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	ourse: hture: ssed students: 5 abs 100.0	n

Faculty: Faculty of S		
racuity. racuity of S	cience	
Course ID: ÚCHV/ Q31A/22	Course name: Q3 journal	as first or corresponding author
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: 25	
Recommended seme	ester/trimester of the cours	se:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	-	as first or corresponding author
or research methodo		y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using
theories and concepts which he can publish	and applying them critically in an innovative way, as we h according to the highest of trates the ability to critically	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language:	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language:	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas.	y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically leas. course: ature: ssed students: 4	y. He demonstrates the competence to use existing ll as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas. course: ature: ssed students: 4 abs	n
theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	and applying them critically in an innovative way, as we haccording to the highest of trates the ability to critically eas. course: ature: ssed students: 4 abs 100.0	n

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q4SA/22	Course name: Q4 journal	as co-author
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: 10	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	e completion: in a journal of category Q4	as co-author.
degree of ability to id He demonstrates the applying them critica an innovative way, as according to the high	entify, evaluate, and apply co ability to reflect on a scien lly. He demonstrates the co s well as to generate new or est qualitative and ethical sta	co-author, the PhD student demonstrates a high prrect scientific methods or research methodology. tific problem by using the latest approaches and mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish undards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas.
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Notes:		
Course assessment	ssed students: 1	
Total number of asse	abs n	
Total number of asse		n
		n 0.0
	abs	
	abs 100.0	

	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q41A/22	Course name: Q4 journal a	as first or corresponding author
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro	rse-load (hours): ly period:	
Number of ECTS credits: 20		
Recommended seme	ester/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for course Publication accepted	1	as first or corresponding author.
demonstrates a high or research methodo the latest approaches theories and concepts which he can publish	degree of ability to identify logy. He demonstrates the a and applying them critically in an innovative way, as wel h according to the highest q trates the ability to critically	e first or corresponding author, the PhD student y, evaluate, and apply correct scientific methods bility to reflect on a scientific problem by using y. He demonstrates the competence to use existing l as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Course language: Notes:		
0.00	ssed students: 0	
Notes: Course assessment	ssed students: 0 abs	n
Notes: Course assessment		n 0.0
Notes: Course assessment	abs	
Notes: Course assessment Total number of asse	abs 0.0	

Faculty: Faculty of S		University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science				
Course ID: ÚCHV/ RZ/22				
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: 5			
Recommended seme	ster/trimester of the cours	e:		
Course level: III.				
Prerequisities:				
Conditions for cours A publication publish	-	gn or national proceedings as an author/co-author.		
By publishing in a peer-reviewed foreign or national journal as an author/co-author, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology. He demonstrates the ability to reflect on a scientific problem by using the latest approaches and applying them critically. He demonstrates the competence to use existing theories and concepts in an innovative way, as well as to generate new original scientific knowledge, which he can publish according to the highest qualitative and ethical standards of the field. The PhD student demonstrates the ability to critically evaluate and respond to reviewers' suggestions, to finalize his own ideas				
PhD student demons to finalize his own id	h according to the highest q trates the ability to critically eas	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c	h according to the highest q trates the ability to critically eas	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera	h according to the highest q trates the ability to critically eas	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language:	h according to the highest q trates the ability to critically eas	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes:	h according to the highest q trates the ability to critically eas	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language:	h according to the highest q trates the ability to critically eas course: ature:	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	h according to the highest q trates the ability to critically eas course: ature:	ualitative and ethical standards of the field. The		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	h according to the highest q trates the ability to critically eas course: ature: ssed students: 85	ualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,		
PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment	h according to the highest q trates the ability to critically eas course: ature: ssed students: 85 abs	n		
PhD student demons to finalize his own id Brief outline of the o Recommended litera Course language: Notes: Course assessment Total number of asse	h according to the highest q trates the ability to critically eas course: ature: ssed students: 85 abs 100.0	n		

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ SCI/22	CHV/ 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 cr		
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Obtained citation reg	e completion: istered in SCI or Scopus.	
Learning outcomes: Obtaining a citation demonstrates broad and very well-founded scientific knowledge in the researched field, based on the ability to formulate research questions, to reflect on a scientific problem in such a way that generates new knowledge. At the same time, a citation in an indexed source demonstrates the competence to communicate new knowledge, which is a significant contribution to scientific knowledge, at the highest expert level.		
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 24		
	abs	n
	100.0	0.0
Provides:	100.0	0.0
		0.0

University: P. J. Šafárik University in Košice		
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ CHSA/04	Course name: Saccharides	
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:		
Course level: III.		

