

Course descriptions

TABLE OF CONTENTS

1. N-DSSZ-412/22 Abstract of a contribution from a domestic or an international conference (originally AFG, AFK, AFH, AFL).....	3
2. N-DBEK-005/22 Actual problems in ecology.....	4
3. N-DBEK-006/22 Actual problems in evolutionary biology.....	6
4. N-DBFR-017/22 Advanced Experimental Plant Biology.....	8
5. N-DSSZ-505/22 Bachelor's thesis reviewer.....	10
6. N-DSSZ-504/22 Bachelor's thesis supervisor.....	11
7. N-DBAN-005/22 Bioarchaeology.....	12
8. N-DSSZ-414/22 Completing a long-term ERASMUS+ internship (minimum 60 days).....	14
9. N-DSSZ-415/22 Completion of SAIA/NŠP internship program or other equivalent (minimum 30 days).....	15
10. N-DSSZ-416/22 Completion of a short-term foreign internship (15-30 days, and related to the topic of the PhD thesis).....	16
11. N-DSSZ-303/22 Defence of dissertation thesis (state exam).....	17
12. N-DSSZ-303/22 Defence of dissertation thesis (state exam).....	18
13. N-DSSZ-303/22 Defence of dissertation thesis (state exam).....	19
14. PriF-DSSZ-001/22 Dissertation 1.....	20
15. PriF-DSSZ-001/22 Dissertation 1.....	22
16. PriF-DSSZ-001/22 Dissertation 1.....	24
17. PriF-DSSZ-002/22 Dissertation 2.....	25
18. PriF-DSSZ-002/22 Dissertation 2.....	27
19. PriF-DSSZ-002/22 Dissertation 2.....	28
20. PriF-DSSZ-003/22 Dissertation 3.....	30
21. PriF-DSSZ-003/22 Dissertation 3.....	32
22. PriF-DSSZ-003/22 Dissertation 3.....	34
23. PriF-DSSZ-004/22 Dissertation 4.....	35
24. PriF-DSSZ-004/22 Dissertation 4.....	37
25. PriF-DSSZ-004/22 Dissertation 4.....	39
26. PriF-DSSZ-005/22 Dissertation 5.....	40
27. PriF-DSSZ-005/22 Dissertation 5.....	42
28. PriF-DSSZ-005/22 Dissertation 5.....	44
29. PriF-DSSZ-006/22 Dissertation 6.....	46
30. PriF-DSSZ-006/22 Dissertation 6.....	47
31. PriF-DSSZ-006/22 Dissertation 6.....	48
32. PriF-DSSZ-007/22 Dissertation 7.....	49
33. PriF-DSSZ-007/22 Dissertation 7.....	50
34. PriF-DSSZ-007/22 Dissertation 7.....	51
35. PriF-DSSZ-008/22 Dissertation 8.....	52
36. PriF-DSSZ-024/22 Dissertation 8.....	53
37. PriF-DSSZ-024/22 Dissertation 8.....	54
38. PriF-DSSZ-009/22 Dissertation 9.....	55
39. PriF-DSSZ-025/22 Dissertation 9.....	56
40. PriF-DSSZ-025/22 Dissertation 9.....	57
41. N-DBAN-400/22 Dissertation exam (state exam).....	58
42. N-DBEK-400/22 Dissertation exam (state exam).....	59
43. N-DBFR-400/22 Dissertation exam (state exam).....	61
44. N-DBEK-004/22 Excursion Biomes.....	63

45. N-DBFR-018/22	Experimental Structural Plant Physiology.....	65
46. N-DBAN-004/22	Forensic Anthropology.....	67
47. N-DBAN-002/22	Genetic Variability and Adaptability of Human Populations.....	69
48. N-DSSZ-400/22	Grant CU or Grant SAS or equivalent grant.....	71
49. N-DSSZ-413/22	Intellectual Property Rights Document (originally AGJ).....	72
50. N-DSSZ-508/22	Other activities.....	73
51. N-DSSZ-501/22	P1 Pedagogical output as a whole (originally ACA, ACB, BCI, BCB).....	74
52. N-DSSZ-503/22	P2 Pedagogical output as a part (originally BCK).....	75
53. N-DSSZ-502/22	P2 Pedagogical output as part (originally ACC, ACD).....	76
54. N-DSSZ-507/22	Pedagogical activity (4 hours/WS and 4 hours/SS) or alternative pedagogical work.....	77
55. N-DBAN-001/22	Physical Antropology.....	78
56. N-DBFR-009/22	Plant Metabolism.....	80
57. N-DBFR-008/22	Plant under Stress Conditions.....	82
58. N-DSSZ-026/22	Professional English 1.....	84
59. N-DSSZ-500/22	Selected topics from university pedagogy for non-teachers.....	86
60. N-DBEK-001/22	Seminar from Ecology and Evolution Biology for PhD students 1.....	87
61. N_DBEK-002/22	Seminar from Ecology and Evolution Biology for PhD students 2.....	89
62. N-DBEK-003/22	Seminar from Ecology and Evolution Biology for PhD students 3.....	91
63. N-DBAN-003/22	Special Applied Anthropology.....	93
64. N-DSSZ-506/22	Supervisor of the SSC contribution.....	95
65. N-DBFR-007/22	Transport Processes in Plants.....	96
66. N-DSSZ-404/22	V1 Scientific output as a whole - ESB monograph (originally AAA, ABA), individual authorship less than 3 AH.....	98
67. N-DSSZ-401/22	V1 Scientific output as a whole – ESB monograph (originally AAA, ABA), individual authorship share ≥ 3 AH.....	99
68. N-DSSZ-405/22	V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship less than 3 AH.....	100
69. N-DSSZ-402/22	V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship share ≥ 3 AH.....	101
70. N-DSSZ-411/22	V2 Scientific output as part of ESB, collection - contribution in peer reviewed scientific collection, monograph (originally AEC, AFA, AFC, AED).....	102
71. N-DSSZ-406/22	V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship less than 3 AH.....	103
72. N-DSSZ-403/22	V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship ≥ 3 AH.....	104
73. N-DSSZ-410/22	V3 Scientific output in a journal outside the index databases (originally ADE, ADF).....	105
74. N-DSSZ-407/22	V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/ Q1 – Q2 (originally ADC, ADD, ADM, ADN), first or corresponding author.....	106
75. N-DSSZ-408/22	V3 Scientific output in a journal registered by CCC, WOS, SCOPUS - JCR/ Q3- Q4 (originally ADC, ADD, ADM, ADN), first or corresponding author.....	107
76. N-DSSZ-409/22	V3 Scientific output in the journal registered by CCC, WOS, SCOPUS - JCR/ Q1 – Q2 – Q3 - Q4 (originally ADC, ADD, ADM, ADN), co-author.....	108
77. N-DGPA-013/22	Štúdium oceánu, oceánografia a klíma.....	109

