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28. Pedagogy for University Teachers	
29. Popularisation of science	
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34. Q1 journal as co-author	
35. Q1 journal as first or corresponding author	
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53. Thesis supervising	
54. Writing Dissertation Work	

University: P. J. Šafárik University in Košice			
Faculty: Faculty of Science			
Course ID: ÚCHV/ COK/22Course name: Certified training course			
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:		
Number of ECTS cr			
Recommended seme	ster/trimester of the cours	e:	
Course level: III.			
Prerequisities:			
Conditions for cours Completion of a certi	e completion: fied professional/training co	ourse.	
work and familiarize He confronts his own	s himself with the methodo	nowledge, develops the capabilities of scientific logies of making scientific knowledge available. other course participants, develops the abilities of	
Brief outline of the c	ourse:		
Recommended litera	ture:		
Course language:			
Notes:			
Course assessment Total number of asse	ssed students: 1		
Course assessment	abs	n	
Course assessment Total number of asse		n 0.0	
Course assessment Total number of asse	abs		
Course assessment Total number of asse	abs 100.0		

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/Course name: Citation in the International Scientific JournalCZC/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	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/ Course name: Citation in the Local Scientific Journal CDC/22 COURSE NAME: Citation in 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 a Course type: Recommended cour Per week: Per stud Course method: pre	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 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 course: 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. Šafán	ik University in Košice	
Faculty: Faculty of Seculty	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): y period:	
Number of ECTS cro	edits: 10	
Recommended semes	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Co-investigator of the	1	
to the solution of th solving the domestic to the established pro colleagues, to particip	e project objective and to project, he acquires the abi cedure, 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 uts. The PhD student gains valuable experience
Brief outline of the c	ourse:	
Recommended litera	ture:	
Course language:		
Notes:		
Course assessment Total number of asses	used students: 59	
abs n		
	100.0	0.0
Provides:		
Provides:		
Date of last modifica	tion: 08.11.2022	

University: P. J. Šafárik University in Košice			
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ SMPR/04	Course name: Co-worker	of an International Project	
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: 15		
Recommended seme	ster/trimester of the cour	se:	
Course level: III.			
Prerequisities:			
Conditions for cours Membership in the re	e completion: search team of an internati	onal project.	
The PhD student der task, adhere to the tin experience from the creation of measurab	nonstrates the ability to we me schedule and fulfill the implementation of an inte le outputs, grant funding of	a within a team of international project solvers. brk in a team, take responsibility for the assigned project outputs. The PhD student gains personal ernational project, participation in its key stages, Science.	
Brief outline of the c	ourse:		
Recommended litera	ture:		
Course language:			
Notes:			
Course assessment Total number of asses	ssed students: 44		
	abs	n	
	100.0	0.0	
Provides:			
Date of last modifica	tion: 08.11.2022		
Approved: doc. RND	r. Miroslava Martinková, F	PhD., 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: 43

Ν	Р
0.0	100.0
Provides: RNDr. Slávka Hamuľaková, PhD., uni	verzitná 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		0.0
Provides:		
Provides: Date of last modifica	ntion: 08.11.2022	

	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: 27	
N	Р
0.0	100.0
Provides: doc. RNDr. Mária Vilková, PhD.	•
Date of last modification: 28.01.2022	
Approved: doc. RNDr. Miroslava Martinková, P	hD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ ZC/22	Course name: Internation	al Journal
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: 8	
Recommended seme	ster/trimester of the cours	se:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	e completion: in a foreign journal as an au	uthor/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 scier 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 rrect 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 andards 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 Total number of asse	ssed students: 4	1
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	
		hD., univerzitná profesorka

University: P. J. Šafárik University in Koši	ce
Faculty: Faculty of Science	
Course ID: ÚCHV/ ZSP1/22Course name: Intern	national Study Stay less than 30 Days
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:	
Conditions for course completion: Completion of a foreign study stay lasting l	less than 30 days.
problems and work critically with sources while being able to generate new knowledg in more than one language. He acts as a resp in a group with the aim of pushing the bound	D student demonstrates the ability to reflect on research at an expert level and in an interdisciplinary context, ge. He is able to actively communicate at an expert level ponsible independent scientist, works independently and daries of knowledge and transferring them to other areas blic. 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:	
Date of last modification: 08.11.2022	
Approved: doc. RNDr. Miroslava Martinko	ová, PhD., univerzitná profesorka

	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 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 Completion of a fore	se completion: ign study stay lasting more t	than 30 days.
By completing the s	tudy stay the DhD student	
problems and work of while being able to g 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	t 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 He can competently argue and explain his ideas.
problems and work of while being able to g 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 ce and to the wider public. H	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
problems and work of while being able to g in more than one lang in a group with the air of research, to practio	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. He course:	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
problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. He course:	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
problems and work of while being able to ge in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. He course:	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
problems and work of while being able to ge in more than one lang in a group with the air of research, to practic Brief outline of the of Recommended litera Course language:	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. F course:	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
problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. F course:	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
problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. F course: nture: ssed students: 7	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 He can competently argue and explain his ideas.
problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. F course: nture: ssed students: 7 abs	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 le can competently argue and explain his ideas.
problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	critically with sources at an enerate new knowledge. He guage. He acts as a responsib m of pushing the boundaries ce and to the wider public. F course: nture: ssed students: 7 abs 100.0	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 le can competently argue and explain his ideas.

	rik University in Košice	
Faculty: Faculty of S	science	
Course ID: ÚCHV/ MKZ/22	Course name: Internation	al conference abroad
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	ester/trimester of the cour	se:
Course level: III.		
Prerequisities:		
Conditions for course Active participation	se completion: in an international conferen	ce abroad.
demonstrates a high research methodolog	level of ability to identify, by in his scientific field. He	scientific conference abroad, the phD student evaluate, and apply correct scientific methods or e demonstrates the ability to reflect on a specific
competence to use e	xisting theories and concept owledge and communicate	ches and applying them critically. Demonstrates ots in an innovative way, as well as generate new research results to a wider audience by adequate
competence to use en original scientific kn	xisting theories and concep owledge and communicate foreign language.	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a	xisting theories and concept owledge and communicate foreign language.	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a Brief outline of the c	xisting theories and concept owledge and communicate foreign language.	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera	xisting theories and concep owledge and communicate foreign language.	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera Course language:	xisting theories and concept owledge and communicate foreign language. course: ature:	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera Course language: Notes: Course assessment	xisting theories and concept owledge and communicate foreign language. course: ature:	ots in an innovative way, as well as generate new
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera Course language: Notes: Course assessment	xisting theories and concep owledge and communicate foreign language. course: ature: ssed students: 30	ots in an innovative way, as well as generate new research results to a wider audience by adequate
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera Course language: Notes: Course assessment	xisting theories and concep owledge and communicate foreign language. course: ature: ssed students: 30 abs	n
competence to use en original scientific kn means and through a Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse	xisting theories and concep owledge and communicate foreign language. course: ature: ssed students: 30 abs 100.0	n

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 cour 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.	
degree of ability to id in his scientific field using the latest approx theories and concepts	entify, evaluate, and apply I. He demonstrates the ab aches and applying them cr is in an innovative way, as w	The conference, the PhD student demonstrates a high correct scientific methods or research methodology ility to reflect on a specific scientific problem by ritically. Demonstrates competence in using existing yell as generating new original scientific knowledge r audience using adequate means and through the
Brief outline of the c	ourse:	
Recommended litera	ature:	
Course language:		
Notes:		
Course assessment Total number of asse	ssed students: 134	
	abs	n
	100.0	0.0
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	erence with Foreign Participation
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 Active participation i	e completion: n a national conference with	h foreign participation.
ability to identify, ev scientific field. He de	aluate, and apply correct so	ce, the PhD student demonstrates a high degree of cientific methods or research methodology in his
and concepts in an i	l applying them critically. I nnovative way, as well as	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
and concepts in an i communicate researc	applying them critically. If nnovative way, as well as th results to a wider audier	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate researc foreign language.	applying them critically. If nnovative way, as well as the results to a wider audier course:	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate research foreign language. Brief outline of the c	applying them critically. If nnovative way, as well as the results to a wider audier course:	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera	applying them critically. If nnovative way, as well as the results to a wider audier course:	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera Course language:	applying them critically. E nnovative way, as well as th results to a wider audier course:	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera Course language: Notes: Course assessment	applying them critically. E nnovative way, as well as th results to a wider audier course:	Demonstrates competence to use existing theories generate new original scientific knowledge and
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	applying them critically. E nnovative way, as well as th results to a wider audier ourse: nture: ssed students: 41	Demonstrates competence to use existing theories generate new original scientific knowledge and nee by adequate means and through Slovak or a
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	applying them critically. E nnovative way, as well as th results to a wider audier course: nture: ssed students: 41 abs	Demonstrates competence to use existing theories generate new original scientific knowledge and nee by adequate means and through Slovak or a
and concepts in an i communicate research foreign language. Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	applying them critically. E nnovative way, as well as th results to a wider audier course: nture: ssed students: 41 abs 100.0	Demonstrates competence to use existing theories generate new original scientific knowledge and nee by adequate means and through Slovak or a

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

University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science		
Course ID: ÚCHV/ Course name: Member of the internal project team SIG/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: 3		
Recommended semester/trimester of the co	ourse:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Co-worker of project supported by internal g	rant schemes (VVGS)	
Learning outcomes: The PhD student demonstrates the ability to participate in teamwork, to bring his own contribution to the solution of the project objective within the internal grant system at UPJŠ. By solving the internal VVGS grant, he acquires the ability to implement the project plan according to the established procedure, adhere to the project schedule, coordinate his own activities with colleagues, and participate in the creation of outputs. The PhD student gains valuable experience from the practical course of the grant project.		
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 23		
abs n		
100.0	0.0	
Provides:		
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, PhD., univerzitná profesorka		

	COURSE INFOR		
University: P. J. Šafái	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ POVK/22	Course ID: ÚCHV/ Course name: Membership in a Conference organizing Committee POVK/22		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:		
Number of ECTS cro	edits: 3		
Recommended seme	ster/trimester of the cours	Se:	
Course level: III.			
Prerequisities:			
Conditions for cours Work in the organizin	e completion: ng committee of the confere	ence	
abilities and competent to manage the implement in writing using variou	nces to organize a scientific nentation in terms of time an us technical means as neede	e conference, the PhD student demonstrates the or professional event independently or in a team, d content, to communicate effectively verbally and d, including in a foreign language at a professional prrectly recommend solutions or make independent	
Brief outline of the c	ourse:		
Recommended litera	ture:		
Course language:			
Notes:			
Course assessment Total number of asses	ssed students: 6		
	abs n		
	100.0	0.0	
Provides:			
Date of last modifica	tion: 08.11.2022		

Faculty: Faculty of Sci	ence	
Course ID: ÚCHV/ C MOZ/04	Course name: Molecular devices	
Course type, scope and Course type: Lecture Recommended cours Per week: 2 / 2 Per st Course method: prese	/ Practice e-load (hours): udy period: 28 / 28	
Number of ECTS cred	lits: 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

University: P. J. Šafá	rik University in Košic	e	
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ MONB/22	/ Course name: Monograph		
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: 20		
Recommended seme	ster/trimester of the c	ourse:	
Course level: III.			
Prerequisities:			
Conditions for cours Co-author of the mor	1		
evaluate, and apply c to reflect on a scient demonstrates the con as to generate new o qualitative and ethic	orrect scientific method ific problem by using to npetence to use existin riginal scientific know al standards of the fie	dent demonstrates a high level of ability to identify, ds or research methodology. It demonstrates the ability the latest approaches and applying them critically. He g theories and concepts in an innovative way, as well ledge, which he can publish according to the highest eld. The doctoral student demonstrates the ability to 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: 0		
	abs	n	
	0.0	0.0	
Provides:			
Date of last modifica	tion: 08.11.2022		

Faculty: Faculty of S	University: P. J. Šafárik University in Košice		
Faculty: Faculty of Science			
Course ID: ÚCHV/ Course name: Monograph in a renowned publishing house MONA/22			
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 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	
in an innovative way publish according to demonstrates the abil own ideas. Brief outline of the c Recommended litera Course language:	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:	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: 21	
Ν	Р
0.0	100.0
Provides: doc. RNDr. Mariana Budovská, PhD.	
Date of last modification: 17.11.2021	
Approved: doc. RNDr. Miroslava Martinková, PhI	D., univerzitná profesorka

	rik University in Košice	
Faculty: Faculty of S	cience	
ourse ID: ÚCHV/ RZ/22Course name: Non-Reviewed 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 qualitation	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 ID: ÚCHV/ Course name: Patents, Inventions, Software VS/04		
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 cour	se:	
Course level: III.			
Prerequisities:			
Conditions for cours Patent filed, invention	e completion: 1, software product created	I.	
	onstrates the ability to creative interdisciplinary scale or in	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:		_1	
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/ Course name: Pedagogy for University Teachers PgVU/17 Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s	
Course ID: KPE/ PgVU/17 Course name: Pedagogy for University Teachers Course type, scope and the method: Course type: Lecture Recommended course-load (hours):	
PgVU/17 Course type, scope and the method: Course type: Lecture Recommended course-load (hours):	
Course type: Lecture Recommended course-load (hours):	
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 Stud 	y Regulations.
Learning outcomes: After completing the course, the student will acquire knowledge, skills, and cor- be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the university-level professional subjects. Identify and specify educational proced teacher aimed at effective teaching management, pedagogical diagnostics, learning outcomes. Recognize different approaches to pedagogical evaluation improving the quality of the educational process at the university level. Skills Implement effective educational methods and techniques into the teaching of pri- tailored to the needs of university students. Conduct pedagogical diagnostic progress, and apply appropriate evaluation methods to improve learning outcomer reflect on one's own teaching process, identify areas for improvement, and en- of professional subjects, including the rationalization of the time and content st Present specific proposals for improving the teaching process, including the user and innovative pedagogical approaches. Competencies Confidently and effectively manage the teaching of university subjects, appeding outcomes of students to improve tear achieve a higher quality of the educational process. Apply innovative solution optimize the teaching process, aiming to increase the engagement and success of Brief outline of the course:	eaching process of ures of a university and assessment of and their impact or ofessional subjects cs, assess students omes. Analyze and hance the teaching ructure of teaching of new technologies plying educationa lect on one's owr ching methods and s to streamline and

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	52	
abs	n	neabs
98.03	0.66	1.32
Provides: doc. PaedDr. Renáta Oroso	ová, PhD.	
Date of last modification: 14.09.202	24	
Approved: doc. RNDr. Miroslava M	artinková, PhD., univerzitná	profesorka

University: P. J. Safá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ POPV/22	Course name: Popularisa	tion 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 cour	se:
Course level: III.		
Prerequisities:		
Conditions for cours Active involvement i	e completion: n the popularization of scie	nce.
communication, iden professional knowled	tify the target group and a	lay public, use interactive methods of scientific dapt 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:		
Notes: Course assessment Total number of asse	ssed students: 37	
Course assessment	ssed students: 37 abs	n
Course assessment Total number of asse		n 0.0
Course assessment Total number of asse	abs	
Course assessment Total number of asse	abs 100.0	

	COURSE INFORMATION LETTER
University: P. J. Šafá	árik 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: pr	re / Practice irse-load (hours): r study period: 28 / 28
Number of ECTS cr	redits: 8
Recommended seme	ester/trimester of the course:
Course level: III.	
Prerequisities:	
In order to pass this requirements: Studen practise part of the c percent of the total r on the basis of the m	se completion: In consist of written and/or oral examination as the examiner may determine. It is course, each student must complete ALL of the following compulsory ints may only miss 1 practise session. Students must actively work during a course 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 park of 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 medium understand the scope and assess their deg acquired in the exerce	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 tise will allow them to performe the basic types of calculations using available ac, Molden, Gamess, Gaussian,) and analyze the obtained results.
	course: ent quantum mechanical models in chemistry. nitio, 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 cr	edits: 5	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Presentation at the se	-	
evaluate, and apply o	-	hD student demonstrates the ability to identify, r research methodology in his field of study. He
and applying them cr an innovative way, a	itically. Demonstrates comp s well as generating new o	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language
and applying them cr an innovative way, a	itically. Demonstrates comp s well as generating new o lequate means and through S	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ac	itically. Demonstrates comp s well as generating new o lequate means and through s ourse:	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ac Brief outline of the c	itically. Demonstrates comp s well as generating new o lequate means and through s ourse:	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ac Brief outline of the c Recommended litera	itically. Demonstrates comp s well as generating new o lequate means and through s ourse:	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ad Brief outline of the c Recommended litera Course language:	itically. Demonstrates comp s well as generating new o lequate means and through s ourse: nture:	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ad Brief outline of the c Recommended litera Course language: Notes: Course assessment	itically. Demonstrates comp s well as generating new o lequate means and through s ourse: nture:	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating
and applying them cr an innovative way, a research results by ad 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	Socientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language
and applying them cr an innovative way, a research results by ad 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	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language
and applying them cr an innovative way, a research results by ad Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses	itically. Demonstrates comp s well as generating new o lequate means and through s ourse: nture: ssed students: 9 abs 100.0	scientific problem by using the latest approaches betence in using existing theories and concepts in riginal scientific knowledge and communicating Slovak or a foreign language

U		
University: P. J. Safá	rik University in Koši	ice
Faculty: Faculty of S		
Course ID: ÚCHV/ ZRIG/22	Course name: Princi	eipal investigator of an internal grant (VVGS)
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	ester/trimester of the	course:
Course level: III.		
Prerequisities:		
Conditions for cours Principal investigator	se completion: r of an internal grant ((VVGS)
problem within the in their time schedule, the internal VVGS g established procedure	ternal grant system at to measurable outputs an grant acquires the abilitie, to be responsible for	to process a successful application for his own research UPJŠ. Acquires skills with the design of research stages and adequate distribution of funds. The very solution of hity to implement the project intention according to the or achieving the set outputs. As a responsible researcher
	ires competencies in p	project management, its administration, and presentation
Brief outline of the c		project management, its administration, and presentation
	course:	project management, its administration, and presentation
Recommended litera	course:	project management, its administration, and presentation
Recommended litera Course language:	course:	project management, its administration, and presentation
Recommended litera Course language: Notes:	ature:	project management, its administration, and presentation
Recommended litera Course language: Notes: Course assessment	ature:	n
Recommended litera Course language: Notes: Course assessment Total number of asse	ssed students: 18	
Recommended litera Course language: Notes: Course assessment Total number of asse	ssed students: 18 abs	n
	ssed students: 18 abs 100.0	n

	COURSE INFORMATION LETTER
University: P. J. Šafá	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: dis	re irse-load (hours): dy period: 28s
Number of ECTS cr	redits: 5
Recommended seme	ester/trimester of the course:
Course level: III.	
Prerequisities:	
Learning outcomes: After completing the summarize and explae motivation psychology health psychology. T for the professional, to create and implement and develop the con- the application of p	tiput, 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 the teaching of a professional topic with applied psychological knowledge mpetences to create and implement teaching of a professional topic with sychological knowledge, as well as to evaluate their performance and the classmates in the form of constructive feedback.
The content of the corpsychology 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 ess with a focus on: teachers in relation to themselves (cognitive, personal, cies 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. Erv. H. Ketteridge S. & Marchall S. (2008). A handbook for teaching and learning in high

Fry, H., Ketteridge, S., & Marshall, S. (2008). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge.

Mareš, J.: Pedagogická psychologie. Portál, 2013.

Kniha psychologie. Universum, 2014

Čáp, J., Mareš, J.: Psychologie pro učitele. Praha: Portál 2007.

Vágnerová, M.: Školní poradenská psychológie pro pedagogy. Praha: Karolínum 2005.

Cuevas, J. A., Childers, G., & Dawson, B. L. (2023). A rationale for promoting cognitive science in teacher education: Deconstructing prevailing learning myths and advancing research-based practices. Trends in neuroscience and education, 100209.

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, Ph	ıD.	
Date of last modification: 09.12.20	024	
Approved: doc. RNDr. Miroslava I	Martinková, PhD., univerzitná	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			
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		

Foolty Foolty of	-	
Faculty: Faculty of S	cience	
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 cr	edits: 40	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	1	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
the latest approaches 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 . 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,
the latest approaches theories and concepts which he can publish PhD student demons	and applying them critically in an innovative way, as wel according to the highest q trates the ability to critically eas	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches theories and concepts which he can publish PhD student demons 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	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches 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 well according to the highest q trates the ability to critically eas	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches 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 well according to the highest q trates the ability to critically eas	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches 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 wel n according to the highest q trates the ability to critically eas course:	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches 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 wel n according to the highest q trates the ability to critically eas course:	y. He demonstrates the competence to use existing It as to generate new original scientific knowledge, qualitative and ethical standards of the field. The
the latest approaches 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 asses	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas course: nture: ssed students: 11	A. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
the latest approaches 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 asses	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas course: nture: ssed students: 11 abs	n
the latest approaches 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 asses	and applying them critically in an innovative way, as well in according to the highest q trates the ability to critically eas course: nture: ssed students: 11 abs 100.0	n

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 cr	edits: 20	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours 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 cour Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr	edits: 30	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted		as first or corresponding author.
demonstrates a high or research methodo	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 7. He demonstrates the competence to use existing 1 as to generate new original scientific knowledge, qualitative and ethical standards of the field. The 7 evaluate and respond to reviewers' suggestions,
theories and concepts which he can publish PhD student demons	and applying them critically in an innovative way, as wel according to the highest q trates the ability to critically eas.	A. He demonstrates the competence to use existing l 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	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas.	A. He demonstrates the competence to use existing l 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	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas.	A. He demonstrates the competence to use existing l 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 well according to the highest q trates the ability to critically eas.	A. He demonstrates the competence to use existing l 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 wel a according to the highest q trates the ability to critically eas. course:	A. He demonstrates the competence to use existing l 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 wel a according to the highest q trates the ability to critically eas. course:	A. He demonstrates the competence to use existing l 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 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. course: nture: ssed students: 17	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,
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 asses	and applying them critically in an innovative way, as well according to the highest q trates the ability to critically eas. course: nture: ssed students: 17 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 well according to the highest q trates the ability to critically eas. course: nture: ssed students: 17 abs 100.0	n

