# **Course descriptions**

$T\Delta$	RI	$\mathbf{F}$	OE	CC	$\Gamma I A$	$\Gamma F N$	<b>JTS</b>
		/ '/ '	. , , ,		, , ,	1 2 1	V I '

1. N-bUGE-016/22 Agriculture and Forestry in a Geographical Perspective	4
2. 1-UMA-141/22 Algebra and Theoretical Arithmetic (0)	5
3. 1-UMA-112/22 Algebra and Theoretical Arithmetic (1)	7
4. 1-UMA-116/22 Algebra and Theoretical Arithmetic (2)	
5. 1-UMA-207/22 Algebra and Theoretical Arithmetic (3)	
6. N-bZFG-084/22 ArcGIS Online Course	
7. N-bUXX-002/22 Auxology and School Hygiene	12
8. N-bOBH-100/22 Bachelor's Thesis Defence (state exam)	
9. N-bUXX-040/22 Bachelor's Thesis Seminar (1)	
10. N-bUXX-041/22 Bachelor's Thesis Seminar (2)	
11. N-XXXX-005/21 Bioarchaeology	
12. N-bZFG-069/22 Biogeography	
13. N-bZFG-070/22 Biogeography – Practical Course	
14. N-bCAG-025/22 Chemistry Lab Practicals for Non-Chemists	
15. N-bCAG-024/22 Chemistry for Non-Chemistry Teachers	
16. N-bZFG-057/22 Climate Changes, Hazards and Risks	
17. N-bUXX-043/22 Cognitive Skills Development in Science Education.	
18. 1-UMA-124/22 Combinatorics.	
19. N-bEXX-038/22 Conservation Biology and Public Policy	
20. 1-UXX-344/22 Creation of Educational Materials for Students with Special Educational	2 .
Needs	25
21. N-bUGE-034/22 Current Problems of Applied Demography and Human Resources	20
Planning	27
22. 1-UXX-991/22 Defence of BSc Thesis (state exam)	
23. N-bUGE-057/22 Demographic Development: Selected Causes and Consequences	
24. N-bUGE-033/22 Development Trends in Geography of International Trade and Retailing	
25. N-bUGE-015/22 Didactics of Geography	
26. 1-UXX-237/22 Digital Educational Technologies for Descriptive Geometry	
27. 1-UXX-240/22 Digital Educational Technologies for Informatics	
28. 1-UXX-341/22 Digital Educational Technologies for Mathematics	
29. 1-UXX-239/22 Digital Educational Technologies for Physics	
30. N-bXDI-022/22 Digital Technologies in Education	
31. N-bXDI-023/22 Digital Technologies in Education 2	
32. N-bXDI-024/22 Digital Technologies in Education 3	
33. N-bXCJ-132/22 ESP 1/English for Specific Purposes.	
34. N-bXCJ-133/22 ESP 2/English for Specific Purposes	
35. N-bXCJ-134/22 ESP 3/English for Specific Purposes	
36. N-bXCJ-135/22 ESP 4/English for Specific Purposes	
37. N-bUGE-013/22 Economic Geography	
38. N-bUGE-019/22 Economics and Public Finance	40
39. 2-MPG-247/22 Effective Writing of Proffesional Texts	
40. N-bXDI-025/22 Environmental Ethics - Education for Sustainable Development	
41. N-bUGE-007/22 Essentials of Geology	
42. N-bUGE-035/22 Essentials of Political and Regional Geography for Teachers	
43. N-bZXX-006/22 Excursion from Physical Geography	
44. N-bUGE-012/22 Excursion from Physical and Human Geography	
45. N-bUGE-008/22 Exercises in Geology	5 /

