

## Course descriptions

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## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-412/22			<b>Course title:</b> Abstract of a contribution from a domestic or an international conference (originally AFG, AFK, AFH, AFL)				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 4							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 1052							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-505/22				<b>Course title:</b> Bachelor's thesis reviewer			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 3							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 427							
A	ABS	B	C	D	E	FX	NEABS
0,23	99,77	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-504/22				<b>Course title:</b> Bachelor's thesis supervisor			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 8							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 133							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-414/22				<b>Course title:</b> Completing an long-term ERASMUS+ internship (minimum 60 days)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 49							
A	ABS	B	C	D	E	FX	NEABS
0,0	97,96	0,0	0,0	0,0	0,0	0,0	2,04
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-415/22				<b>Course title:</b> Completion of SAIA/NŠP internship program or other equivalent (minimum 30 days)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 58							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-416/22				<b>Course title:</b> Completion of a short-term foreign internship (15-30 days, and related to the topic of the PhD thesis)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 7							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 109							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DSSZ-303/22	<b>Course title:</b> Defence of dissertation thesis
<b>Number of credits:</b> 30	
<b>Educational level:</b> III.	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>State exam syllabus:</b>	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b> Required language for successful course completion: Slovak language in combination with English (study literature in English)	
<b>Last change:</b> 24.10.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-001/22	<b>Course title:</b> Dissertation 1
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b> Required language for successful course completion: Slovak language in combination with English (study literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 16	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> prof. RNDr. Alexander Lux, CSc.	
<b>Last change:</b> 07.11.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-002/22	<b>Course title:</b> Dissertation 2
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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. V prípade dištančnej výučby bude štruktúra a obsahová náplň predmetu zachovaná, len bude prezentovaná dištančnou formou.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b>	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 10	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> doc. Mgr. Michal Martinka, PhD.	
<b>Last change:</b> 07.11.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-003/22	<b>Course title:</b> Dissertation 3
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b> Required language for successful course completion: Slovak language in combination with English (study literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 11	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> doc. Mgr. Renáta Švubová, PhD.	
<b>Last change:</b> 07.11.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-004/22	<b>Course title:</b> Dissertation 4
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 4.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b> Required language for successful course completion: Slovak language in combination with English (study literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 7	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b> 07.11.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-005/22	<b>Course title:</b> Dissertation 5
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Type, scope and methods of instruction: No specifications concerning the degree of study (choice of methods – in class, distant learning, or a combination of both)	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 5.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b> Required language for successful course completion: Slovak language in combination with English (study literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 12	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b> 07.11.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-006/22	<b>Course title:</b> Dissertation 6
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 6.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b>	
<b>Class syllabus:</b>	
<b>Recommended literature:</b>	
<b>Languages necessary to complete the course:</b>	
<b>Notes:</b>	
<b>Past grade distribution</b>	
Total number of evaluated students: 11	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-007/22	<b>Course title:</b> Dissertation 7
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> per week:   per level/semester: <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 7.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b>	
<b>Class syllabus:</b>	
<b>Recommended literature:</b>	
<b>Languages necessary to complete the course:</b>	
<b>Notes:</b>	
<b>Past grade distribution</b>	
Total number of evaluated students: 10	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-024/22	<b>Course title:</b> Dissertation 8
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> per week:   per level/semester: <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 8.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b>	
<b>Class syllabus:</b>	
<b>Recommended literature:</b>	
<b>Languages necessary to complete the course:</b>	
<b>Notes:</b>	
<b>Past grade distribution</b>	
Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/PriF-DSSZ-025/22	<b>Course title:</b> Dissertation 9
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 9.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b>	
<b>Learning outcomes:</b>	
<b>Class syllabus:</b>	
<b>Recommended literature:</b>	
<b>Languages necessary to complete the course:</b>	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
<b>Lecturers:</b>	
<b>Last change:</b>	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## STATE EXAM DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-400/22	<b>Course title:</b> Dissertation exam
<b>Number of credits:</b> 15	
<b>Educational level:</b> III.	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>State exam syllabus:</b>	
<b>Recommended literature:</b> 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.	
<b>Languages necessary to complete the course:</b>	