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-005/22	Course title: Actual problems in ecology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Recommended range of teaching (in hours): Weekly: 1 For the period of study: 14 Study method: on-site learning	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: The course will be provided through consultations with supervisors focused on issues related to the topic of the dissertation thesis. The assessment is standard and reflects the sufficient orientation of the student in the issue. The conditions for successful completion of the course are in accordance with the Study Regulations of PriF UK.	
Learning outcomes: The aim of the course is to specify the problems related to the objectives of the dissertation thesis. The supervisors, together with the students, will try to eliminate all the identified limitations, or find the most suitable way to solve the problem.	
Class syllabus: During the semester, the student in the form of regular consultations with the supervisor and self-study summarizes all current issues that were encountered during the realization of the research and obtaining the results. Possible technical risks will also be discussed and possible solutions proposed.	
Recommended literature: Current professional journal literature on individual topics of the dissertation thesis	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	
Notes:	

Past grade distribution	
Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers: RNDr. Pavel Beracko, PhD., doc. RNDr. Tomáš Derka, PhD., doc. RNDr. Eva Záhorská, PhD.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-006/22	Course title: Actual problems in evolutionary biology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Form of instruction: lecture Recommended range of teaching (in hours): 1 Weekly: For the period of study: 14 Study method: attendance	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Successful completion of the course is conditioned by writing an essay on a selected issue at least 61%. Credits will not be awarded to a student who receives less than 61%.	
Learning outcomes: The lecture is focused on understanding the basic principles, with emphasis on current issues in this field. The student will gain a general overview of phylogeny and its principles, about innovations (including the most important – the Cambrian "explosion" 550 million years ago) and adaptations and principles of the so-called adaptive landscape, about diversity, genotype and phenotype, but also about the importance of individual variability needed for natural selection - variability is a wide range that "passes" through the sieve of natural selection, but also about the play of the factor of "happiness and pitch" and theory of games. Over time, species change and adapt to new environments - as evidenced by the fossil record. And how this happens helps to explain the principles of evolutionary biology. However, there are still many current issues, such as a comprehensive definition of a species as a unit entering into interaction. It is a dynamic field of science encompassing all aspects of modern biology. This course will help the student to orientate in it and gain knowledge that can be applied and developed in any chosen field.	
Class syllabus: 1. Basic principles of evolutionary biology 2. Strategy, phenotype, innovation and adaptations 3. Phylogenetic systematics 4. Diversity 5. Paleontology, evolution in time, mass extinctions 6. Historical aspects of evolutionary biology 7. Current problems (morphology vs molecules, what is a species -? Biological species vs.	

phylogenetic species, evolutionary games, altruism and others)	
Recommended literature: Darwin, Ch. 1859 (2006). Pôvod druhov. Kalligram. pp. 542. Gould, S.J. 1990: Wonderful Life - The Burgess Shale and the Nature of History. W.W. Norton & Co. Pp. 352. Skelton, P. & Smith, A. 2002. Cladistics. Cambridge University Press. Zrzavý et al. 2017: Jak se dělá Evoluce – Labyrintem evolučný biologie. Agro, pp. 479. Flegr, J. 2018: Evoluční biologie. Academia. Pp. 572. Pianka, E.R. 1994 Evolutionary ecology. HarperCollins, New York. 486 pp.	
Languages necessary to complete the course: Slovak / English	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers: Mgr. Andrej Čerňanský, PhD., prof. RNDr. Jozef Klembara, DrSc.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-017/22	Course title: Advanced Experimental Plant Biology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Form of instruction: lecture Recommended range of teaching (in hours): 52 Weekly: 4 hrs For the period of study: 13 weeks Study method: combined	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Successful completion of the course is conditioned by passing an oral exam on a selected issue at least 60%. Credits will not be awarded to a student who receives less than 59%. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Advanced knowledge about Experimental plant biology. Student should utilize the obtained knowledge by designing and elaborating dissertation thesis and in praxis during research and development career.	
Class syllabus: This subject is a compulsory part of individual study programme of a PhD student and is focused on the acquiring of up to date knowledge about Experimental plant biology. The main aim is focused on the experimental treatment of biological functions of plant body on all structural levels. Except of finding out the basic mechanism, the subject focuses on experimental modification of inter-cellular communication and regulatory mechanisms. The student should participate on lectures and focus on self-study of adequate literature. Tutor is suggesting the most important studying areas with the focus on the theme of dissertation thesis	
Recommended literature: 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
Pollard T.D., Earnshaw W.C., Lippincott-Schwartz J. 2007. Cell Biology. 2nd Edition. ISBN-10: 1416022554
ISBN-13: 978-1416022558
Current professional journal and book literature on individual topics of the dissertation thesis.

Languages necessary to complete the course:

Slovak in combination with English (study of literature in English)

Notes:

Past grade distribution

Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Viktor Demko, PhD.