N-bXCJ-136/22 Fachdeutsch in Naturwissenschaften 1	
N-bXCJ-137/22 Fachdeutsch in Naturwissenschaften 2	
N-bUGE-026/22 Fundamentals of Cartography and Geoinformatics	
1-UMA-951/22 Fundamentals of Mathematics (state exam)	
N-bUXX-037/22 General Didactics.	
N-XXXX-004/21 Genetics for everyone	
N-bUGE-031/22 Geography of Sports and Sport Events	
N-bUGE-015/22 Geography of Tourism and Its Current Problems	
N-bUGE-014/22 Geography of Transport and Logistics	
N-XXXX-001/21 Geography of the World in the 21 st century	
N-bUGE-029/22 Geoinformatics for Human Geography and Demography	
N-bGPA-119/22 Geology for Teachers.	
N-XXXX-007/21 Geology in Nutshell	
1-UMA-142/22 Geometry (0)	
1-UMA-107/15 Geometry (1)	
1-UMA-220/15 Geometry (2)	
1-UMA-301/22 Geometry (3)	
N-bZXX-136/22 Geomorphology	
N-bUGE-027/22 Geomorphology – Basic Practical Course	
N-XXXX-009/21 Global Environmental Issues.	
N-bXXX-001/19 Green University 1	
N-bXXX-002/19 Green University 2	
N-bUGE-036/22 Historical Geography for Teachers.	
N-bUGE-018/22 Human Settlements and Their Transformation - Geography of Settlement Development	
ban Development	
N-bXDI-004/22 Introduction to Philosophy (1)	
N-bXDI-005/22 Introduction to Philosophy (1)	
N-bUGE-035/22 Introduction to Spatial Statistical Analysis	
N-bUGE-032/22 Introduction to Spatial Statistical Analysis	
N-bEXX-127/22 Land Conservation and Use	
N-bXCJ-138/22 Latinčina	
N-bUGE-034/22 Macro-regions of the Earth.	
N-XXXX-008/21 Man as a part of the nature	
1-UMA-143/22 Mathematical Analysis (0).	
1-UMA-101/22 Mathematical Analysis (1)	
1-UMA-105/22 Mathematical Analysis (2)	
1-UMA-211/22 Mathematical Analysis (3)	
1-UMA-221/22 Mathematical Contests and Seminars (1)	
1-UMA-222/22 Mathematical Contests and Seminars (2)	
N-bUXX-001/22 Mathematics	
N-bUGE-024/22 Meteorology, Climatology and Hydrology	
N-bUGE-032/22 Mobility, Migration Flows and Their Management	
N-bXDI-014/22 Pedagogical Communication	
N-bZFG-065/22 Pedology and Pedogeography	
N-bZFG-066/22 Pedology and Pedogeography – Practical Course	
N-XXXX-011/21 Perspectives in Chemistry	
N-XXXX-010/22 Perspectives of Biochemistry	
N-bBXX-002/22 Perspectives of Current Biology	

94. N-bXTV-101/22 Physical Education 1	119
95. N-bXTV-102/22 Physical Education 2	
96. N-bXTV-103/22 Physical Education 3	121
97. N-bXTV-104/22 Physical Education 4	
98. N-bXTV-105/22 Physical Education 5	123
99. N-bXTV-106/22 Physical Education 6	
100. N-bZXX-012/22 Physical Geography	. 125
101. N-bUXX-002/22 Physics	
102. N-XXXX-003/21 Plants known and unknown	
103. N-bUGE-030/22 Power, Space and Conflict - Political Geography and Geopolitics	
Basics	128
104. N-XXXX-002/21 Practical Geography for Natural Scientists	129
105. N-XXXX-012/21 Practical Geology for Everyone	
106. 1-UMA-144/22 Probability Measure and Mathematical Statistics (0)	
107. 1-UMA-302/22 Probability Measure and Mathematical Statistics (1)	. 133
108. 1-UMA-309/22 Probability Measure and Mathematical Statistics (2)	. 135
109. N-bZRG-031/22 Protection of the World Natural and Cultural Heritage	
110. N-bUXX-038/22 Psychology for Teachers (1)	
111. N-bUXX-039/22 Psychology for Teachers (2)	
112. N-bZRG-013/22 Regional Geography Excursion (Foreign Countries)	
113. N-bUGE-033/22 Regions of Eurasia - Selected Issues	
114. 1-UMA-131/22 Revision of Advanced Secondary-school Mathematics	
115. N-bXDI-006/22 Rhetoric	
116. N-bXTV-110/22 River rafting.	145
117. N-bUXX-042/22 STEM Strategy in the Pre-service Teacher's Training	
118. N-bUXX-026/22 School Management.	
119. N-bUGE-036/22 Selected Chapters from Social and Cultural Anthropology	
120. N-bUGE-020/22 Selected Chapters from Sociology for Geographers	
121. N-bUGE-056/22 Society, Economy, Space	
122. N-bUGE-055/22 Statistics for Geography Teachers	
123. N-bUXX-206/22 Summer Physical-Education Training.	
124. N-bXTV-108/22 Summer Physical-Education Training.	
125. 1-UXX-152/22 Summer Sports Camp	
126. 1-UXX-122/22 Teacher Training - Practical Part	
127. 1-UXX-121/22 Teacher Training - Theoretical Part	
128. N-bUXX-023/22 Teaching Practice 1 (A)	
129. N-bUXX-024/22 Teaching Practice 1 (B)	
130. N-bXDI-012/22 Theoretical Foundations of Education.	
131. N-XXXX-006/21 Theory of species.	
132. N-bEXX-160/22 We are Moving towards Sustainability	
133. N-bUXX-201/22 Winter Physical-Education Training	
134. N-bXTV-107/22 Winter Physical-Education Training	
135. 1-UXX-151/22 Winter Sports Camp.	
136. N-bXTV-109/22 Ďumbier mountain hiking	

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-016/22

Agriculture and Forestry in a Geographical Perspective

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 4.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 6

A	ABS	В	С	D	Е	FX
66,67	0,0	16,67	16,67	0,0	0,0	0,0

**Lecturers:** doc. Mgr. Vladimír Bačík, PhD., prof. RNDr. Ján Buček, CSc., RNDr. Michal Klobučník, PhD., RNDr. Martin Plešivčák, PhD., Mgr. Alena Rochovská, PhD., Mgr. Lucia Vršanská, PhD.