Required language for successful course completion: Slovak language in combination with English (study literature in English)
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<b>Last change:</b> 19.10.2022
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<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.
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## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-400/22				<b>Course title:</b> Grant CU or Grant SAS or equivalent grant			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 12							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 275							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-413/22				<b>Course title:</b> Intellectual Property Rights Document (originally AGJ)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 10							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-508/22				<b>Course title:</b> Other activities			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 1							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 763							
A	ABS	B	C	D	E	FX	NEABS
0,13	99,87	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-501/22				<b>Course title:</b> P1 Pedagogical output as a whole (originally ACA, ACB, BCI, BCB)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-503/22				<b>Course title:</b> P2 Pedagogical output as a part (originally BCK)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 10							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-502/22				<b>Course title:</b> P2 Pedagogical output as part (originally ACC, ACD)			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 15							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-507/22				<b>Course title:</b> Pedagogical activity (4 hours/WS and 4 hours/SS) or alternative pedagogical work			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 2							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 860							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-016/22	<b>Course title:</b> Plant Cytology and Anatomy
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: consultations and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of plant cytology and anatomy. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research.	
<b>Class syllabus:</b> The advanced course on plant structural botany, which complements the knowledge about plant cytology and anatomy. It focuses on specific aspects of composition, physiology, metabolism and functions of various specialised types of plant cells, about their ontogenesis – from their development and differentiation to death. Next part is dedicated to plant meristems and specialised plant tissues, and to specific features of primary and secondary organisation of plant body in distinct phylogenetical groups. It covers also the ecological anatomy and advanced knowledge about plant embryology. The course also provides information regarding specific methods of cytological and anatomical research closely related with the dissertation thesis of the attendee.	
<b>Recommended literature:</b> Evert R.F. 2007. Esau´s Plant Anatomy. 3rd Ed. John Wiley and Sons, Hoboken, New Jersey.	

Keddy P. 2017. Plant Ecology: Origins, Processes, Consequences. 2nd Ed. Cambridge University Press, 624 pp.  
Lux A., et al., 2017. Visual Guide to Plant Anatomy. Academia, Praha, 325 pp.

**Languages necessary to complete the course:**

Slovak and English (the literature in English)

**Notes:**

**Past grade distribution**

Total number of evaluated students: 9

ABS	NEABS
100,0	0,0

**Lecturers:** prof. RNDr. Alexander Lux, CSc., doc. RNDr. Marek Vaculík, PhD.

**Last change:** 19.09.2022

**Approved by:** prof. RNDr. Alexander Lux, CSc.

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-009/22	<b>Course title:</b> Plant Metabolism
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: consultations and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> Advanced knowledge about plant cell activity from the large scale structural units up to the molecular mechanisms. The subject is a part of theoretical preparation for dissertation exam. Student should utilize the obtained knowledge by designing and elaborating dissertation thesis and in praxis during research and development career.	
<b>Class syllabus:</b> This subject is a theoretical part of individual study programme of a PhD student. It is focused on the molecular biology explanation of vital functions of plant cells and tissues and their regulation, from the gen activity to the final manifestation. The main aim is focused on metabolism regulation through the regulation of gene expression, regulation and compartmentalisation of enzymes, protein synthesis and degradation, carbon metabolism with a focus on plastid and mitochondria metabolism and their interaction inside the cytosol, nitrogen metabolism including nitrogen fixation, phosphor and sulphur metabolism, and perspectives of plant improvement by recombinant techniques. The student should participate on lectures and focus on self-study of adequate literature.	
<b>Recommended literature:</b> Zeiger E., Taiz L. 2010. Plant Physiology: International Edition, 5th Ed., pp. 782, ISBN: 0878935657	

Nilsen, E.T., Orcut, D.M., 1996. The physiology of plants under stress. Wiley Europe Publ., W. Sussex, 704 pp.  
 Slováková, L., Mistrík I. 2007. Fyziologické procesy rastlín v podmienkach stresu Bratislava: Univerzita Komenského, 2007, 1. vyd., 238 pp.  
 Lodish H., Berk A., Krieger M., Bretscher A., Amon A., Scott M.P. 2012. Molecular Cell Biology. 7th edition, ISBN-10: 142923413X  
 ISBN-13: 978-1429234139  
 Current professional journal and book literature on individual topics of the dissertation thesis.