Prerequisities:

Conditions for course completion:

Student must actively work during semester (seminar written discussion). The preparation of the material on the application of carbohydrates as the useful chirons in the stereoselective synthesis of the various natural products and its oral presentation.

The terminal examination consists of written and oral part.

Terminal examination by written form and oral presentation of the resolved synthetic problems, followed by subsequent discussion with the examiner.

The witten part is evaluated as follows: 100-91% of points = A, 90-81% of points = B, 80-71% of points = C, 70-61% = D, 60-51% of points = E, 50% and less = FX.

The final evaluation is based on combination of the obtained results from both parts.

Learning outcomes:

The general review on carbohydrate chemistry and applications of the simple saccharide molecules as chirons (chiral-pool strategy) in modern stereoselective syntheses of various natural products and their analogues involving multiple stereogenic centers.

Brief outline of the course:

General introduction, nomenclature of monosaccharides, configuration and stereochemistry of monosaccharides (the Fischer projection, the Haworth projection, conformation of sugars). Reactions of monosaccharides (reactions of carbonyl groups and hydroxyl groups, protective group strategies, production of ethers, esters, acetals, ketals. Monosaccharide derivatives, their nomenclature and preparation. Ascending and descending reactions of monosaccharides. Functionalization of saccharides. Nucleophilic substitutions, oxidations, reaction of the anomeric carbon. Glycosylation methods. Synthesis of C-, N- and O-glycosides. Oligosaccharide synthesis. Application of monosaccharides and their derivatives as the chiral templates in the stereoselective organic synthesis.

Recommended literature:

Levy, D. E., Fügedi, P.: The organic chemistry of sugars. Taylor & Francis Group, LLC 2006, ISBN: 0-8247-5355-0.

2. El Khadem, H. S.: Carbohydrate Chemistry: Monosaccharides and Their Oligomers. Academic Press 1988, INC. (London) Ltd., ISBN: 0-12-236870-3.

 Miljković, M.: Carbohydrates. Synthesis, mechanisms and stereoelectronic effects. Springer Science and Business Media, LLC, New York, 2009. ISBN: 978-0-387-92265-2.
 Sinnott, M. L.: Carbohydrate Chemistry and Biochemistry. RSC Publishing 2007, UK, .ISBN 978-0-85404-256-2.

Course language: anglický		
č	sary, online, using the MS Teams tool. The form of ginning of the semester, updated continuously.	
Course assessment Total number of assessed students: 29		
N P		
0.0 100.0		
Provides: doc. RNDr. Miroslava Martinková	á, PhD., univerzitná profesorka	
Date of last modification: 20.11.2021		
	vá, PhD., univerzitná profesorka	

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
ourse ID: ÚCHV/Course name: Scientific work after sending to the editorial officePZ/22		
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr		
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Scientific work after	be completion: being sent to the editorial of	ffice as an author/co-author.
demonstrates a high or research methodo the latest approaches theories and concepts which he can publish	degree of ability to identify logy. He demonstrates the a and applying them critically in an innovative way, as wel a according to the highest q	fic journal as an author/co-author, the PhD student y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The his own ideas in a structured form.
Brief outline of the c	ourse:	
Recommended litera	iture:	
Course language:		
Course language.		
Notes:		
0.0	ssed students: 4	
Notes: Course assessment	ssed students: 4 abs	n
Notes: Course assessment Total number of asse		n 0.0
Notes: Course assessment Total number of asse	abs	
Notes: Course assessment Total number of asse	abs 100.0	

Faculty: Faculty of Science

Course ID: Dek. PF	Course name: Spring School for PhD Students
UPJŠ/JSD/14	

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

Course method: distance, present

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:

Active participation in the Spring School of PhD students of UPJŠ.