Last change: 07.11.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-505/22				Course title: Bachelor's thesis reviewer			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 3							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-504/22				Course title: Bachelor's thesis supervisor			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 8							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-005/22	Course title: Bioarchaeology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information no specification considering the doctoral degree (choice of methods - full-time, distance, combined)	
Number of credits: 3	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Individual subject evaluation is regarding the doctoral student's individual study plan and agreement between the supervisor and the doctoral student. A standard evaluation reflects the student's sufficient orientation in the issue. Requirements for successful subject completion are in concordance with the Study Regulations of the Faculty of Natural Sciences.	
Learning outcomes: Successful completion of Bioarchaeology provides sufficient orientation in the field focusing on dissertation thesis following the specifications of individual topics. The acquired knowledge is essential for a theoretical aspect of knowledge and understanding to complete successfully a doctoral study in the Anthropology field and to support development and potential in a wide range of applied practice. Learning outcomes should be reflected in the student's overview at the level of methodological approaches to the issue.	
Class syllabus: Bioarchaeology is an optional subject of the doctoral student's study activities in the Anthropology program. It has a partially individual character due to the focus on the issue in the dissertation thesis. It is recommended mainly for doctoral students focusing their dissertation on historical and forensic anthropology. The basic syllabus is determined as follows: advanced methods in bioarchaeological research, cooperation anthropologist- archaeologist-zooarcheologist, reconstruction of the life of past populations, paleopathological analysis, and interpretation of pathological lesions in the context of historical population, paleoepidemiology of the most common diseases in the past, histological and X-ray methods of research and analysis of skeletal remains.	
Recommended literature: No specification due to the character of the subject. Recommended literature is part of the doctoral student's individual study plan. Overview and essential references for seminar work on a given topic.	
Languages necessary to complete the course:	

Slovak in combination with English (study literature in English)	
Notes:	
Past grade distribution	
Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Radoslav Beňuš, PhD., Mgr. Silvia Bodoriková, PhD., prof. Mgr. Viktor Černý, Dr.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-414/22			Course title: Completing an long-term ERASMUS+ internship (minimum 60 days)				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DSSZ-303/22	Course title: Defence of dissertation thesis
Number of credits: 30	
Educational level: III.	
Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava upon submission of the written part of the dissertation thesis (as final work). Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: The aim of the course is to capitalise on theoretical, methodological and applied knowledge of doctoral studies in the elaboration and subsequent defence of the dissertation thesis, and thus the successful completion of doctoral studies.	
Class syllabus: Brief outline of the course: The student's dissertation thesis will demonstrate his/her ability and readiness for independent scientific and creative activities in the area of research or development or for independent theoretical and creative artistic creativity. It should be characterised by a high degree of analysis and synthesis of knowledge, as well as a sufficient overview of existing literature. The work must be original and created by the author in compliance with the rules of working with information sources. The academic work must not appear to be plagiarised, nor infringe the copyrights of other authors. The author is required to thoroughly cite the information sources used, list the specific results of other authors or team of authors by citing the source, accurately describe the methods and working procedures of other authors or teams of authors, and document the laboratory results and field research of other authors or teams of authors. Style of citation is governed by the practice in the given scientific field, respecting the relevant norms and standards.	
State exam syllabus:	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Last change: 24.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DSSZ-303/22	Course title: Defence of dissertation thesis
Number of credits: 30	
Educational level: III.	
<p>Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava upon submission of the written part of the dissertation thesis (as final work). Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.</p>	
<p>Learning outcomes: Educational outcomes: The aim of the course is to capitalise on theoretical, methodological and applied knowledge of doctoral studies in the elaboration and subsequent defence of the dissertation thesis, and thus the successful completion of doctoral studies.</p>	
<p>Class syllabus: Brief outline of the course: The student's dissertation thesis will demonstrate his/her ability and readiness for independent scientific and creative activities in the area of research or development or for independent theoretical and creative artistic creativity. It should be characterised by a high degree of analysis and synthesis of knowledge, as well as a sufficient overview of existing literature. The work must be original and created by the author in compliance with the rules of working with information sources. The academic work must not appear to be plagiarised, nor infringe the copyrights of other authors. The author is required to thoroughly cite the information sources used, list the specific results of other authors or team of authors by citing the source, accurately describe the methods and working procedures of other authors or teams of authors, and document the laboratory results and field research of other authors or teams of authors. Style of citation is governed by the practice in the given scientific field, respecting the relevant norms and standards.</p>	
State exam syllabus:	
<p>Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.</p>	
<p>Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)</p>	
Last change: 24.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DSSZ-303/22	Course title: Defence of dissertation thesis
Number of credits: 30	
Educational level: III.	
<p>Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava upon submission of the written part of the dissertation thesis (as final work). Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.</p>	
<p>Learning outcomes: Educational outcomes: The aim of the course is to capitalise on theoretical, methodological and applied knowledge of doctoral studies in the elaboration and subsequent defence of the dissertation thesis, and thus the successful completion of doctoral studies.</p>	
<p>Class syllabus: Brief outline of the course: The student's dissertation thesis will demonstrate his/her ability and readiness for independent scientific and creative activities in the area of research or development or for independent theoretical and creative artistic creativity. It should be characterised by a high degree of analysis and synthesis of knowledge, as well as a sufficient overview of existing literature. The work must be original and created by the author in compliance with the rules of working with information sources. The academic work must not appear to be plagiarised, nor infringe the copyrights of other authors. The author is required to thoroughly cite the information sources used, list the specific results of other authors or team of authors by citing the source, accurately describe the methods and working procedures of other authors or teams of authors, and document the laboratory results and field research of other authors or teams of authors. Style of citation is governed by the practice in the given scientific field, respecting the relevant norms and standards.</p>	
State exam syllabus:	
<p>Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.</p>	
<p>Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)</p>	
Last change: 19.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/PriF-DSSZ-001/22	Course title: Dissertation 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 4	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 12.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/PriF-DSSZ-001/22	Course title: Dissertation 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature:	

No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 16	
ABS	NEABS
100,0	0,0
Lecturers: prof. RNDr. Alexander Lux, CSc.	
Last change: 07.11.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-001/22	Course title: Dissertation 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 5	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 27.07.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/PriF-DSSZ-002/22	Course title: Dissertation 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK. V prípade dištančnej výučby bude štruktúra a obsahová náplň predmetu zachovaná, len bude prezentovaná dištančnou formou.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature:	

No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 10	
ABS	NEABS
100,0	0,0
Lecturers: doc. Mgr. Michal Martinka, PhD.	
Last change: 07.11.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-002/22	Course title: Dissertation 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 4	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 27.07.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/PriF-DSSZ-002/22	Course title: Dissertation 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 18.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/PriF-DSSZ-003/22	Course title: Dissertation 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 3	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 18.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/PriF-DSSZ-003/22	Course title: Dissertation 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature:	

No specifications regarding the character of a specific topic for the dissertation thesis.
Recommended literature is included in the doctoral student's individual study plan.