**Languages necessary to complete the course:**

Slovak and English (the literature in English)

**Notes:**

**Past grade distribution**

Total number of evaluated students: 10

ABS	NEABS
100,0	0,0

**Lecturers:** doc. Mgr. Michal Martinka, PhD., RNDr. Karin Kollárová, PhD., Mgr. Veronika Zelinová, PhD.

**Last change:** 21.09.2022

**Approved by:** prof. RNDr. Alexander Lux, CSc.

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-015/22	<b>Course title:</b> Plant Physiology
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: consultations and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of plant physiology. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research.	
<b>Class syllabus:</b> The course is a part of individual education program of each PhD. student. It focuses on actual findings and recent knowledge from the field of plant physiology, especially on the area of structure, physiological functions of plant organism from molecular, subcellular to whole- plant level. The course also offers knowledge about current research methods used in the field. The course also provides information regarding specific methods of physiological research closely related with the dissertation thesis of the attendee.	
<b>Recommended literature:</b> Keddy P. 2017. Plant Ecology: Origins, Processes, Consequences. 2nd Ed. Cambridge University Press, 624 pp. Nobel P.S. 2020. Physicochemical and Environmental Plant Physiology. 2nd Ed.	

Taiz, L., Zeiger, E. 2011. Plant Physiology, 5th International Edition, Sinauer Associates, Inc., pp. 782.	
<b>Languages necessary to complete the course:</b> Slovak and English (the literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 18	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> doc. Mgr. Viktor Demko, PhD.	
<b>Last change:</b> 19.09.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-008/22	<b>Course title:</b> Plant under Stress Conditions
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: consultations and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> Advanced knowledge about structural and functional plant responses on abiotic and biotic stress. The subject is a part of theoretical preparation for dissertation exam. Student should utilize the obtained knowledge by designing and elaborating dissertation thesis and in praxis during research and development career.	
<b>Class syllabus:</b> This subject is a theoretical part of individual study programme of a PhD student. It is focused on the up to date knowledge about structural and functional plant responses on abiotic and biotic stress. It offers the knowledge about the involvement of molecular mechanisms of stress factor perception and transduction in biological regulation at molecular level and their manifestation in growth and development of plant organism influenced by severe environmental conditions. A part of the subject is focused on characterization of plant stress responses and utilization of recombinant methods in plant resistance and tolerance improvement against individual stressors. The student should participate on consultations and focus on self-study of adequate literature.	
<b>Recommended literature:</b> Evert R.F. 2007. Esau ´s Plant Anatomy. 3rd Ed. John Wiley and Sons, Hoboken, New Jersey. Lodish H., Berk A., Krieger M., Bretscher A., Amon A., Scott M.P. 2012. Molecular Cell Biology. 7th edition, ISBN-10: 142923413X	

ISBN-13: 978-1429234139 Zeiger E., Taiz L. 2010. Plant Physiology: International Edition, 5th Ed., pp. 782, ISBN: 0878935657  
 Nilsen, E.T., Orcut, D.M., 1996. The physiology of plants under stress. Wiley Europe Publ., W. Sussex, 704 pp.  
 Slováková, Ľ., Mistrík I. 2007. Fyziologické procesy rastlín v podmienkach stresu Bratislava: Univerzita Komenského, 2007, 1. vyd., 238 pp.  
 Pessarakli M. ed., 2011. Handbook of Plant and Crop Stress, Third edition, CRC Press Taylor and Francis Group, Boca Raton 1215 pp.

**Languages necessary to complete the course:**

Slovak and English (the literature in English)

**Notes:**

**Past grade distribution**

Total number of evaluated students: 11

ABS	NEABS
100,0	0,0

**Lecturers:** doc. Mgr. Renáta Švubová, PhD.

**Last change:** 21.09.2022

**Approved by:** prof. RNDr. Alexander Lux, CSc.

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-026/22	<b>Course title:</b> Professional English 1
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 1., 3.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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	
<b>Languages necessary to complete the course:</b> English	
<b>Notes:</b>	

<b>Past grade distribution</b>							
Total number of evaluated students: 404							
A	ABS	B	C	D	E	FX	NEABS
0,0	99,75	0,0	0,0	0,0	0,0	0,0	0,25
<b>Lecturers:</b> Mgr. Aneta Barnes, RNDr. Tatiana Slovakova, PhD.							
<b>Last change:</b> 03.10.2022							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-027/22	<b>Course title:</b> Professional English 2
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 5	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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	
<b>Languages necessary to complete the course:</b> English	
<b>Notes:</b> 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.	
<b>Past grade distribution</b>	
Total number of evaluated students: 139	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> Mgr. Aneta Barnes	
<b>Last change:</b> 03.10.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF.KDPP/N-DSSZ-500/22				<b>Course title:</b> Selected topics from university pedagogy for non-teachers			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 3							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 40							
A	ABS	B	C	D	E	FX	NEABS
0,0	95,0	0,0	0,0	0,0	0,0	0,0	5,0
<b>Lecturers:</b> RNDr. Jana Ciceková, PhD., doc. RNDr. PaedDr. Zuzana Haláková, PhD., PhDr. ThLic. Peter Ikhardt, PhD.							
<b>Last change:</b> 30.09.2022							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-012/22	<b>Course title:</b> Seminar for PhD Students 1
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: seminars and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of plant physiology. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research	
<b>Class syllabus:</b> Presentation of main topics and aims of dissertation thesis and state of the art of current knowledge related with the topic of dissertation thesis from the literature. The course also provides a theoretical training in specific methods of physiological research which can be used by the doctoral student in the laboratory experiments during experiments closely related with the dissertation thesis of the attendee.	
<b>Recommended literature:</b> Recent literature from journals publishing articles from the area of plant science, e.g. J. Exp. Bot., Environ. Exp. Bot., New Phytol., Plant Phys., Plant Mol. Biol., and others	
<b>Languages necessary to complete the course:</b> Slovak and English (the literature in English)	

<b>Notes:</b>	
<b>Past grade distribution</b>	
Total number of evaluated students: 13	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> prof. RNDr. Alexander Lux, CSc., doc. RNDr. Marek Vaculík, PhD.	
<b>Last change:</b> 16.09.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-013/22	<b>Course title:</b> Seminar for PhD Students 2
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: seminars and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 2.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of plant physiology. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research.	
<b>Class syllabus:</b> Presentation of skills related with understanding and acquiring of methods that doctoral student already uses or will use in the experimental part of the study. The course also provides a theoretical training in specific methods of physiological research that are used by other doctoral students, and which can be used by the doctoral student in the laboratory experiments during experimental work closely related with the dissertation thesis of the attendee.	
<b>Recommended literature:</b> Recent literature from journals publishing articles from the area of plant science, e. g. J. Exp. Bot., Environ. Exp. Bot., New Phytol., Plant Phys., Plant Mol. Biol., and others.	
<b>Languages necessary to complete the course:</b> Slovak and English (the literature in English)	

<b>Notes:</b>	
<b>Past grade distribution</b>	
Total number of evaluated students: 9	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> doc. Mgr. Viktor Demko, PhD.	
<b>Last change:</b> 16.09.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-014/22	<b>Course title:</b> Seminar for PhD Students 3
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: seminars and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 3.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of plant physiology. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research	
<b>Class syllabus:</b> Presentation of primary results and findings that has been achieved by doctoral student connected with the preparation of paper (abstract) that will be presented by doctoral student at international scientific meeting. The training of scientific discussion and argumentation in the front of scientific committee. Methodical preparation for writing of grant applications.	
<b>Recommended literature:</b> Recent literature from journals publishing articles from the area of plant science, e. g. J. Exp. Bot., Environ. Exp. Bot., New Phytol., Plant Phys., Plant Mol. Biol., and others.	
<b>Languages necessary to complete the course:</b> Slovak and English (the literature in English)	
<b>Notes:</b>	