Learning outcomes:

By actively participating in the Spring School of PhD Students of UPJŠ, the PhD student demonstrates a high level of ability to process the issues of his dissertation for a multidisciplinary audience with an emphasis on clarifying the motivation, scientific problem, processing methodology and own contribution to the solution of the selected topic. The PhD student demonstrates the ability to professionally discuss various research topics, present his own positions and accept a plurality of opinions. Demonstrates the ability to communicate research results to a wider professional audience with adequate means and through the Slovak language.

Brief outline of the course:

1. Interdisciplinary lectures from the fields of medicine, natural sciences, law, public affairs, humanities. Lecturers - top foreign or national experts from the mentioned fields.

2. Scientific lectures in sections created within related disciplines. Lecturers - top experts from UPJŠ from the mentioned fields.

3. Scientific contributions of PhD students in sections of related fields.

4. Panel discussions on the issue of PhD studies and current trends in the development of scientific disciplines at UPJŠ.

Recommended literature:

Proceedings of the Spring School of Doctoral Students.

Course language:

Notes:

Course assessment

Total number of assessed students: 202

abs	n
100.0	0.0

Provides: doc. RNDr. Andrea Straková Fedorková, PhD.

Date of last modification: 08.11.2022

Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka

University: P. J. Sala		
 ЕЦ ГЦ f f	rik University in Košice	
Faculty: Faculty of Science		
Course ID: ÚCHV/ VPSV/22	Course name: Supervision	n of a Students Scientific Work
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: 8	
Recommended seme	ester/trimester of the cours	se:
Course level: III.		
Prerequisities:		
1	ent's Scientific Activity	
scientifically based k	nt within the SOČ or ŠV nowledge in the field of stud	OČ, the PhD student demonstrates broad and y, as well as knowledge of a wide range of methods
solution, as well as to		ally assess a professional problem and its proposed pose another solution. He applies knowledge and is own field.
solution, as well as to	o evaluate it and possibly pro of pedagogical sciences to h	pose another solution. He applies knowledge and
solution, as well as to skills from the field of	o evaluate it and possibly pro of pedagogical sciences to h course:	pose another solution. He applies knowledge and
solution, as well as to skills from the field of Brief outline of the c	o evaluate it and possibly pro of pedagogical sciences to h course:	pose another solution. He applies knowledge and
solution, as well as to skills from the field of Brief outline of the of Recommended litera	o evaluate it and possibly pro of pedagogical sciences to h course:	pose another solution. He applies knowledge and
solution, as well as to skills from the field of Brief outline of the of Recommended litera Course language:	o evaluate it and possibly pro of pedagogical sciences to h course: ature:	pose another solution. He applies knowledge and
solution, as well as to skills from the field of Brief outline of the of Recommended litera Course language: Notes: Course assessment	o evaluate it and possibly pro of pedagogical sciences to h course: ature:	pose another solution. He applies knowledge and
solution, as well as to skills from the field of Brief outline of the of Recommended litera Course language: Notes: Course assessment	evaluate it and possibly pro of pedagogical sciences to h course: ature: essed students: 6	opose another solution. He applies knowledge and is own field.
solution, as well as to skills from the field of Brief outline of the of Recommended litera Course language: Notes: Course assessment	evaluate it and possibly pro of pedagogical sciences to h course: ature: essed students: 6 abs	pose another solution. He applies knowledge and is own field.
solution, as well as to skills from the field of Brief outline of the o Recommended litera Course language: Notes: Course assessment Total number of asse	evaluate it and possibly pro of pedagogical sciences to h course: ature: essed students: 6 abs 100.0	pose another solution. He applies knowledge and is own field.

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ Course name: Teaching activities 1 h/s PPC1/22		
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 cours	se:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Direct teaching activity 1 semester hour		
Learning outcomes: Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.		
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 11		
abs	n	
100.0	0.0	
Provides:	·	
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka		

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ Course name: Teaching activities 2 h/s PPC2/22		
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period:		
Course method: pres	ent	
Number of ECTS crea	dits: 4	
Recommended semest	ter/trimester of the course	e:
Course level: III.		
Prerequisities:		
Conditions for course Direct teaching activity	-	
Learning outcomes: Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.		
Brief outline of the course:		
Recommended literat	ure:	
Course language:		
Notes:		
Course assessment Total number of assessed students: 15		
8	abs	n
10	00.0	0.0
Provides:		
Date of last modificati	ion: 08.11.2022	
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka		