Languages necessary to complete the course:

Required language for successful course completion:

Slovak language in combination with English (study literature in English)

Notes:

Past grade distribution

Total number of evaluated students: 11

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Renáta Švubová, PhD.

Last change: 07.11.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-003/22	Course title: Dissertation 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 3	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 27.07.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/PriF-DSSZ-004/22	Course title: Dissertation 4
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 4.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/PriF-DSSZ-004/22	Course title: Dissertation 4
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 4.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature:	

No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 7	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 07.11.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-004/22	Course title: Dissertation 4
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 4.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 5	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 27.07.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/PriF-DSSZ-005/22	Course title: Dissertation 5
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information 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)	
Number of credits: 5	
Recommended semester: 5.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature:	

<p>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.</p>	
<p>Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)</p>	
<p>Notes:</p>	
<p>Past grade distribution Total number of evaluated students: 0</p>	
ABS	NEABS
0,0	0,0
<p>Lecturers:</p>	
<p>Last change: 03.10.2022</p>	
<p>Approved by: prof. RNDr. Jozef Klembara, DrSc.</p>	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-005/22	Course title: Dissertation 5
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information No specifications concerning the degree of study (choice of methods – in class, distant learning, or a combination of both)	
Number of credits: 5	
Recommended semester: 5.	
Educational level: III.	
Prerequisites:	
Course requirements: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK.	
Learning outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature:	

No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 4	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 03.10.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/PriF-DSSZ-005/22	Course title: Dissertation 5
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information 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)	
Number of credits: 5	
Recommended semester: 5.	
Educational level: III.	
Prerequisites:	
Course requirements: Conditions for passing the course: Course evaluation will be conducted individually based on the doctoral student's individual study plan, as well as on the basis of an agreement between the academic supervisor and doctoral student. Evaluation is standard and shall reflect a sufficient orientation of the student in the presented subject matter for successful course completion according to the Study Regulations of the Faculty of Natural Sciences UK. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Educational outcomes: By passing this subject, the student will achieve sufficient orientation in the project issue of the dissertation thesis based on specific individual topics. This set task of knowledge is essential for a firmly established theoretical readiness of the course graduate in terms of his/her awareness, and equally supports his/her potential in a wide field of applied practice. Undoubtedly, the outcomes of his/her education will also be reflected in the student's overview in terms of methodological approaches in the subject matter.	
Class syllabus: Brief outline of the course: The subject Dissertation Thesis is a compulsory part of the doctoral student's study activities. The student requires a supremely individual character with regard to the specifics of the individual topics of the dissertation thesis. The basic syllabus should already be evident within the individual study plan of the doctoral student. The subject is important especially in terms of understanding the basic theoretical and methodological aspects of the solution to the topic of the dissertation thesis with emphasis on self-study and consultation with the academic supervisor and a wide spectrum of consultants, who will	

take part in creating the professional potential of the doctoral student for the next (scientific) stage of his/her studies.	
Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.	
Languages necessary to complete the course: Required language for successful course completion: Slovak language in combination with English (study literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 12	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change: 07.11.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-006/22	Course title: Dissertation 6
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 6.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-007/22	Course title: Dissertation 7
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 7.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers:	
Last change:	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-008/22	Course title: Dissertation 8
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 8.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/PriF-DSSZ-009/22	Course title: Dissertation 9
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 9.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers:	
Last change:	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-400/22	Course title: Dissertation exam
Number of credits: 15	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-400/22	Course title: Dissertation exam
Number of credits: 15	
Educational level: III.	
<p>Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava, as well as submission of the written part of the dissertation thesis within the set deadline. The subjects of the state examination include a discussion about the written work of the dissertation examination (prepared by the doctoral student), as well as other subjects of the oral examination (ad hoc) approved by the Dean. Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.</p>	
<p>Learning outcomes: Educational outcomes: The objective of the course is to gain basic habits and cultural-ethical aspects of working with scientific literature, evaluation, and systemization of the studied knowledge. The doctoral student needs to successfully pass the dissertation examination according to the act on Universities and Study Regulations of the Faculty of Natural Sciences of Comenius University in Bratislava.</p>	
<p>Class syllabus: Brief outline of the course: Based on the description of the starting points, principles, and conclusions from the published results of the studied issues, the aim is to teach the doctoral student how to process critical research. A further objective is to understand the principles of scientific work and its legal, physical, and social attributes. The main output is the elaboration of the written work for the dissertation examination and its successful completion in accordance with the Study Regulations of the Faculty of Natural Sciences UK. The form and content of the work is regulated by article 34, paragraph 4 of the Study Regulations of the Faculty of Natural Sciences UK. The dissertation examination consists of a part consisting of a discussion of the written work for the dissertation examination, as well as a part in which the doctoral student needs to demonstrate theoretical knowledge according to the focus of the dissertation topic. The composition of the Examination Committee, the determination of the Opponent (expert examiner) and the general course of the dissertation examination are governed by the current Study Regulations of the Faculty of Natural Sciences UK.</p>	
State exam syllabus:	
<p>Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.</p>	
Languages necessary to complete the course:	

Required language for successful course completion: Slovak language in combination with English (study literature in English)
--