Last change: 09.08.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-141/22 | Algebra and Theoretical Arithmetic (0)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

Continuous assessment: Homework

Final assessment: Exam

Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx < 60%

Scale of assessment (preliminary/final): 50/50

### **Learning outcomes:**

Acquire practical skills to solve tasks involving generalization, mathematize a verbal task, and work with general expressions. The ability to solve tasks from the theory of numbers and different types of equations, inequalities and their systems. Familiarize yourself with complex numbers.

### Class syllabus:

Numbers, variables and expressions. Elementary number theory. Equations, inequalities and their systems. Complex numbers.

### **Recommended literature:**

textbooks of Mathematics of lower and upper secondary school

Seminár z matematiky : 1. časť / Zbyněk Kubáček, Ján Žabka Bratislava : Mapa Slovakia Plus

s.r.o., 2017

Seminár z matematiky : 2. časť / Zbyněk Kubáček, Ján Žabka Bratislava : Mapa Slovakia Plus

s.r.o., 2018

Seminár z matematiky : 3. časť / Zbyněk Kubáček, Ján Žabka Bratislava : Mapa Slovakia Plus

s.r.o., 2020

### Languages necessary to complete the course:

Slovak, English

#### **Notes:**

The course is primarily intended for teacher training students; students of other programs can enroll in it only with the consent of their guarantor.

Past grade distribution Total number of evaluated students: 35							
Total number o	T evaluated stude	IIIS. 33		1			
A	В	C	D	Е	FX		
40,0	17,14	20,0	2,86	5,71	14,29		
Lecturers: Mgr. Emília Mit'ková, PhD.							
<b>Last change:</b> 17.03.2022							
Approved by:							

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KAG/1-UMA-112/22 | Algebra and Theoretical Arithmetic (1)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

Recommended semester: 2.

**Educational level:** I.

**Prerequisites:** 

### **Course requirements:**

Preliminary assessment: homework, test.

Final assessment: Exam in written and oral form

Final assessment examination (A 90%, B 80%, C 70%, D 60%, E 50%, Fx < 50 %) Scale of assessment (preliminary/final): Weight of the course work / exam: 40/60

### **Learning outcomes:**

Students will become familiar with the basic notions and methods of linear algebra.

#### **Class syllabus:**

1. Systems of linear equations 2. Vector spaces 3. Linear subspaces 4. Standard inner product 5. Linear maps and their matrix representations 6. Matrix algebra 7. Regular matrices and determinant

### **Recommended literature:**

### Languages necessary to complete the course:

### **Notes:**

### Past grade distribution

Total number of evaluated students: 209

A	В	C	D	Е	FX
23,92	22,49	16,27	15,79	14,83	6,7

Lecturers: prof. RNDr. Pavol Zlatoš, PhD., Mgr. Tomáš Rusin, PhD.

**Last change:** 13.02.2023

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KAG/1-UMA-116/22 | Algebra and Theoretical Arithmetic (2)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

**Recommended semester: 5.** 

Educational level: D, I.

**Prerequisites:** 

### **Course requirements:**

Preliminary assessment: homework (20%), written tests (40%)

Final assessment: oral exam (40%)

Grading: A 90%, B 80%, C 70%, D 60%, E 50%

### **Learning outcomes:**

Students master the basics of divisibility theory in the field of integers and its applications and will be able to actively use this knowledge to solve various problems. Furthermore, they will control the expression of real numbers using g-adic developments and selected criteria for the rationality (irrationality) of real numbers.

### Class syllabus:

Divisibility of integers, greatest common divisor, Euclidean algorithm, least common multiple. Prime numbers, decomposition into the product of prime numbers. Congruences, Euler's theorem and its applications, Lagrange's theorem. Number systems and divisibility criteria. Selected arithmetic functions. Rational and irrational numbers. G-adic development of real numbers. Criteria of rationality of real numbers.

### **Recommended literature:**

### Languages necessary to complete the course:

### **Notes:**

### Past grade distribution

Total number of evaluated students: 180

A	В	С	D	Е	FX
41,11	25,56	20,56	7,78	1,67	3,33

Lecturers: prof. RNDr. Pavol Zlatoš, PhD., RNDr. Jana Chalmovianská, PhD.

Last change: 21.06.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KAG/1-UMA-207/22 | Algebra and Theoretical Arithmetic (3)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 6.

**Educational level:** I.

### **Prerequisites:**

### **Course requirements:**

Continuous evaluation: written exam (50 p.)

Final exam: oral (50 p.)

Grades: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 50/50

### Learning outcomes:

Knowledge and use of basic notions, characteristics and methods of ring of polynomials and divisibility in ring of polynomials over field for solving tasks related to algebraic equations, for example for examining characteristics of polynomial roots. Gaining corresponding relevant computation skills and using specific methods for finging roots of polynomial.

### Class syllabus:

Rings, integral domains and fields, subrings and homomorphisms of rings, ring of polynomials over an integral domain, roots of polynomials, divisibility, Remainder theorem, Horner scheme, Euclidean division algorithm for computing the greatest common divisor of polynomials. Fundamental theorem of Algebra, polynomials over Q, R and C. Derivate of of a polynomial, multiple roots, Taylor expansion of a polynomial.

### **Recommended literature:**

Algebra a teoretická aritmetika 1: Tibor Katriňák a kolektív. Bratislava: Univerzita Komenského 2002

Prehl'ad modernej algebry: Garrette Birkhoff, Saunders Mac Lane. Preložil Štefan Znám, Jaroslav Smítal . Bratislava: Alfa, 1979

Lecture notes published on the web site of the course.

### Languages necessary to complete the course:

slovak, english

Notes:

Past grade distribution Total number of evaluated students: 125							
A	В	С	D	Е	FX		
67,2 18,4 6,4 5,6 1,6 0,8							
Lecturers: prof. RNDr. Pavol Zlatoš, PhD., RNDr. Jana Tomanová, CSc.							

**Last change:** 19.06.2022

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZFG-084/22 **ArcGIS Online Course Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 15 C Α ABS В D E FX 100,0 0,0 0,0 0,0 0,0 0,00,0Lecturers: Mgr. Michal Druga, PhD. Last change: 28.09.2022

Strana: 11

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KAn/N-bUXX-002/22 Auxology and School Hygiene **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 67 Α В  $\mathbf{C}$ D E FX 98,51 0,0 0,0 0,0 0,0 1,49 Lecturers: Mgr. Silvia Bodoriková, PhD., RNDr. Eva Neščáková, CSc. Last change: 24.07.2022 Approved by:

### STATE EXAM DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:
PriF.KDPP/N-bOBH-100/22 Bachelor's Thesis Defence

Number of credits: 8

Educational level: I.

State exam syllabus:

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bUXX-040/22

Bachelor's Thesis Seminar (1)

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 5.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

### Past grade distribution

Total number of evaluated students: 51

A	ABS	В	С	D	Е	FX
70,59	0,0	9,8	5,88	5,88	0,0	7,84

Lecturers: prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., doc. RNDr. Štefan Karolčík, PhD., doc. PaedDr. Elena Čipková, PhD., RNDr. Jana Ciceková, PhD., PaedDr. Anna Drozdíková, PhD., PhDr. ThLic. Peter Ikhardt, PhD., Mgr. Lenka Šikulíncová, PhD., Mgr. Milica Križanová, PhD., RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., RNDr. Soňa Nagyová, PhD., Mgr. Štefan Zolcer, PhD., doc. Mgr. Marcel Horňák, PhD., doc. RNDr. Daniel Gurňák, PhD., RNDr. Katarína Danielová, PhD., RNDr. Ivan Ružek, PhD., doc. RNDr. Jozef Tatiersky, PhD., RNDr. Jana Chrappová, PhD., doc. Ing. Mária Mečiarová, PhD., doc. RNDr. Katarína Pavličková, CSc., doc. Mgr. Soňa Jančovičová, PhD., doc. RNDr. Zlatica Országhová, CSc., doc. RNDr. Marek Vaculík, PhD., Mgr. Peter Štefánik, PhD., doc. RNDr. Eva Záhorská, PhD., PhDr. Michael Fuchs

Last change: 01.08.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

PriF.KDPP/N-bUXX-041/22 Bachelor's Thesis Seminar (2)

**Course title:** 

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 41

A	ABS	В	С	D	Е	FX
75,61	0,0	17,07	4,88	2,44	0,0	0,0

Lecturers: prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., doc. RNDr. Štefan Karolčík, PhD., doc. PaedDr. Elena Čipková, PhD., RNDr. Jana Ciceková, PhD., PaedDr. Anna Drozdíková, PhD., PhDr. ThLic. Peter Ikhardt, PhD., Mgr. Lenka Šikulíncová, PhD., Mgr. Milica Križanová, PhD., RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., RNDr. Soňa Nagyová, PhD., Mgr. Štefan Zolcer, PhD., doc. Mgr. Marcel Horňák, PhD., doc. RNDr. Daniel Gurňák, PhD., RNDr. Katarína Danielová, PhD., RNDr. Ivan Ružek, PhD., doc. RNDr. Jozef Tatiersky, PhD., RNDr. Jana Chrappová, PhD., doc. Ing. Mária Mečiarová, PhD., doc. RNDr. Katarína Pavličková, CSc., doc. Mgr. Soňa Jančovičová, PhD., doc. RNDr. Zlatica Országhová, CSc., doc. RNDr. Marek Vaculík, PhD., Mgr. Peter Štefánik, PhD., doc. RNDr. Eva Záhorská, PhD., Mgr. Rastislav Cákoci, PhD., PhDr. Michael Fuchs