<b>Past grade distribution</b>	
Total number of evaluated students: 9	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> prof. RNDr. Alexander Lux, CSc., doc. Mgr. Boris Bokor, PhD.	
<b>Last change:</b> 16.09.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-022/22	<b>Course title:</b> Slovak for Foreign Doctoral Students 1
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 1., 2., 3., 4..	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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: <a href="https://uniba.sk/krizom-krazom">https://uniba.sk/krizom-krazom</a> Worksheets, website: <a href="https://slovake.eu/sk">https://slovake.eu/sk</a>	
<b>Recommended literature:</b> 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: <a href="https://uniba.sk/krizom-krazom">https://uniba.sk/krizom-krazom</a> Worksheets, website: <a href="https://slovake.eu/sk">https://slovake.eu/sk</a>	

<b>Languages necessary to complete the course:</b> Slovak in combination with English (the study literature is in both Slovak and English)							
<b>Notes:</b> It is possible to register for the course just once. Students may begin in either the Summer or Winter semester.							
<b>Past grade distribution</b> Total number of evaluated students: 93							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Mgr. Karin Rózsová Wolfová							
<b>Last change:</b> 28.09.2022							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-023/22	<b>Course title:</b> Slovak for Foreign Doctoral Students 2
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 1., 2., 3., 4..	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1 Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, workbook Audio program: <a href="https://uniba.sk/krizom-krazom">https://uniba.sk/krizom-krazom</a> Worksheets are prepared by the course instructor. Portal: <a href="https://slovae.eu/sk">https://slovae.eu/sk</a>	
<b>Languages necessary to complete the course:</b> 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: 64

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:** prof. RNDr. Alexander Lux, CSc.

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-024/22	<b>Course title:</b> Slovak for Foreign Doctoral Students 3
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 1., 2., 3., 4..	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1, A2 Kamenárová, R. a kol.: Krížom-krážom, Slovenčina A1+A2, workbook Audio program: <a href="https://uniba.sk/krizom-krazom">https://uniba.sk/krizom-krazom</a> Worksheets are prepared by the course instructor. Portal: <a href="https://slovake.eu/sk">https://slovake.eu/sk</a>	
<b>Languages necessary to complete the course:</b> 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: 59

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:** prof. RNDr. Alexander Lux, CSc.

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KJ/N-DSSZ-028/22	<b>Course title:</b> Slovak for Foreign Doctoral Students 4
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Number of credits:</b> 2	
<b>Recommended semester:</b> 1., 2., 3., 4..	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> 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.	
<b>Learning outcomes:</b> 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.	
<b>Class syllabus:</b> 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.	
<b>Recommended literature:</b> 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: <a href="https://uniba.sk/krizom-krazom">https://uniba.sk/krizom-krazom</a> Worksheets, website: <a href="https://slovake.eu/sk">https://slovake.eu/sk</a>	
<b>Languages necessary to complete the course:</b>	

Language of instruction: Slovak in combination with English (the study literature is in Slovak).							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 19							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b> Mgr. Karin Rózsová Wolfová							
<b>Last change:</b> 18.10.2022							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-506/22				<b>Course title:</b> Supervisor of the SSC contribution			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 4							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 12							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027	
<b>University:</b> Comenius University Bratislava	
<b>Faculty:</b> Faculty of Natural Sciences	
<b>Course ID:</b> PriF.KFR/N-DBFR-007/22	<b>Course title:</b> Transport Processes in Plants
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning	
<b>Type, volume, methods and workload of the student - additional information</b> Form of Study: consultations and independent study activity Number of contact hours: 26 hrs per week: 2 hrs per level/semester: 13 weeks Form of the course: on-site learning or distant	
<b>Number of credits:</b> 3	
<b>Recommended semester:</b> 1.	
<b>Educational level:</b> III.	
<b>Prerequisites:</b>	
<b>Course requirements:</b> Obtaining the evaluation “pass” is conditioned by passing an oral exam on a selected issue at the level of at least 60 %. The evaluation on a lower level (i. e. 59 % and less) will be classified as “fail”. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
<b>Learning outcomes:</b> The course should provide an extended and updated knowledge about specific areas of transport processes in plants. These knowledges exceed those that are offered to students in the master’s degree. The aim of the course is also to prepare students for their dissertation state exams. Obtained knowledge should be later used by students during preparation of their dissertation theses and after the successful graduation in future scientific research.	
<b>Class syllabus:</b> The subject is a part of individual training of PhD. students. It focuses on recent knowledge about membrane biophysics and biochemistry, electric and osmotic phenomenon occurring at the cell membranes, on kinetics and thermodynamics of membrane transport. The part of the course covers also recent experimental methods of water, metabolite and ion transport into the cells, cell organelles and radial and longitudinal transport of solutes in the whole plants. The course also provides information regarding specific methods of physiological research closely related with the dissertation thesis of the attendee.	
<b>Recommended literature:</b> Evert R.F. 2007. Esau´s Plant Anatomy. 3rd Ed. John Wiley and Sons, Hoboken, New Jersey. Keddy P. 2017. Plant Ecology: Origins, Processes, Consequences. 2nd Ed. Cambridge University Press, 624 pp.	