Last change: 19.10.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

STATE EXAM DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-400/22	Course title: Dissertation exam
Number of credits: 15	
Educational level: III.	
<p>Course requirements: Conditions for passing the course: Course evaluation takes place as a part of the State examination in accordance to the Study regulations of the Faculty of Natural Sciences UK in Bratislava, as well as submission of the written part of the dissertation thesis within the set deadline. The subjects of the state examination include a discussion about the written work of the dissertation examination (prepared by the doctoral student), as well as other subjects of the oral examination (ad hoc) approved by the Dean. Assessment is standard and reflects the student's sufficient orientation in the issue. The conditions for successful course completion are in accordance with the Study Regulations of the Faculty of Natural Sciences UK.</p>	
<p>Learning outcomes: Educational outcomes: The objective of the course is to gain basic habits and cultural-ethical aspects of working with scientific literature, evaluation, and systemization of the studied knowledge. The doctoral student needs to successfully pass the dissertation examination according to the act on Universities and Study Regulations of the Faculty of Natural Sciences of Comenius University in Bratislava.</p>	
<p>Class syllabus: Brief outline of the course: Based on the description of the starting points, principles, and conclusions from the published results of the studied issues, the aim is to teach the doctoral student how to process critical research. A further objective is to understand the principles of scientific work and its legal, physical, and social attributes. The main output is the elaboration of the written work for the dissertation examination and its successful completion in accordance with the Study Regulations of the Faculty of Natural Sciences UK. The form and content of the work is regulated by article 34, paragraph 4 of the Study Regulations of the Faculty of Natural Sciences UK. The dissertation examination consists of a part consisting of a discussion of the written work for the dissertation examination, as well as a part in which the doctoral student needs to demonstrate theoretical knowledge according to the focus of the dissertation topic. The composition of the Examination Committee, the determination of the Opponent (expert examiner) and the general course of the dissertation examination are governed by the current Study Regulations of the Faculty of Natural Sciences UK.</p>	
State exam syllabus:	
<p>Recommended literature: Recommended literature: No specifications regarding the character of a specific topic for the dissertation thesis. Recommended literature is included in the doctoral student's individual study plan.</p>	
Languages necessary to complete the course:	

Required language for successful course completion: Slovak language in combination with English (study literature in English)
--

Last change: 19.10.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-004/22	Course title: Excursion Biomes
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Type of activities: excursion Number of hours: 3 weeks Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 2., 4.	
Educational level: III.	
Prerequisites:	
Course requirements: Participation in the excursion, processing and presentation of selected topic directly on the excursion.	
Learning outcomes: The aim of the seminar is a critical evaluation of the objectives of the dissertation thesis in the form of a presentation and subsequent discussion.	
Class syllabus: The aim of the course is to present directly in the field the structure and functioning of selected biomes: savannas, deserts, tropical rainforests, alpine, marine ecosystems, etc. Attention will be paid to the importance of individual types of ecosystems from a regional and global aspect, human impact and status and the possibilities of their protection.	
Recommended literature: Jeník, J.1998. Ekosystémy (Úvod do organizace zonálních a azonálních biomů). Nakladatelství UK, Karolínium, Praha, 135 s. Májsku, J., Derka, T. 2016. Od Karibiku po Andy. Spoznávanie venezuelskej flóry a fauny očami stredoeurópana. Veda, Bratislava, 408 s. Osborne, P.L 2012. Tropical Ecosystems and Ecological Concepts. Cambridge University Press, 522 s. Prach, K., Štech, M., Říha, P. 2009. Ekologie a rozšíření biomů na Zemi. Scientia, Praha151 s. Woodward S.L.2003. Biomes of Earth. Greenwood Press, 435 s.	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	

Notes:	
Past grade distribution	
Total number of evaluated students: 4	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Tomáš Derka, PhD.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-018/22	Course title: Experimental Structural Plant Physiology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Form of instruction: lecture Recommended range of teaching (in hours): 52 Weekly: 4 hrs For the period of study: 13 weeks Study method: combined	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Successful completion of the course is conditioned by passing an oral exam on a selected issue at least 60%. Credits will not be awarded to a student who receives less than 59%. The structure and content of the course in case of distant form will be the same, but it will be presented by distant way.	
Learning outcomes: Advanced knowledge about Experimental structural plant physiology. A student passing the subject will obtain knowledge about the specific experimental treatments affecting structure, physiology, metabolism, and function of different specialised cell types, about their total ontogenesis – from establishment via differentiation up to a death. Student will find the knowledge about ecological anatomy and plant adaptations to treatment conditions and ability to extrapolate the results on potential environmental changes in the future. Student should utilize the obtained knowledge by designing and elaborating dissertation thesis and in praxis during research and development career.	
Class syllabus: This subject is a compulsory part of individual study programme of a PhD student and is focused on the acquiring of up to date knowledge about Experimental structural plant physiology. The main aim is focused on the relation between structures and physiological function in plant body from molecular and cellular to the whole organism level. Except of finding out the functional plant cell biology and anatomy, role of cell structures in different physiological processes, and regulating mechanisms, the inherent part of the subject is the knowledge about experimental influencing of mechanisms and basic physiological processes in plants. The modern methodological procedures used in experimental structural plant physiology are included too. The student should participate on lectures and focus on self-study of adequate literature.	

Recommended literature:

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

Pollard T.D., Earnshaw W.C., Lippincott-Schwartz J. 2007. Cell Biology. 2nd Edition. ISBN-10: 1416022554

ISBN-13: 978-1416022558

Alberts B., Johnson A., Lewis J., Raff M., Roberts K., Walter P. 2007. Molecular Biology of the Cell. 5th Edition. ISBN-10: 0815341059

ISBN-13: 978-0815341055

Karp G. 2009. Cell and Molecular Biology: Concepts and Experiments. 6th Edition. ISBN-10: 0470483377

ISBN-13: 978-0470483374

Vesteg M., Krajčovič J. 2011. The falsifiability of the models for the origin of eukaryotes. Current Genetics 57: 367-390.

Current professional journal and book literature on individual topics of the dissertation thesis.

Languages necessary to complete the course:

Slovak in combination with English (study of literature in English)

Notes:**Past grade distribution**

Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

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

Last change: 07.11.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-004/22	Course title: Forensic Anthropology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information no specification considering the doctoral degree (choice of methods - full-time, distance, combined)	
Number of credits: 3	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Individual subject evaluation is regarding the doctoral student's individual study plan and agreement between the supervisor and the doctoral student. A standard evaluation reflects the student's sufficient orientation in the issue. Requirements for successful subject completion are in concordance with the Study Regulations of the Faculty of Natural Sciences.	
Learning outcomes: Successful completion of Forensic Anthropology provides sufficient orientation in the field focusing on dissertation thesis following the specifications of individual topics. The acquired knowledge is essential for a theoretical aspect of knowledge and understanding to complete successfully a doctoral study in the Anthropology field and to support development and potential in a wide range of applied practice. Learning outcomes should be reflected in the student's overview at the level of methodological approaches to the issue.	
Class syllabus: Forensic Anthropology is an optional subject in the Anthropology program suitable for doctoral students with a dissertation thesis focused on forensic anthropology and the analysis of skeletal remains. The course focuses on theoretical and practical knowledge in the field of the legal status of an anthropologist in the current legislation (position of an anthropologist in forensic medicine, archeology, and expert activities), methods of personal identification of living persons and skeletal remains, determination of biological profile, biological age in living persons, the issue of reconstruction of the shape of the face based on the skull, the issue of dactyloscopic and cheiloscopic research, research of ear impressions and trichological examination.	
Recommended literature: No specification due to the character of the subject. Recommended literature is part of the doctoral student's individual study plan. Overview and essential references for seminar work on a given topic.	
Languages necessary to complete the course:	

Slovak in combination with English (study literature in English)	
Notes:	
Past grade distribution	
Total number of evaluated students: 4	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Radoslav Beňuš, PhD., doc. RNDr. Soňa Masnicová, PhD.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-002/22	Course title: Genetic Variability and Adaptability of Human Populations
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information no specification considering the doctoral degree (choice of methods - full-time, distance, combined)	
Number of credits: 5	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Individual subject evaluation is regarding the doctoral student's individual study plan and agreement between the supervisor and the doctoral student. A standard evaluation reflects the student's sufficient orientation in the issue. Requirements for successful subject completion are in concordance with the Study Regulations of the Faculty of Natural Sciences.	
Learning outcomes: Successful completion of subject provides sufficient orientation in the field focusing on the dissertation thesis following the specifications of individual topics. The acquired knowledge is essential for the theoretical aspect of knowledge and understanding to complete successfully a doctoral study in the Anthropology field and to support development and potential in a wide range of applied practice. Learning outcomes should be reflected in the student's overview at the level of methodological approaches to the issue.	
Class syllabus: Genetic Variability and Adaptability of Human Populations is a compulsory subject in the doctoral student's study activities in the Anthropology program. An individual character is regarding the specificity of each dissertation thesis. The main content is individually determined according to the aim of the dissertation thesis. The importance of the subject is especially in terms of understanding the essential theoretical and methodological aspects of the dissertation with an emphasis on self-study and consultation with the supervisor. Genetic Variability and Adaptability of Human Populations provides knowledge of non-pathological variability at the genetic level and the forms and levels of adaptation to the environment, and knowledge about ethnic anthropology, human ecology, ecopathology, and cultural and social specifics of adaptations.	
Recommended literature:	

No specification due to the character of the subject. Recommended literature is part of the doctoral student's individual study plan. Overview and essential references for seminar work on a given topic.

Languages necessary to complete the course:

Slovak in combination with English (study literature in English)

Notes:

Past grade distribution

Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: prof. Mgr. Viktor Černý, Dr.

Last change: 16.09.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-400/22				Course title: Grant CU or Grant SAS or equivalent grant			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 12							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-413/22				Course title: Intellectual Property Rights Document (originally AGJ)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 10							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-508/22				Course title: Other activities			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 1							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-501/22				Course title: P1 Pedagogical output as a whole (originally ACA, ACB, BCI, BCB)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 11							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-503/22				Course title: P2 Pedagogical output as a part (originally BCK)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 10							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-502/22				Course title: P2 Pedagogical output as part (originally ACC, ACD)			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 15							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-001/22	Course title: Physical Anthropology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information no specification considering the doctoral degree (choice of methods - full-time, distance, combined)	
Number of credits: 5	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Individual subject evaluation is regarding the doctoral student's individual study plan and agreement between the supervisor and the doctoral student. A standard evaluation reflects the student's sufficient orientation in the issue. Requirements for successful subject completion are in concordance with the Study Regulations of the Faculty of Natural Sciences.	
Learning outcomes: Successful completion of Physical Anthropology provides sufficient orientation in the field focusing on the dissertation thesis following the specifications of individual topics. The acquired knowledge is essential for the theoretical aspect of knowledge and understanding to complete successfully a doctoral study in the Anthropology field and to support development and potential in a wide range of applied practice. Learning outcomes should be reflected in the student's overview at the level of methodological approaches to the issue.	
Class syllabus: Physical Anthropology is a compulsory-optional subject in the doctoral student's study activities in the Anthropology program. An individual character is regarding the specificity of each dissertation thesis. The main content is individually determined according to the aim of the dissertation thesis. The importance of the subject is especially in terms of understanding and expanding the essential theoretical knowledge in the field of functional human biology, evolution and ontogenesis of humans and primates, human variability at the macro-and micro-level, in time and space, as well as factors influencing the variability.	
Recommended literature: No specification due to the character of the subject. Recommended literature is part of the doctoral student's individual study plan. Overview and essential references for seminar work on a given topic.	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	

Notes:	
Past grade distribution	
Total number of evaluated students: 7	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Radoslav Beňuš, PhD., prof. Mgr. Viktor Černý, Dr.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-009/22	Course title: Plant Metabolism
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information 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	
Number of credits: 3	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: 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.	
Learning outcomes: 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.	
Class syllabus: 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.	
Recommended literature: 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. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-008/22	Course title: Plant under Stress Conditions
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information 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	
Number of credits: 3	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: 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.	
Learning outcomes: 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.	
Class syllabus: 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.	
Recommended literature: 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. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KJ/N-DSSZ-026/22	Course title: Professional English 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Number of credits: 5	
Recommended semester: 1., 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Each course participant is required to achieve proficient knowledge and usage of the English grammar, professional vocabulary, reading and listening comprehension, writing professional texts and oral presentations. Credits will be awarded to students who will demonstrate active participation and deliver all set tasks and assignments successfully. The course participants will be awarded a pass or a fail upon course completion.	
Learning outcomes: Upon completion of the course, PhD students will effectively use the English language for professional purposes. They will proficiently comprehend targeted written and audio texts and present their viewpoints in required forms.	
Class syllabus: Theoretical and practical skills in professional written communication include appropriate structure of formal written texts (emails, application forms, personal statements, cover letters, abstracts, scientific articles, paraphrasing, using citations, citing sources, etc.) The course also focuses on theoretical explanation of correct delivery of oral texts, professional presentations and discussions. The course primary target is to facilitate PhD students with proficient usage of all the aspects of written and oral communication in various settings.	
Recommended literature: Armer, T.: Cambridge English for Scientists CD ROM Writing Professional English Team of authors: Test your Listening Skills: A Handbook for Science Doctoral students Team of authors: Test your Reading Skills: A Handbook for Science Doctoral students	
Languages necessary to complete the course: English	
Notes:	

Past grade distribution							
Total number of evaluated students: 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
Lecturers: Mgr. Aneta Barnes, RNDr. Tatiana Slováková, PhD.							
Last change: 03.10.2022							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-001/22	Course title: Seminar from Ecology and Evolution Biology for PhD students 1
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Educational activities: Type of activities: seminar Number of hours: 2 per week per level/semester: Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Presentation of the dissertation objectives in the context of current knowledge of issues related to the doctoral student's scientific project. The assessment is standard and reflects the sufficient orientation of the student in the issue. The conditions for successful completion of the course are in accordance with the Study Regulations of PriF UK.	
Learning outcomes: The aim of the seminar is a critical evaluation of the objectives of the dissertation thesis in the form of a presentation and subsequent discussion.	
Class syllabus: During the semester in the form of regular consultations with the supervisor and self-study, the student summarizes the goals of the dissertation thesis in the form of a presentation. After the presentation, the individual goals, methodological procedures, their advantages and disadvantages and possible alternative procedures will be discussed. Possible technical risks will also be discussed and possible solutions proposed. At the same time, students will participate in the organization of a series of lectures taking place at the department of Ecology and will be responsible for organizing seminars of Ecology.	
Recommended literature: Current professional journal literature on individual topics of the dissertation thesis	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	
Notes:	

Past grade distribution	
Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers: RNDr. Pavel Beracko, PhD., doc. RNDr. Tomáš Derka, PhD.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N_DBEK-002/22	Course title: Seminar from Ecology and Evolution Biology for PhD students 2
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Type of activities: seminar Number of hours: 2 per week per level/semester: Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements: Presentation of the dissertation objectives in the context of current knowledge of issues related to the doctoral student's scientific project. The assessment is standard and reflects the sufficient orientation of the student in the issue. The conditions for successful completion of the course are in accordance with the Study Regulations of PriF UK.	
Learning outcomes: The aim of the seminar is to specify the objectives of the dissertation thesis and to present preliminary results obtained in the first year of study. The form of the seminar is the student's presentation connected with the subsequent discussion.	
Class syllabus: During the semester in the form of regular consultations with the supervisor and self-study, the student summarizes the goals of the dissertation thesis in the form of a presentation. After the presentation, the individual goals, methodological procedures, their advantages and disadvantages and possible alternative procedures will be discussed. Possible technical risks will also be discussed and possible solutions proposed. At the same time, students will participate in the organization of a series of lectures taking place at the department of Ecology and will be responsible for organizing seminars of Ecology.	
Recommended literature: Current professional journal literature on individual topics of the dissertation thesis.	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	
Notes:	

Past grade distribution	
Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers: Mgr. Andrej Čerňanský, PhD., prof. RNDr. Jozef Klembara, DrSc.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KEk/N-DBEK-003/22	Course title: Seminar from Ecology and Evolution Biology for PhD students 3
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Type of activities: seminar Number of hours: 2 per week per level/semester: Form of the course: on-site learning	
Number of credits: 3	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements: Presentation of the dissertation objectives in the context of current knowledge of issues related to the doctoral student's scientific project. The assessment is standard and reflects the sufficient orientation of the student in the issue. The conditions for successful completion of the course are in accordance with the Study Regulations of PriF UK.	
Learning outcomes: The aim of the seminar is to specify the objectives of the dissertation thesis and to present preliminary results obtained in the first year of study. The form of the seminar is the student's presentation connected with the subsequent discussion.	
Class syllabus: During the semester in the form of regular consultations with the supervisor and self-study, the student summarizes the goals of the dissertation thesis in the form of a presentation. After the presentation, the individual goals, methodological procedures, their advantages and disadvantages and possible alternative procedures will be discussed. Possible technical risks will also be discussed and possible solutions proposed. At the same time, students will participate in the organization of a series of lectures taking place at the department of Ecology and will be responsible for organizing seminars of Ecology.	
Recommended literature: Current professional journal literature on individual topics of the dissertation thesis.	
Languages necessary to complete the course: Slovak in combination with English (study literature in English)	
Notes:	

Past grade distribution	
Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Eva Záhorská, PhD.	
Last change: 16.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KAn/N-DBAN-003/22	Course title: Special Applied Anthropology
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information no specification considering the doctoral degree (choice of methods - full-time, distance, combined)	
Number of credits: 3	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: Individual subject evaluation is regarding the doctoral student's individual study plan and agreement between the supervisor and the doctoral student. A standard evaluation reflects the student's sufficient orientation in the issue. Requirements for successful subject completion are in concordance with the Study Regulations of the Faculty of Natural Sciences.	
Learning outcomes: Successful completion of Special Applied Anthropology provides sufficient orientation in the field focusing on dissertation thesis following the specifications of individual topics. The acquired knowledge is essential for a theoretical aspect of knowledge and understanding to complete successfully a doctoral study in the Anthropology field and to support development and potential in a wide range of applied practice. Learning outcomes should be reflected in the student's overview at the level of methodological approaches to the issue.	
Class syllabus: Special Applied Anthropology is an optional subject in the doctoral student's study activities in the Anthropology program. A partially individual character is regarding the specificity of each dissertation thesis and is recommended to all doctoral students due to the wide range of applied anthropology. The main content is individually determined according to the aim of the dissertation thesis. According to the main aim of the dissertation thesis, a doctoral student focuses on a specific field within the subject, e.g. sports anthropology, clinical anthropology, ergonomic anthropology, auxology, and others of applied research. Despite the main focus of the dissertation, the student is acquainted with the theoretical assumptions and methodology in the above fields of applied research. The importance of the subject is especially in terms of understanding the essential theoretical and methodological aspects of the dissertation with an emphasis on self-study and consultation with the supervisor and a wide range of consultants. It participates in creating the professional potential of a doctoral student at a further (scientific) study level.	

Recommended literature:

No specification due to the character of the subject. Recommended literature is part of the doctoral student's individual study plan. Overview and essential references for seminar work on a given topic.

Languages necessary to complete the course:

Slovak in combination with English (study literature in English)

Notes:**Past grade distribution**

Total number of evaluated students: 7

ABS	NEABS
100,0	0,0

Lecturers: doc. RNDr. Radoslav Beňuš, PhD., prof. Mgr. Viktor Černý, Dr., RNDr. Eva Neščáková, CSc., doc. Mgr. Monika Okuliarová, PhD.

Last change: 16.09.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-506/22				Course title: Supervisor of the SSC contribution			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 4							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 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
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KFR/N-DBFR-007/22	Course title: Transport Processes in Plants
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information 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	
Number of credits: 3	
Recommended semester: 1.	
Educational level: III.	
Prerequisites:	
Course requirements: 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.	
Learning outcomes: 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.	
Class syllabus: 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.	
Recommended literature: 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.	
Languages necessary to complete the course: Slovak and English (the literature in English)	
Notes:	
Past grade distribution Total number of evaluated students: 13	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Zuzana Lukačová, PhD.	
Last change: 21.09.2022	
Approved by: prof. RNDr. Jozef Klembara, DrSc.	

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-404/22				Course title: V1 Scientific output as a whole - ESB monograph (originally AAA, ABA), individual authorship less than 3 AH			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-401/22			Course title: V1 Scientific output as a whole – ESB monograph (originally AAA, ABA), individual authorship share ≥ 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-405/22			Course title: V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship less than 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 20							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 8							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-402/22			Course title: V2 Scientific output as part - study in ESB or collection (originally AAB, ABA, ABB), individual authorship share ≥ 3 AH				
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 1							
A	ABS	B	C	D	E	FX	NEABS
0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027							
University: Comenius University Bratislava							
Faculty: Faculty of Natural Sciences							
Course ID: PriF/N-DSSZ-403/22				Course title: V3 Scientific output as a part - study in a journal (originally AAB, ABA, ABB), individual authorship ≥ 3 AH			
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning							
Number of credits: 30							
Recommended semester:							
Educational level: III.							
Prerequisites:							
Course requirements:							
Learning outcomes:							
Class syllabus:							
Recommended literature:							
Languages necessary to complete the course:							
Notes:							
Past grade distribution Total number of evaluated students: 0							
A	ABS	B	C	D	E	FX	NEABS
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers:							
Last change:							
Approved by: prof. RNDr. Jozef Klembara, DrSc.							

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

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

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KGP/N-DGPA-013/22	Course title: Štúdium oceánu, oceánografia a klíma
Educational activities: Type of activities: Number of hours: per week: per level/semester: Form of the course: on-site learning	
Type, volume, methods and workload of the student - additional information Form of Study: composite Number of contact hours: 15 hour course per week: 4 day course per level/semester: 15 course 15-hour course, takes place in full-time (or combined with distance) form through a combination of presentation, problem and cooperative method of teaching.	
Number of credits: 5	
Recommended semester: 2., 4., 6.	
Educational level: III.	
Prerequisites:	
Course requirements: Students solve problem tasks. The final evaluation consists of the evaluation of the test of practical problem tasks and basic theoretical knowledge. The award of the subject evaluation is conditioned by 100% of the submitted final assignments and the completed attendance (max. 2 justified absences). Course evaluation will be given after the course.	
Learning outcomes: The basic aim of the course is to understand how the present day ocean works. Students, who follows this course will be embracing the multidisciplinary of oceanology, that most problems cannot be sorted into physics, chemistry and ecology, giving the structure of this course. The students will understand the physics of present day circulation, learn how to measure chemical properties of seawater in theory, grasp principles of sampling in marine science (applicable in other geoscience), study marine ecology, learn the system science approach through ocean and climate coupling, meet practical problems in the form of case studies from coastal management to protecting coral reef.	
Class syllabus: The course follows a broad multidisciplinary approach to understand the present day oceans. The term Marine Sciences is used to leave room to discuss practicalities like sampling or monitoring techniques. The approach is three fold, based on the disciplines of physics, chemistry and biology, resulting the first three modules: Physical Oceanography, Chemical Oceanography, Marine Ecology, Climate change, Paleoceanography – proxy, Collecting data	
Recommended literature:	

Hönisch, Bärbel; Ridgwell, Andy; Schmidt, Daniela N.; Thomas, E.; et al. (2012). "The Geological Record of Ocean Acidification". *Science*. 335 (6072): 1058–1063.

Pinet, Paul R. (1996). *Invitation to Oceanography*. West Publishing Company. pp. 126, 134–135.

Stewart, R. H., 2008, *Our Ocean Planet: Oceanography in the 21st Century*. A New Oceanography Book for College Students. <http://oceanworld.tamu.edu/ocean401/>

Barnes, R. S. K., and Hughes, R. N., 1999, *Marine Ecology*: Blackwell Science, no. ISBN 0-86542-834-4, p. 1-286.

Paytan, A., 2006, *Marine Chemistry*. <http://ocean.stanford.edu/courses/bomc/cnotes.html>

Languages necessary to complete the course:

English language in combination with Slovak (most of the lectures through a foreign lecturer and study literature in English)

Notes:

Due to the limited capacity of the paleontological classroom, the exercises can take place in groups with a maximum of 15 students in each group.

Past grade distribution

Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. Mgr. Natália Hlavatá Hudáčková, PhD.

Last change: 18.09.2022

Approved by: prof. RNDr. Jozef Klembara, DrSc.