Last change: 01.08.2022

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KAn/N-XXXX-005/21 Bioarchaeology **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 3 **Recommended semester:** 1., 3., 5. **Educational level:** I., II. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course:

Notes:

Past grade distribution

Total number of evaluated students: 930

A	В	С	D	Е	FX
73,01	12,37	6,67	3,33	0,97	3,66

Lecturers: doc. RNDr. Radoslav Beňuš, PhD., Mgr. Silvia Bodoriková, PhD., prof. Mgr. Viktor

Černý, Dr.

**Last change:** 07.11.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZFG-069/22 Biogeography **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 46 В C Α ABS D E FX 8,7 0,0 13,04 13,04 8,7 19,57 36,96 Lecturers: RNDr. Ivan Ružek, PhD. Last change: 26.09.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZFG-070/22 Biogeography - Practical Course **Educational activities:** Type of activities: practicals **Number of hours:** per week: 1 per level/semester: 14 Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 19 C Α ABS В D E FX 0,0 15,79 5,26 21,05 5,26 5,26 47,37

Lecturers: RNDr. Ivan Ružek, PhD.

**Last change:** 26.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KAgCh/N-bCAG-025/22 Chemistry Lab Practicals for Non-Chemists **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 1., 2.. **Educational level:** I. **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 C A В D E FX 0,0 0,0 0,0 0,0 0,0 0,0Lecturers: RNDr. Jana Chrappová, PhD., Mgr. Dominika Lacušková Last change: 14.09.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KAgCh/N-bCAG-024/22 | Chemistry for Non-Chemistry Teachers

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 1., 2..

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 15

A	В	С	D	Е	FX
0,0	20,0	13,33	26,67	13,33	26,67

Lecturers: doc. RNDr. Jozef Tatiersky, PhD., RNDr. Jana Chrappová, PhD., Mgr. Dominika

Lacušková

Last change: 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bZFG-057/22

Climate Changes, Hazards and Risks

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 55

A	ABS	В	С	D	Е	FX
0,0	0,0	7,27	16,36	36,36	36,36	3,64

Lecturers: RNDr. Ivan Ružek, PhD., doc. RNDr. Milan Trizna, PhD., doc. Ing. Peter Pišút, PhD.,

RNDr. Marián Jenčo, PhD.

**Last change:** 28.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bUXX-043/22 Cognitive Skills Development in Science Education **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 3., 5. **Educational level:** I. **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 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Milica Križanová, PhD. Last change: 07.09.2022

Strana: 22

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KAG/1-UMA-124/22

Combinatorics

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

**Recommended semester:** 1.

**Educational level:** D, I.

**Prerequisites:** 

### **Course requirements:**

Continuous evaluation: homework Final examination: written exam

Grades: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 50/50

### **Learning outcomes:**

Gaining comprehensive overview of basic combinatorial problems and skills to solve them.

### Class syllabus:

Basic combinatorial tools, permutations, combinations, binomila coeficients and Pascal triangle, binomial an multinomial theorem, combinatorial identities, principle of inclusion and exlusion, Dirichlet principle.

### **Recommended literature:**

Kapitoly z diskrétní matematiky: Jiří Matoušek, Jaroslav Nešetřil. Praha: Karolinum, 2009 Kombinatorika a teória grafov: Martin Knor. Bratislava: Vydavateľstvo UK, 2000 Lecture notes.

### Languages necessary to complete the course:

slovak, english

**Notes:** 

### Past grade distribution

Total number of evaluated students: 254

A	В	С	D	Е	FX
38,19	17,32	13,78	12,99	14,57	3,15

Lecturers: PaedDr. Peter Vankúš, PhD., RNDr. Jana Tomanová, CSc.

**Last change:** 12.03.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KEM/N-bEXX-038/22 Conservation Biology and Public Policy **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 2. Educational level:** I. **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 Α В  $\mathbf{C}$ D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Marta Nevřelová, PhD., Mgr. Blanka Lehotská, PhD. Last change: 19.09.2022

Strana: 24

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KDMFI/1-UXX-344/22

Creation of Educational Materials for Students with Special

**Educational Needs** 

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 5.** 

**Educational level:** I., II.

### **Prerequisites:**

### **Course requirements:**

Interim evaluation: Active participation, problem solving, participation in discussions (90%), project elaboration (10%)

An exam: -

Indicative evaluation scale: e.g. A 90%, B 80%, C 70%, D 65%, E 60%

### **Learning outcomes:**

The student:

- gain first-hand experience of how people with SEN perceive the world and how they work with a computer and a web browser
- get acquainted with the problems of users of alternative software and hardware
- learns about problem elements and aspects of the site
- get acquainted with examples of good and bad practice
- gain experience in testing the accessibility of electronic documents

### Class syllabus:

- Accessibility of electronic document.
- Visually impaired users.
- Hearing impaired users.
- Users with physical disabilities.
- Users with cognitive impairments.
- Users of alternative devices.
- Accessibility of textual content
- Accessibility of multimedia content
- Accessibility of dynamic content
- Accessibility testing methods

### **Recommended literature:**

- own electronic texts published on the website, resp. in the Moodle environment
- Špinar, D.: We create accessible websites; Zoner Press, 2004, 360 p.

- Bezáková, D. et al .: Data Creation and Presentation, Bratislava: Center for Scientific and Technical Information of the Slovak Republic, 2020, ISBN 978-80-89965-67-0.

# Languages necessary to complete the course:

Slovak, English

**Notes:** 

## Past grade distribution

Total number of evaluated students: 0

A	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Ľudmila Jašková, PhD.

Last change: 20.06.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEGD/N-bUGE-034/22

Current Problems of Applied Demography and Human Resources

Planning

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 1 per level/semester: 28 / 14

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 6.

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Branislav Bleha, PhD.

Last change: 09.08.2022

Approved by:

#### STATE EXAM DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UXX-991/22 Defence of BSc Thesis

**Number of credits: 8** 

**Educational level:** I.

### **Course requirements:**

Examination: state examination

Scale of assessment (preliminary/final): 0/100

### Learning outcomes:

When designing the bachelor's thesis, the student is able to demonstrate the ability to work creatively in the field of study in which he completed the study program. The student is able to demonstrate adequate knowledge of the issue and apply their skills in the collection, interpretation and processing of basic literature, or its application in practice or is able to solve a partial task related to the student's focus.

### Class syllabus:

Course contents:

- 1. Contribution of the final thesis for the given field of study applied in the collection, interpretation and processing of basic professional literature, or the extent to which the student has mastered the application of theoretical principles in practice and whether the hypotheses presented in the work are verifiable;
- 2. Originality of the thesis (the final thesis must not have the character of a plagiarism, must not infringe the copyrights of other authors), part of the documentation for the defense of the final thesis as a subject of state examination is the protocol of originality from the central register.
- 3. Correctness and correctness of citation of used information sources, research results of other authors and author groups, correctness of description of methods and working procedures of other authors or author groups;
- 4. Compliance of the structure of the final work with the prescribed composition defined by Internal Regulation no. 12/2013;
- 5. Respecting the recommended scope of the final thesis (the recommended scope of the bachelor's thesis is usually 30 40 standard pages 54,000 to 72,000 characters, including spaces), the adequacy of the scope of the thesis is assessed by its supervisor;
- 6. Linguistic and stylistic level of work and formal arrangement;
- 7. The method and form of the defense of the final thesis and the student's ability to adequately respond to comments and questions in the opinions of the supervisor and the opponent.
- 8. In the teaching of art-educational subjects, the final work and its defense may also include the presentation of artistic outputs and performances.

### State exam syllabus:

### **Recommended literature:**

according to the topic of the bachelor thesis

### Languages necessary to complete the course:

Slovak, English

<b>Last change:</b> 22.06.2022	
Approved by:	

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEGD/N-bUGE-057/22

Demographic Development: Selected Causes and Consequences

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

Number of credits: 3

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 37

A	ABS	В	С	D	Е	FX
0,0	0,0	8,11	37,84	45,95	0,0	8,11

Lecturers: prof. RNDr. Branislav Bleha, PhD., Mgr. Marcela Káčerová, PhD., Mgr. Juraj Majo, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KEGD/N-bUGE-033/22 Development Trends in Geography of International Trade and

Retailing

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester: 5.** 

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	0,0	0,0	100,0	0,0	0,0

Lecturers: Mgr. Ingrid Bučeková, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bUGE-015/22

Didactics of Geography

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 37

A	ABS	В	С	D	Е	FX
18,92	0,0	37,84	18,92	8,11	16,22	0,0

Lecturers: doc. RNDr. Štefan Karolčík, PhD., RNDr. Peter Likavský, CSc.

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KDMFI+KAG/1-

UXX-237/22

Digital Educational Technologies for Descriptive Geometry

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 5.** 

**Educational level:** I., II.

**Prerequisites:** FMFI.KDMFI/1-UXX-137/22 - Digital Literacy

### **Course requirements:**

The student can obtain 100% of the grade during the semester. The student prepares assignments of various types in various digital tools, he / she needs at least half of the available points to successfully obtain the final grading.

Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), Fx (50-0).

Scale of assessment (preliminary/final): Preliminary assessment 100% (homework assignments) / 0% final exam

### **Learning outcomes:**

The course graduate:

- 1. will learn to practically demonstrate work with projection methods of both the parallel and central projection via selected graphic digital tools
- 2. will be able to practically create a digital presentation of static and dynamic sketches of projections of three-dimensional objects into a suitably chosen projection plane (projections, anaglyphs, animations)
- 3. will work practically to incorporate basic norms and standards of technical drawing in suitable software tools while creating projections of three-dimensional objects into the chosen projection plane by the given imaging method
- 4. using specific software tools, they will practically learn the difference between theoretical and numerical model of foundational concepts and objects in the field of geometry using specific software tools, consisting of conceptually more complex geometric models and their visualizations

#### Class syllabus:

- 1. useful digital tools for projections imaging (CAD systems, GeoGebra, Maxima, other online tools)
- 2. static and dynamic digital presentation of concepts from imaging methods of parallel and central projection (digital construction of linear perspective, Monge's projection, military and cavalry axonometry)
- 3. technical drawing, its norms and standards and their use in professional teaching practice

### **Recommended literature:**

1. electronic texts published on the subject's website

# Languages necessary to complete the course:

Slovak, English

**Notes:** 

# Past grade distribution

Total number of evaluated students: 86

	A	В	С	D	Е	FX
76	5,74	13,95	5,81	2,33	1,16	0,0

Lecturers: RNDr. Martina Bátorová, PhD., Ing. Martin Čavarga

**Last change:** 20.06.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UXX-240/22 | Digital Educational Technologies for Informatics

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I., II.

**Prerequisites:** 

### **Course requirements:**

Continuous assessment: The student can get 50% points for active participation in seminars and another 50% points for completing tasks.

Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100 / 0

### **Learning outcomes:**

The student:

- uses modern DT to plan, prepare and implement its future teaching
- knows suitable digital tools for teaching informatics, can search for them and critically evaluate them
- analyzes educational software for teaching informatics, critically evaluates it and decides on its inclusion in the teaching process
- assesses and decides why, when, where and how DT will contribute to the achievement of educational goals
- is able to manage classroom teaching so that teamwork with the support of DT is used for the benefit of the cognitive process of students,
- is able to communicate with colleagues and students with the help of DT
- uses DT in pupil assessment
- DT also uses to collect and analyze data on students' educational progress, to interpret their results, etc.

### Class syllabus:

- The future teacher of informatics and his further education in various areas of informatics.
- Search, use and evaluation of currently available digital tools to support computer science teaching.
- Future computer science teacher as an author of sample solutions to programming problems.
- Preparing the future teacher for the need and updating the DT he uses for teaching.
- Adaptation of the future teacher to new versions of programs for various areas of informatics.
- Future computer science teacher as the author of new tasks for primary and secondary school students.

- Own creative work of a computer science teacher as an author of digital teaching materials for teaching computer science.
- Computer science teacher as a user and didactics of various programming microworlds.
- Advanced techniques for programming environments to teach the areas of Procedures, Problem Solving, Algorithmic Thinking.
- Digital systems suitable for teaching management, communication with students and parents.

### **Recommended literature:**

Own electronic texts published on the website, resp. in the Moodle environment

### Languages necessary to complete the course:

Slovak

### **Notes:**

### Past grade distribution

Total number of evaluated students: 91

A	В	С	D	Е	FX
78,02	13,19	5,49	2,2	1,1	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 20.06.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KDMFI/1-UXX-341/22

Digital Educational Technologies for Mathematics

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I., II.

Prerequisites: FMFI.KDMFI/1-UXX-137/22 - Digital Literacy

**Course requirements:** 

Continuous assessment: tasks

Indicative rating scale: A 92%, B 84%, C 76%, D 68%, E 60%

Scale of assessment (preliminary/final): 100/0

## **Learning outcomes:**

The student uses modern digital technologies (DT) to plan, prepare and implement their future teaching (in the relevant subject) and to support the achievement of their educational goals. They has an overview of suitable educational resources for the subject, can search, select and critically evaluate them. They also has an overview of DTs that facilitate the assessment and recording of the cognitive process and educational progress of their students. The student:

- analyzes multimedia educational software from the point of view of the given approbation subject, critically decides on its inclusion in the teaching process,
- critically evaluates educational and support software and other digital content, is able to formulate requirements for educational software and digital content,
- assesses and decides why, when, where and how DT will contribute to the achievement of its educational goals,
- has an overview of how:
- use DT in an appropriate and productive way to help achieve the educational objectives of its subject,
- manage classroom teaching so that teamwork with DT support is used to benefit students' cognitive process,
- communicate with colleagues or pupils through appropriate and effective tools to achieve their teaching objectives,
- use modern DT in evaluating student education,
- use DT to collect and analyze data on students' educational progress, to interpret their results, etc.