Nobel P.S. 2020. Physicochemical and Environmental Plant Physiology. 2nd Ed.	
<b>Languages necessary to complete the course:</b> Slovak and English (the literature in English)	
<b>Notes:</b>	
<b>Past grade distribution</b> Total number of evaluated students: 13	
ABS	NEABS
100,0	0,0
<b>Lecturers:</b> doc. RNDr. Zuzana Lukačová, PhD.	
<b>Last change:</b> 21.09.2022	
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.	

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-404/22				<b>Course title:</b> V1 Scientific output as a whole - ESB monograph (originally AAA, ABA), individual authorship less than 3 AH			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-401/22				<b>Course title:</b> V1 Scientific output as a whole – ESB monograph (originally AAA, ABA), individual authorship share $\geq 3$ AH			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 30							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-405/22			<b>Course title:</b> V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship less than 3 AH				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-402/22			<b>Course title:</b> V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship share $\geq 3$ AH				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 30							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-411/22			<b>Course title:</b> V2 Scientific output as part of ESB, collection - contribution in peer reviewed scientific collection, monograph (originally AEC, AFA, AFC, AED)				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 6							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 529							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-406/22				<b>Course title:</b> V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship less than 3 AH			
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 4							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-403/22			<b>Course title:</b> V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship $\geq 3$ AH				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 30							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> 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
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-410/22			<b>Course title:</b> V3 Scientific output in a journal outside the index databases (originally ADE, ADF)				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 12							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 82							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-407/22			<b>Course title:</b> V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/Q1 – Q2 (originally ADC, ADD, ADM, ADN), first or corresponding author				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 50							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 234							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-408/22			<b>Course title:</b> V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/Q3- Q4 (originally ADC, ADD, ADM, ADN), first or corresponding author				
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 40							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 113							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							

## COURSE DESCRIPTION

<b>Academic year:</b> 2026/2027							
<b>University:</b> Comenius University Bratislava							
<b>Faculty:</b> Faculty of Natural Sciences							
<b>Course ID:</b> PriF/N-DSSZ-409/22		<b>Course title:</b> V3 Scientific output in the journal registered by CCC, WOS, SCOPUS - JCR/Q1 – Q2 – Q3 - Q4 (originally ADC, ADD, ADM, ADN), co-author					
<b>Educational activities:</b> <b>Type of activities:</b> <b>Number of hours:</b> <b>per week: per level/semester:</b> <b>Form of the course:</b> on-site learning							
<b>Number of credits:</b> 20							
<b>Recommended semester:</b>							
<b>Educational level:</b> III.							
<b>Prerequisites:</b>							
<b>Course requirements:</b>							
<b>Learning outcomes:</b>							
<b>Class syllabus:</b>							
<b>Recommended literature:</b>							
<b>Languages necessary to complete the course:</b>							
<b>Notes:</b>							
<b>Past grade distribution</b> Total number of evaluated students: 391							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
<b>Lecturers:</b>							
<b>Last change:</b>							
<b>Approved by:</b> prof. RNDr. Alexander Lux, CSc.							