COURSE INFORMATION LETTER		
University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ Course name: Teaching activities 3 h/s PPC3/22		
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	se:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Direct teaching activity 3 semester hours		
Learning outcomes: Through pedagogical activity, the PhD student demonstrates the ability to transfer and integrate knowledge from his own field of study into education. He is able to select and apply the right techniques and strategies of study group management, higher education and evaluation of learning outcomes. He is capable of designing and implementing part of the educational process in accordance with current trends in higher education and the requirements placed on the level of communication and digital competencies.		
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 5		
abs	n	
100.0	0.0	
Provides:		
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka		

University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science				
Course ID: ÚCHV/ Course name: Teaching activities 4 h/s PPC4/22				
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present				
Course method: present Number of ECTS credits: 8				
Recommended semester/trimester of the cours	e •			
Course level: III.				
Prerequisities:				
knowledge from his own field of study into right techniques and strategies of study group r learning outcomes. He is capable of designing a	demonstrates the ability to transfer and integrate education. He is able to select and apply the nanagement, higher education and evaluation of nd implementing part of the educational process ation and the requirements placed on the level of			
Recommended literature:				
Course language:				
Notes:				
Course assessment Total number of assessed students: 11				
abs	n			
100.0	0.0			
Provides:				
Date of last modification: 08.11.2022				
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka				

University: P. J. Šafárik University in Košice						
Faculty: Faculty of Science						
Course ID: ÚCHV/ KZP/22	Course name: Thesis consultant					
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present						
Number of ECTS cr	Number of ECTS credits: 4					
Recommended semester/trimester of the course:						
Course level: III.						
Prerequisities:						
Conditions for course completion: Final thesis consultant.						
Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically based knowledge in the field of study, as well as knowledge of a wide range of methods and approaches. Demonstrates the ability to critically assess a professional problem and its proposed solution, as well as to evaluate it and possibly propose another solution. He applies knowledge and skills from the field of pedagogical sciences to his own field.						
Brief outline of the course:						
Recommended literature:						
Course language:						
Notes:						
Course assessment Total number of asses	ssed students: 46					
	abs	n				
	100.0	0.0				
Provides:						
Provides:		Date of last modification: 08.11.2022				
	tion: 08.11.2022					

University: P. J. Šafárik University in Košice				
Faculty: Faculty of Science				
Course ID: ÚCHV/ VZP/22	Course name: Thesis supervising			
Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present				
Number of ECTS cr	edits: 8			
Recommended seme	ster/trimester of th	e course:		
Course level: III.				
Prerequisities:				
Conditions for course completion: Supervisor of the final thesis.				
knowledge in the field Demonstrates the abi	d of study, as well as lity to critically asso and possibly propose	D student demonstrates broad and scientifically based knowledge of a wide range of methods and approaches. ess a professional problem and its proposed solution, as another solution. He applies knowledge and skills from yn field.		
Brief outline of the c	ourse:			
Recommended litera	ture:			
Course language:				
Notes:				
Course assessment Total number of asses	ssed students: 2			
	abs	n		
	100.0	0.0		
Provides:				
Date of last modification: 08.11.2022				
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka				

University: P. J. Šafá	rik University in Košice				
Faculty: Faculty of S	cience				
Course ID: ÚCHV/ PDS/22	Course name: Writing Dis	ssertation Work			
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:				
Number of ECTS cr	edits: 20				
Recommended seme	Recommended semester/trimester of the course:				
Course level: III.					
Prerequisities:					
regulations, preparati Learning outcomes: The PhD student dem the conditions prescr	d number of credits in the pr on and defense of the thesis, onstrated the prerequisites fo	escribed composition according to the UPJŠ study successfully completed dissertation examination. or successful continuation of the study by fulfilling as for the study and scientific part of the doctoral			
Brief outline of the c	ourse:				
Recommended litera	ture:				
Course language:					
Notes:					
Course assessment Total number of asses	ssed students: 12				
	Ν	Р			
	0.0	100.0			
Provides:					
Date of last modification: 08.11.2022					
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka					