

Course descriptions

TABLE OF CONTENTS

1. N-DSSZ-412/22 Abstract of a contribution from a domestic or an international conference (originally AFG, AFK, AFH, AFL).....	3
2. N-DSSZ-505/22 Bachelor's thesis reviewer.....	4
3. N-DSSZ-504/22 Bachelor's thesis supervisor.....	5
4. N-DSSZ-414/22 Completing an long-term ERASMUS+ internship (minimum 60 days).....	6
5. N-DSSZ-415/22 Completion of SAIA/NŠP internship program or other equivalent (minimum 30 days).....	7
6. N-DSSZ-416/22 Completion of a short-term foreign internship (15-30 days, and related to the topic of the PhD thesis).....	8
7. PriF-DSSZ-001/22 Dissertation 1.....	9
8. PriF-DSSZ-002/22 Dissertation 2.....	11
9. PriF-DSSZ-003/22 Dissertation 3.....	13
10. PriF-DSSZ-004/22 Dissertation 4.....	15
11. PriF-DSSZ-005/22 Dissertation 5.....	17
12. PriF-DSSZ-006/22 Dissertation 6.....	19
13. PriF-DSSZ-007/22 Dissertation 7.....	20
14. PriF-DSSZ-024/22 Dissertation 8.....	21
15. PriF-DSSZ-025/22 Dissertation 9.....	22
16. N-DCJC-400/22 Dissertation exam (state exam).....	23
17. N-DSSZ-303/22 Dissertation's Thesis Defence (state exam).....	25
18. N-DSSZ-400/22 Grant CU or Grant SAS or equivalent grant.....	26
19. N-DSSZ-413/22 Intellectual Property Rights Document (originally AGJ).....	27
20. N-DCJC-002/22 Metrology and spectroscopy of ionizing radiation.....	28
21. N-DCJC-001/22 Nuclear chemistry.....	30
22. N-DCJC-013/22 Nuclear methods in research and practice.....	32
23. N-DSSZ-508/22 Other activities.....	34
24. N-DSSZ-501/22 P1 Pedagogical output as a whole (originally ACA, ACB, BCI, BCB).....	35
25. N-DSSZ-503/22 P2 Pedagogical output as a part (originally BCK).....	36
26. N-DSSZ-502/22 P2 Pedagogical output as part (originally ACC, ACD).....	37
27. N-DSSZ-507/22 Pedagogical activity (4 hours/WS and 4 hours/SS) or alternative pedagogical work.....	38
28. N-DSSZ-026/22 Professional English 1.....	39
29. N-DSSZ-027/22 Professional English 2.....	41
30. N-DCJC-010/22 Radiation chemistry and dosimetry.....	43
31. N-DCJC-011/22 Radioecology.....	45
32. N-DSSZ-500/22 Selected topics from university pedagogy for non-teachers.....	47
33. N-DCJC-012/22 Separation and determination of radioactive substances.....	48
34. N-DSSZ-022/22 Slovak for Foreign Doctoral Students 1.....	50
35. N-DSSZ-023/22 Slovak for Foreign Doctoral Students 2.....	52
36. N-DSSZ-024/22 Slovak for Foreign Doctoral Students 3.....	54
37. N-DSSZ-028/22 Slovak for Foreign Doctoral Students 4.....	56
38. N-DSSZ-506/22 Supervisor of the SSC contribution.....	58
39. N-DSSZ-404/22 V1 Scientific output as a whole - ESB monograph (originally AAA, ABA), individual authorship less than 3 AH.....	59
40. N-DSSZ-401/22 V1 Scientific output as a whole – ESB monograph (originally AAA, ABA), individual authorship share ≥ 3 AH.....	60

41. N-DSSZ-405/22 V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship less than 3 AH.....	61
42. N-DSSZ-402/22 V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship share ≥ 3 AH.....	62
43. N-DSSZ-411/22 V2 Scientific output as part of ESB, collection - contribution in peer reviewed scientific collection, monograph (originally AEC, AFA, AFC, AED).....	63
44. N-DSSZ-406/22 V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship less than 3 AH.....	64
45. N-DSSZ-403/22 V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship ≥ 3 AH.....	65
46. N-DSSZ-410/22 V3 Scientific output in a journal outside the index databases (originally ADE, ADF).....	66
47. N-DSSZ-407/22 V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/ Q1 – Q2 (originally ADC, ADD, ADM, ADN), first or corresponding author.....	67
48. N-DSSZ-408/22 V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/ Q3- Q4 (originally ADC, ADD, ADM, ADN), first or corresponding author.....	68
49. N-DSSZ-409/22 V3 Scientific output in the journal registered by CCC, WOS, SCOPUS - JCR/ Q1 – Q2 – Q3 - Q4 (originally ADC, ADD, ADM, ADN), co-author.....	69

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-412/22			Course title: Abstract of a contribution from a domestic or an international conference (originally AFG, AFK, AFH, AFL)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 4							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 611							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-505/22				Course title: Bachelor's thesis reviewer			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 3							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 274							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-504/22				Course title: Bachelor's thesis supervisor			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 8							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 86							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-414/22				Course title: Completing an long-term ERASMUS+ internship (minimum 60 days)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 32							
A	ABS	B	C	D	E	FX	NEABS
0,0	96,88	0,0	0,0	0,0	0,0	0,0	3,13
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-415/22			Course title: Completion of SAIA/NŠP internship program or other equivalent (minimum 30 days)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 30							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-416/22			Course title: Completion of a short-term foreign internship (15-30 days, and related to the topic of the PhD thesis)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 7							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 62							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-001/22	Course title: Dissertation 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 12.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-002/22	Course title: Dissertation 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Jazyk, ktorého znalosť je potrebná na absolvovanie predmetu: Slovenský v kombinácii s anglickým (študijná literatúra v anglickom jazyku)	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 13.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-003/22	Course title: Dissertation 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 7	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 18.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-004/22	Course title: Dissertation 4
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 4.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 6	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 10.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-005/22	Course title: Dissertation 5
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 5.	
Educational level: III.	
Prerequisites:	
Course requirements: v	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	

Past grade distribution	
Total number of evaluated students: 6	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 06.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-006/22	Course title: Dissertation 6
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 6.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 6	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-007/22	Course title: Dissertation 7
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 7.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-024/22	Course title: Dissertation 8
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 8.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/PriF-DSSZ-025/22	Course title: Dissertation 9
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 9.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by:	

STATE EXAM DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-400/22	Course title: Dissertation exam
Number of credits: 15	
Educational level: III.	
Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava, as well as submission of the written part of the dissertation thesis within the set deadline. The subjects of the state examination include a discussion about the written work of the dissertation examination (prepared by the doctoral student), as well as other subjects of the oral examination (ad hoc) approved by the Dean. Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: The objective of the course is to gain basic habits and cultural-ethical aspects of working with scientific literature, evaluation, and systemization of the studied knowledge. The doctoral student needs to successfully pass the dissertation examination according to the act on Universities and Study Regulations of the Faculty of Natural Sciences of Comenius University in Bratislava.	
Class syllabus: Brief outline of the course: Based on the description of the starting points, principles, and conclusions from the published results of the studied issues, the aim is to teach the doctoral student how to process critical research. A further objective is to understand the principles of scientific work and its legal, physical, and social attributes. The main output is the elaboration of the written work for the dissertation examination and its successful completion in accordance with the Study Regulations of the Faculty of Natural Sciences UK. The form and content of the work is regulated by article 34, paragraph 4 of the Study Regulations of the Faculty of Natural Sciences UK. The dissertation examination consists of a part consisting of a discussion of the written work for the dissertation examination, as well as a part in which the doctoral student needs to demonstrate theoretical knowledge according to the focus of the dissertation topic. The composition of the Examination Committee, the determination of the Opponent (expert examiner) and the general course of the dissertation examination are governed by the current Study Regulations of the Faculty of Natural Sciences UK.	
State exam syllabus:	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course:	

Required language for successful course completion: Slovak language in combination with English (study literature in English)
Last change: 19.10.2022
Approved by:

STATE EXAM DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DSSZ-303/22	Course title: Dissertation's Thesis Defence
Number of credits: 30	
Educational level: III.	
Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava upon submission of the written part of the dissertation thesis (as final work). Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: The aim of the course is to capitalise on theoretical, methodological and applied knowledge of doctoral studies in the elaboration and subsequent defence of the dissertation thesis, and thus the successful completion of doctoral studies.	
Class syllabus: Brief outline of the course: The student's dissertation thesis will demonstrate his/her ability and readiness for independent scientific and creative activities in the area of research or development or for independent theoretical and creative artistic creativity. It should be characterised by a high degree of analysis and synthesis of knowledge, as well as a sufficient overview of existing literature. The work must be original and created by the author in compliance with the rules of working with information sources. The academic work must not appear to be plagiarised, nor infringe the copyrights of other authors. The author is required to thoroughly cite the information sources used, list the specific results of other authors or team of authors by citing the source, accurately describe the methods and working procedures of other authors or teams of authors, and document the laboratory results and field research of other authors or teams of authors. Style of citation is governed by the practice in the given scientific field, respecting the relevant norms and standards.	
State exam syllabus:	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Last change: 24.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-400/22				Course title: Grant CU or Grant SAS or equivalent grant			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 12							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 174							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-413/22				Course title: Intellectual Property Rights Document (originally AGJ)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 10							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-002/22	Course title: Metrology and spectroscopy of ionizing radiation
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of final work with discussion	
Learning outcomes: The graduate of the course will gain knowledge and skills related to the appropriate selection of detection equipment depending on the origin of the sample and the type of measured radiation. At the same time, will be able to handle basic settings related to measurement parameters and evaluation of measured data.	
Class syllabus: Characteristics of individual types of ionizing radiation in terms of their detection. Detector properties and detection statistics. Basic distribution distributions and statistical criteria. Uncertainties. SI units, uniformity and accuracy of measurements, error vs. uncertainty. Gas filled detectors. Scintillation spectrometry. Semiconductor detectors. Preparation of sources for measuring emitted radiation. Evaluation, processing, and interpretation of results.	
Recommended literature: •G. F. Knoll: Radiation detection and measurement, Wiley, USA, 2010. •Glenn F. Knoll: Radiation Detection and Measurement (4th Edition), John Wiley & Sons, Inc., 2010, ISBN: 978-0-470-13148-0. •Michael F. L'Annunziata: Handbook of Radioactivity Analysis (3rd Edition), Academic Press, 2012, ISBN: 9780123848734.	
Languages necessary to complete the course: English	
Notes:	

Past grade distribution	
Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Ol'ga Rosskopfová, PhD., RNDr. Matej Krivošík, PhD.	
Last change: 19.09.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-001/22	Course title: Nuclear chemistry
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of the final work with discussion	
Learning outcomes: Students will understand the properties of the atomic nucleus, the laws of radioactive transformations, nuclear reactions, the principles of interaction of radiation with the environment and its detection	
Class syllabus: Atomic nucleus. Radioactive transformation. Nuclear reactions. Interaction of ionizing radiation with the materials. Natural and anthropogenic sources of ionizing radiation. Detection of ionizing radiation. Nuclear energy. Chemistry of radioactive elements. Radioisotope production and synthesis of isotopically modified compounds. Applications of ionizing radiation and radionuclides.	
Recommended literature: •Choppin, G. R. – Liljenzin, J. O. – Rydberg, J.: Radiochemistry and Nuclear Chemistry. Third Edition. Butterworth-Heinemann, Woburn. 2001, 709 s. ISBN 0-7506-7463-6. •József Kónya, Noémi M. Nagy (2012). Nuclear and Radiochemistry. ELSEVIER. ISBN 978-0-12-391430-9. DOI https://doi.org/10.1016/C2011-0-06943-0	
Languages necessary to complete the course: English	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Michal Galamboš, PhD., doc. RNDr. Eva Viglašová, PhD.
Last change: 19.09.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-013/22	Course title: Nuclear methods in research and practice
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of the final work with discussion	
Learning outcomes: By completing the course the student will gain knowledge of the most used nuclear methods, based on which he will be able to choose a specific method in solving a practical task in research or practice.	
Class syllabus: Accelerators. Neutron sources and nuclear reactors. Analytical applications of nuclear reactions. Activation analysis. Particle-induced X-ray emission. Neutrons and structural analysis. Spectral research methods and positron annihilation. Dating. Radioisotopes in research. Methods of mass spectrometry in nuclear research. Nuclear methods in medicine. Radiography.	
Recommended literature: •H.R. Verma: Atomic and Nuclear Analytical Methods XRF, Mössbauer, XPS, NAA and Ion-Beam Spectroscopic Techniques, Springer: Berlin, Heidelberg, New York, 2007. •Analytical applications of nuclear techniques, IAEA, 2004, https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1181_web.pdf	
Languages necessary to complete the course: English	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0

Lecturers: RNDr. Ondrej Šauša, CSc.
Last change: 19.09.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-508/22				Course title: Other activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 1							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 475							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-501/22				Course title: P1 Pedagogical output as a whole (originally ACA, ACB, BCI, BCB)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 8							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-503/22				Course title: P2 Pedagogical output as a part (originally BCK)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 10							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-502/22				Course title: P2 Pedagogical output as part (originally ACC, ACD)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 15							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-507/22				Course title: Pedagogical activity (4 hours/WS and 4 hours/SS) or alternative pedagogical work			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 2							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 497							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-026/22	Course title: Professional English 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1., 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Each course participant is required to achieve proficient knowledge and usage of the English grammar, professional vocabulary, reading and listening comprehension, writing professional texts and oral presentations. Credits will be awarded to students who will demonstrate active participation and deliver all set tasks and assignments successfully. The course participants will be awarded a pass or a fail upon course completion.	
Learning outcomes: Upon completion of the course, PhD students will effectively use the English language for professional purposes. They will proficiently comprehend targeted written and audio texts and present their viewpoints in required forms.	
Class syllabus: Theoretical and practical skills in professional written communication include appropriate structure of formal written texts (emails, application forms, personal statements, cover letters, abstracts, scientific articles, paraphrasing, using citations, citing sources, etc.) The course also focuses on theoretical explanation of correct delivery of oral texts, professional presentations and discussions. The course primary target is to facilitate PhD students with proficient usage of all the aspects of written and oral communication in various settings.	
Recommended literature: Armer, T.: Cambridge English for Scientists CD ROM Writing Professional English Team of authors: Test your Listening Skills: A Handbook for Science Doctoral students Team of authors: Test your Reading Skills: A Handbook for Science Doctoral students	
Languages necessary to complete the course: English	
Notes:	

Past grade distribution							
Total number of evaluated students: 180							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Aneta Barnes, RNDr. Tatiana Slov�kov�, PhD.							
Last change: 03.10.2022							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-027/22	Course title: Professional English 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Each course participant is required to achieve proficient knowledge and usage of the English grammar, professional vocabulary, reading and listening comprehension, writing professional texts and oral presentations. Credits will be awarded to students who will demonstrate active participation during seminars and deliver all prior set tasks and assignments successfully. The course participants will be awarded a pass or a fail upon course completion	
Learning outcomes: Doctoral students who successfully pass the examination in Professional English 2 will be enabled to use the English language for specific purposes in all its forms effectively and sufficiently. They will thoroughly comprehend professional texts in written and/or audio form, acquire professional vocabulary and actively participate in various oral communication settings.	
Class syllabus: Theoretical and practical skills in professional writing communication in the English language as a follow up to prior gained knowledge in the previous semester encompass writing professional résumés, summaries, lay summaries, responses to job interview questions, professional CVs, comparing and contrasting in scientific articles, etc. Professional oral communication focusses on research-based scientific presentations and effectively led discussions.	
Recommended literature: Armer, T.: Cambridge English for Scientists CD ROM Writing Professional English Team of authors: Test your Listening Skills: A Handbook for Science Doctoral students Team of authors: Test your Reading Skills: A Handbook for Science Doctoral students	
Languages necessary to complete the course: English	
Notes: B1 level in English is required in order to pass this course. Seminars are held in summer semester. Number of students in one course is limited to twenty.	

Students can choose from four offered time slots.	
Past grade distribution	
Total number of evaluated students: 88	
ABS	NEABS
100,0	0,0
Lecturers: Mgr. Aneta Barnes	
Last change: 03.10.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-010/22	Course title: Radiation chemistry and dosimetry
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of the final work with discussion	
Learning outcomes: The result of successful course completion is the basis of theoretical and applied knowledge that is essential for a nuclear chemist. Upon successful completion of this course, students will be able to orient themselves in a wide range of problems of contemporary radiation chemistry.	
Class syllabus: Quantities and units in radiation chemistry. Types and sources of ionizing radiation. Ionizing radiation dosimetry. Interactions of ionizing radiation with matter. Radiochemical processes. Primary intermediate products of radiolysis and their reactions.	
Recommended literature: •Radiation Chemistry. Principles and Applications. Farhatzis and M.A. Rodgers (Eds.). VCH Publishers. New York, N.Y. xii + 641 p. 1987. ISBN 0-89573-127-4. •Nikjoo H., Uehara S., Emfietzoglou D. Interaction of Radiation with Matter. Boca Raton – London – New York, CRC Press, 2012. xv+348 pp. ISBN: 978-1-4397-5357-3. •Trends in Radiation Chemistry. Wishart J. F. and Rao B. S. M. (Eds.). New Jersey: World Scientific. 2010. ISBN: 978-981-4282-07-9. •	
Languages necessary to complete the course: English	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Michal Galamboš, PhD., RNDr. Martin Daňo, PhD.
Last change: 19.09.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-011/22	Course title: Radioecology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of the final work with discussion	
Learning outcomes: The student will gain knowledge about the origin and sources of ecologically important radionuclides, which are found in various components of the environment. Migration of these radionuclides between the individual components, including an overview of radionuclide propagation models and estimation of their doses, as well as their elimination from the environment. General view of the radiation exposure of the population from primordial radionuclides to operation and events at NPP facilities. The output is also a basic overview of the minimum legal literacy in the peaceful use of nuclear energy.	
Class syllabus: Ecologically important radionuclides and their chemistry. Sampling of environmental components. Distribution and transfer of radioactive substances in the environment. Models of radionuclide propagation in the environment and models for environmental dose estimation (EMRAS, ERICA, ..). Radiation effects and dose loads of the population. Nuclear energy industry and environment. Events at nuclear installations. Radiation accidents, nuclear bombing, and nuclear weapons tests. Protection against ionizing radiation.	
Recommended literature: • Sparks, L. D., Environmental Soil Chemistry, ACADEMIC PRESS, Delaware, 2003, ISBN: 0-12-656446-9. • Holm, E. Radioecology. LUND UNIVERSITY, Lund, Sweden, 1994, ISBN: 978-981-4534-28-4	
Languages necessary to complete the course: English	
Notes:	

Past grade distribution	
Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Eva Viglašová, PhD.	
Last change: 19.09.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF.KDPP/N-DSSZ-500/22				Course title: Selected topics from university pedagogy for non-teachers			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 3							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 12							
A	ABS	B	C	D	E	FX	NEABS
0,0	91,67	0,0	0,0	0,0	0,0	0,0	8,33
Lecturers: RNDr. Jana Ciceková, PhD., doc. RNDr. PaedDr. Zuzana Haláková, PhD., PhDr. ThLic. Peter Ikhardt, PhD.							
Last change: 30.09.2022							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJCh/N-DCJC-012/22	Course title: Separation and determination of radioactive substances
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information self-study of prescribed literature, consultations with teachers and supervisor; full-time, combined method, full-time form	
Number of credits: 5	
Recommended semester: 1., 2..	
Educational level: III.	
Prerequisites:	
Course requirements: consultations and discussion of the studied literature, preparation of the final work with discussion	
Learning outcomes: Upon successful completion of this course, students will understand the properties and behavior of radionuclides, the theoretical nature, and principles of separation of radionuclides, differences in the separation methods of stable nuclides. It will have knowledge about radioanalytical methods using the separation of radionuclides emitting alpha and beta radiation, and their determination in environmental samples and radioactive wastes. They will learn the principles of good laboratory practice and management system for the testing laboratory in accordance with the requirements of ISO / IEC 17025 and SLSP	
Class syllabus: Definition, division, and selection of main separation methods. Solution chemistry and two-phase separation. Non-equilibrium thermodynamics, molecular diffusion, and convective mass transfer. Separation at general and local equilibrium. Separation cascades, countercurrent separation. Crystallization, precipitation, co-precipitation, isomorphic sacrySTALLIZATION. Isotopic, isomorphic and retention carriers. Adsorption theory. Molecular and ionic adsorption. Adsorption isotherms. Ion exchangers, description, and their distribution. Theory of extraction methods, solvent extraction of chelates and ionic associates. Classification of extraction systems and distribution of reagents. Apparatus and equipment used in extraction. Chromatographic column theory and classification of chromatographic methods. Ion exchange and extraction chromatography. Apparatus, equipment, and practical procedures for chromatographic separation of substances, selection of reagents. Thermochromatography. Membrane processes. Distillation. Electrochemical methods, electrophoretic and electrolytic separation. Carrier and non-carrier added separation methods. Chemical specialization of radionuclides.	
Recommended literature:	

•Lehto, J., Hou, X.: Chemistry and analysis of radionuclides. WILEY-VCH, 2011. ISBN: 978-3-527-32658-7. • Lehto, J., Hou, X.: Chemistry and analysis of radionuclides. WILEY-VCH, 2011. ISBN: 978-3-527-32658-7. •ISO-IEC 17025:2017	
Languages necessary to complete the course: English	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Ol'ga Rosskopfová, PhD., Ing. Darina Tóthová, CSc.	
Last change: 19.09.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-022/22	Course title: Slovak for Foreign Doctoral Students 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 3	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: The objective of the course is to acquire the basics of Slovak in a communicative way, to develop individual language skills (listening, reading, writing and speaking) based on the Common European Framework of Reference for Languages (CEFR) for the level A1, from a complete beginner level. Based on the completion of the course, the participants are able to understand and react to common situations. They are able to speak about themselves, ask for more information they need to know. Scale of assessment (preliminary/final): Credits will not be awarded to students who receive less than 60% on the final examination.	
Learning outcomes: The objective of the course is to acquire the basics of Slovak in a communicative way, to develop individual language skills (listening, reading, writing and speaking) based on the Common European Framework of Reference for Languages (CEFR) for the level A1, from a complete beginner level. Based on the completion of the course, the participants are able to understand and react to common situations. They are able to speak about themselves, ask for more information they need to know.	
Class syllabus: Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1 (Lekcia: 1-5). UK v Bratislave, 2012. Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, cvičebnica Audio program: https://uniba.sk/krizom-krazom Worksheets, website: https://slovake.eu/sk	
Recommended literature: Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1 (Lekcia: 1-5). UK v Bratislave, 2012. Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, cvičebnica Audio program: https://uniba.sk/krizom-krazom Worksheets, website: https://slovake.eu/sk	

Languages necessary to complete the course: Slovak in combination with English (the study literature is in both Slovak and English)							
Notes: It is possible to register for the course just once. Students may begin in either the Summer or Winter semester.							
Past grade distribution Total number of evaluated students: 41							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Karin Rózsová Wolfová							
Last change: 28.09.2022							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-023/22	Course title: Slovak for Foreign Doctoral Students 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 2	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: Type, extent and method of academic activities: 2 hours (at 60 min. per hour) of weekly lessons in the form of seminars. All academic activities will take place during the lessons. Number of credits: 3 credits Recommended semester/trimester of study: from 1st to 8th semester Level of study: third Subject conditions: Slovak for Foreign Doctoral Students 1 Requirements for course completion: active participation during lessons, ongoing work on the assignments. There will be a final examination at the end of the semester. Scale of assessment (preliminary/final): Credits will not be awarded to students who receive less than 60% on the final examination.	
Learning outcomes: Course Objectives: The objective of the course is to acquire the basics of Slovak in a communicative way, to develop individual language skills (listening, reading, writing and speaking) based on the Common European Framework of Reference for Languages (CEFR) for the level A1 - intended for beginner or pre-intermediate.	
Class syllabus: The lessons contain the basics of Slovak grammar which are relevant to the specifics of Slovak as a foreign language. Selected grammatical phenomena, conjugation and declination are practised. Vocabulary is focused on real-life communication needs.	
Recommended literature: Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1 Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, workbook Audio program: https://uniba.sk/krizom-krazom Worksheets are prepared by the course instructor. Portal: https://slovakie.eu/sk	
Languages necessary to complete the course: Slovak in combination with English (the study literature is in both Slovak and English)	

Notes:

It is possible to register for the course just once. Students may begin in either the Summer or Winter semester.

Past grade distribution

Total number of evaluated students: 28

A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 18.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-024/22	Course title: Slovak for Foreign Doctoral Students 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 2	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: Type, extent and method of academic activities: 2 hours (at 60 min. per hour) of weekly lessons in the form of seminars. All academic activities will take place during the lessons. Number of credits: 3 credits Recommended semester/trimester of study: from 1st to 8th semester Level of study: third Subject conditions: Slovak for Foreign Doctoral Students 2 Requirements for course completion: active participation during lessons, ongoing work on the assignments. There will be a final examination at the end of the semester. Scale of assessment (preliminary/final): Credits will not be awarded to students who receive less than 60% on the final examination.	
Learning outcomes: The objective of the course is to acquire the basics of Slovak in a communicative way, to develop individual language skills (listening, reading, writing and speaking) based on the Common European Framework of Reference for Languages (CEFR) for the levels A1 – A2. Intended for levels A1-A2, beginner to pre-intermediate	
Class syllabus: The lessons contain the basics of Slovak grammar which are relevant to the specifics of Slovak as a foreign language. Selected grammatical phenomena, conjugation and declination are practised. Vocabulary is focused on real-life communication needs.	
Recommended literature: Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1, A2 Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, workbook Audio program: https://uniba.sk/krizom-krazom Worksheets are prepared by the course instructor. Portal: https://slovakie.eu/sk	
Languages necessary to complete the course: Slovak in combination with English (the study literature is in both Slovak and English)	

Notes:

It is possible to register for the course just once. Students may begin in either the Summer or Winter semester.

Past grade distribution

Total number of evaluated students: 27

A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 18.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2023/2024	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-028/22	Course title: Slovak for Foreign Doctoral Students 4
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 2	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: Grading (Assessment/Evaluation): Active participation during lessons, ongoing work on the assignments. There will be a final examination at the end of the semester. Credits will be awarded to students who receive more than 60% on the final examination. The course participants will be awarded a pass or a fail upon course completion.	
Learning outcomes: Objectives and outcomes: The objective of the course is to acquire the basics of Slovak in a communicative way, to develop individual language skills (listening, reading, writing and speaking) based on the Common European Framework of Reference for Languages (CEFR) for the levels A1 – A2, pre-intermediate level. Based on the completion of the course, the participants are able to understand the common situations and they are able to have a discussion and comment basic daily scenarios.	
Class syllabus: Brief outline of the course: The lessons contain the basics of Slovak grammar which are relevant to the specifics of Slovak as a foreign language. Selected grammatical aspects (verb - conjugation/next conjugation classes, possessive pronouns, I like/enjoy doing something, I like something, comparison of adjectives and adverbs, conditional) are practised. Vocabulary is focused on real-life communication needs.	
Recommended literature: Recommended literature: Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1. UK v Bratislave, 2012. Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A2. (Lekcia 1-4). UK v Bratislave, 2012. Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, cvičebnica Audio program: https://uniba.sk/krizom-krazom Worksheets, website: https://slovake.eu/sk	
Languages necessary to complete the course:	

Language of instruction: Slovak in combination with English (the study literature is in Slovak).							
Notes:							
Past grade distribution Total number of evaluated students: 11							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: Mgr. Karin Rózsová Wolfová							
Last change: 18.10.2022							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-506/22				Course title: Supervisor of the SSC contribution			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 4							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 8							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-404/22			Course title: V1 Scientific output as a whole - ESB monograph (originally AAA, ABA), individual authorship less than 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-401/22			Course title: V1 Scientific output as a whole – ESB monograph (originally AAA, ABA), individual authorship share ≥ 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-405/22			Course title: V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship less than 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 3							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-402/22			Course title: V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship share ≥ 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-411/22			Course title: V2 Scientific output as part of ESB, collection - contribution in peer reviewed scientific collection, monograph (originally AEC, AFA, AFC, AED)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 6							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 333							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-406/22			Course title: V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship less than 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-403/22			Course title: V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship ≥ 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-410/22			Course title: V3 Scientific output in a journal outside the index databases (originally ADE, ADF)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 12							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 52							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-407/22			Course title: V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/Q1 – Q2 (originally ADC, ADD, ADM, ADN), first or corresponding author				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 50							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 130							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-408/22			Course title: V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/Q3- Q4 (originally ADC, ADD, ADM, ADN), first or corresponding author				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 40							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 62							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							

COURSE DESCRIPTION

Academic year: 2023/2024							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-409/22		Course title: V3 Scientific output in the journal registered by CCC, WOS, SCOPUS - JCR/Q1 – Q2 – Q3 - Q4 (originally ADC, ADD, ADM, ADN), co-author					
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 235							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by:							