	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
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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
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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		
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 Illy. 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:		
NI-A		
Notes:		
Notes: Course assessment Total number of asse	ssed students: 1	
Course assessment	ssed students: 1 abs	n
Course assessment Total number of asse		n 0.0
Course assessment Total number of asse	abs	
Course assessment Total number of asse	abs 100.0	

n n n n n	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ Q41A/22	Course name: Q4 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: 20	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours Publication accepted	-	as first or corresponding author.
demonstrates a high		e first or corresponding author, the PhD student y, evaluate, and apply correct scientific methods
the latest approaches theories and concepts which he can publish	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically	bility to reflect on a scientific problem by using A He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
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the latest approaches theories and concepts which he can publish PhD student demons to finalize his own id	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas.	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The
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the latest approaches theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language:	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas.	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas.	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas. course: ature: ssed students: 0	bility 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,
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas. course: ature: ssed students: 0 abs	hibility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest of trates the ability to critically eas. course: ature: ssed students: 0 abs 0.0	hibility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n

E14 E 14 00	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ RZ/22	Course name: Reviewed I	nternational or Local Proceedings
Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre	rse-load (hours): ly period:	
Number of ECTS cr	edits: 5	
Recommended seme	ster/trimester of the cours	e:
Course level: III.		
Prerequisities:		
Conditions for cours A publication publish	1	gn or national proceedings as an author/co-author.
demonstrates a high	e	hal journal as an author/co-author, the PhD student y, evaluate, and apply correct scientific methods
the latest approaches theories and concepts which he can publish	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	bility to reflect on a scientific problem by using the demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
the latest approaches theories and concepts which he can publish PhD student demons	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 eas	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The
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the latest approaches 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	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 eas course:	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The
the latest approaches 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	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 eas course: ature: ssed students: 87	bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions,
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest q trates the ability to critically eas course: ature: ssed students: 87 abs	hility to reflect on a scientific problem by using A. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n
the latest approaches 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	logy. He demonstrates the a and applying them critically in an innovative way, as well h according to the highest q trates the ability to critically eas course: ature: ssed students: 87 abs 100.0	hility to reflect on a scientific problem by using A. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ SCI/22	Course name: SCI Citatio	n
Course type, scope a Course type: Recommended cour Per week: Per stud	rse-load (hours):	
Course method: pre		
Number of ECTS cr	edits: 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 source demonstrates contribution to scient	ed on the ability to formul by that generates new know the competence to comm ific knowledge, at the highe	very well-founded scientific knowledge in the 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.
Brief outline of the c	ourse:	
Recommended litera	ture:	
Course language:		
Notes:		
Course assessment Total number of asses	ssed students: 31	
	abs	n
	100.0	0.0
Provides:		
Date of last modifica	tion: 08.11.2022	
Approved: doc. RND	r. Miroslava Martinková, P	hD., univerzitná profesorka
rr		·, ·· ······ p······

University: P. J. Šafá	rik University in Košice
Faculty: Faculty of S	cience
Course ID: ÚCHV/ CHSA/04	Course name: Saccharides
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	ester/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	
	essary, online, using the MS Teams tool. The form of beginning of the semester, updated continuously.
Course assessment Total number of assessed students: 29	
Ν	Р
0.0	100.0
Provides: doc. RNDr. Miroslava Martinkov	vá, PhD., univerzitná profesorka
Date of last modification: 20.11.2021	
	ová, PhD., univerzitná profesorka

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ VPZ/22	Course name: Scientific w	vork after sending to the editorial office
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		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 well a according to the highest of	fic journal as an author/co-author, the PhD student y, evaluate, and apply correct scientific methods ibility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il 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:		
Notes:		
Course assessment Total number of asse	ssed students: 4	
	abs	n
	100.0 0.0	
	100.0	0.0
Provides:	100.0	0.0
Provides: Date of last modifica		0.0

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: 203

abs	n
100.0	0.0

Provides: doc. RNDr. Marián Kireš, PhD.

Date of last modification: 08.11.2022

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

University: P. J. Sala	uile I Inizzanzitez in IZ ažiaa	
E	rik University in Košice	
Faculty: Faculty of S		
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	nt'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 ally assess a professional problem and its proposed
solution, as well as to	-	pose another solution. He applies knowledge and
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:	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:	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: ssed 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: ssed 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 proof pedagogical sciences to h course: ature: ssed students: 6 abs 100.0	pose another solution. He applies knowledge and is own field.

COURSE INFORMATION LETTER		
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 cour	se:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Direct teaching activity 1 semester hour		
knowledge from his own field of study into right techniques and strategies of study group learning outcomes. He is capable of designing	demonstrates the ability to transfer and integrate education. He is able to select and apply the management, higher education and evaluation of and implementing part of the educational process cation and the requirements placed on the level of	
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 12		
abs	n	
100.0 0.0		
Provides:		
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, F	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: present		
Number of ECTS credits: 4		
Recommended semester/trimester of the cours	e:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Direct teaching activity 2 semester hours		
knowledge from his own field of study into right techniques and strategies of study group i 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 and implementing part of the educational process ation and the requirements placed on the level of	
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 17		
abs	n	
100.0 0.0		
Provides:		
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, P	hD., univerzitná profesorka	
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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			
knowledge from his own field of study into right techniques and strategies of study group learning outcomes. He is capable of designing a	demonstrates the ability to transfer and integrate education. He is able to select and apply the management, higher education and evaluation of and implementing part of the educational process eation and the requirements placed on the level of		
Brief outline of the course:			
Recommended literature:			
Course language:			
Notes:			
Course assessment Total number of assessed students: 5			
abs	n		
100.0	100.0 0.0		
Provides:			
Date of last modification: 08.11.2022			
Approved: doc. RNDr. Miroslava Martinková, P	PhD., univerzitná profesorka		
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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		
Number of ECTS credits: 8		
Recommended semester/trimester of the cours	o:	
Course level: III.		
Prerequisities:		
Conditions for course completion: Direct teaching activity 4 semester hours		
knowledge from his own field of study into right techniques and strategies of study group n 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	
Brief outline of the course:		
Recommended literature:		
Course language:		
Notes:		
Course assessment Total number of assessed students: 12		
abs	n	
100.0 0.0		
Provides:		
Date of last modification: 08.11.2022		
Approved: doc. RNDr. Miroslava Martinková, P	hD., univerzitná profesorka	
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University: P. J. Šafán	rik University in Košice		
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ KZP/22	Course name: Thesis consultant		
Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre	rse-load (hours): y period:		
Number of ECTS cro	edits: 4		
Recommended seme	ster/trimester of the co	ourse:	
Course level: III.			
Prerequisities:			
Conditions for cours Final thesis consultan			
knowledge in the field Demonstrates the abi well as to evaluate it	d of study, as well as kr lity to critically assess	tudent demonstrates broad and scientifically based nowledge of a wide range of methods and approaches. a professional problem and its proposed solution, as nother solution. He applies knowledge and skills from field.	
Brief outline of the c	ourse:		
Recommended litera	ture:		
Course language:			
Notes:			
Course assessment Total number of asses	ssed students: 46		
	abs	n	
	100.0 0.0		
Provides:			
Date of last modifica	tion: 08.11.2022		
		zá, PhD., univerzitná profesorka	

University: P. J. Šafá	rik University in Koš	lice	
Faculty: Faculty of S	cience		
Course ID: ÚCHV/ VZP/22	// Course name: Thesis supervising		
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: 8		
Recommended seme	ster/trimester of the	e course:	
Course level: III.			
Prerequisities:			
Conditions for cours Supervisor of the fina	-		
knowledge in the fiel Demonstrates the abi	d of study, as well as lity to critically asse 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 n 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 modifica	tion: 08.11.2022		
		ková, PhD., univerzitná profesorka	

University: P. J. Šafá	rik University in Košice	
Faculty: Faculty of S	cience	
Course ID: ÚCHV/ PDS/22	Durse ID: ÚCHV/ Course name: Writing Dissertation 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	ster/trimester of the cours	e:
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 modifica	tion: 08.11.2022	
Approved: doc. RNE	r. Miroslava Martinková, P	hD., univerzitná profesorka