#### Class syllabus:

• Analysis, evaluation and assessment of educational software and digital educational content for the relevant subject.

- Digital technologies usable in the design, preparation, implementation and analysis of the teaching process of the relevant subject.
- Different forms, means and tools of communication in the educational process and in the school environment (eg between school and parents).

# **Recommended literature:**

Relevant literature for the approbation subject.

# Languages necessary to complete the course:

slovak, english

# **Notes:**

# Past grade distribution

Total number of evaluated students: 49

A	В	С	D	Е	FX
63,27	12,24	10,2	8,16	2,04	4,08

Lecturers: RNDr. Monika Dillingerová, PhD.

**Last change:** 22.06.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UXX-239/22 | Digital Educational Technologies for Physics

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 5.** 

**Educational level:** I., II.

**Prerequisites:** 

#### **Course requirements:**

Interim evaluation: Active participation; during the semester students develop a project (digital model).

Final evaluation: Presentation of the created digital model and a demonstration of its practical application in teaching.

Indicative rating scale: A = (90, 100]%, B = (80, 90]%, C = (70, 80]%, D: (60, 70]%, E: (50, 60]%). Scale of assessment (preliminary/final): 20 / 80

#### **Learning outcomes:**

Student by completing the course:

- acquire basic knowledge and skills for creating activities with a focus on the digital model,
- be able to make meaningful use of digital technologies in modeling different task situations,
- will be able to plan student activities leading to the creation of digital models,
- will be able to develop interdisciplinary relationships between mathematics, physics and computer science.

## Class syllabus:

- basic orientation in the PPPL software environment (computer aided science laboratory)
- dynamic modeling of physical phenomena
- creation of a simple model body fall
- extension of a simple model with environmental resistance, controls, graphic output
- modeling of oblique litter with environmental resistance
- application of the created model in solving physical problems and situations from everyday life
- case studies in school physics (in terms of models and modeling)
- creation of own model according to the student's choice

#### **Recommended literature:**

The teacher's own electronic texts published on the website, resp. in the Moodle environment.

# Languages necessary to complete the course:

Slovak

Notes:		,					
Past grade distribution Total number of evaluated students: 88							
A	Е	FX					
76,14	14,77	5,68	2,27	1,14	0,0		
Lecturers: PaedDr. Lukáš Bartošovič, PhD., doc. RNDr. Peter Demkanin, PhD.							
Last change: 22	2.06.2022			_			

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bXDI-022/22

Digital Technologies in Education

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 65

A	ABS	В	С	D	Е	FX
53,85	0,0	18,46	12,31	4,62	3,08	7,69

Lecturers: doc. RNDr. Štefan Karolčík, PhD., RNDr. Henrieta Mázorová, PhD., Mgr. Milica

Križanová, PhD., Mgr. Lenka Šikulíncová, PhD.

Last change: 01.08.2022

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bXDI-023/22 Digital Technologies in Education 2 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 38 Α В  $\mathbf{C}$ D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: RNDr. Henrieta Mázorová, PhD., Mgr. Lenka Šikulíncová, PhD. Last change: 01.08.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bXDI-024/22 Digital Technologies in Education 3 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 5. Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 6 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: RNDr. Henrieta Mázorová, PhD., Mgr. Milica Križanová, PhD. Last change: 01.08.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KJ/N-bXCJ-132/22

ESP 1/English for Specific Purposes

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 204

A	В	С	D	Е	FX
67,65	15,69	8,82	0,98	2,45	4,41

**Lecturers:** PhDr. Jarmila Cihová, PhD., PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., PhDr. Oľga Pažitková, CSc., RNDr. Tatiana Slováková, PhD., Mgr. Simona Tomášková, PhD.

**Last change:** 26.09.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KJ/N-bXCJ-133/22

ESP 2/English for Specific Purposes

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 4.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 151

A	В	С	D	Е	FX
84,11	13,91	1,32	0,66	0,0	0,0

**Lecturers:** PhDr. Jarmila Cihová, PhD., PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., PhDr. Oľga Pažitková, CSc., RNDr. Tatiana Slováková, PhD., Mgr. Simona Tomášková, PhD.

**Last change:** 26.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KJ/N-bXCJ-134/22

ESP 3/English for Specific Purposes

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 173

A	В	С	D	Е	FX
76,88	15,03	4,05	0,0	1,16	2,89

**Lecturers:** PhDr. Jarmila Cihová, PhD., PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., PhDr. Oľga Pažitková, CSc., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KJ/N-bXCJ-135/22

ESP 4/English for Specific Purposes

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 129

A	В	С	D	Е	FX
93,8	5,43	0,78	0,0	0,0	0,0

**Lecturers:** PhDr. Jarmila Cihová, PhD., PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., PhDr. Oľga Pažitková, CSc., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KEGD/N-bUGE-013/22 **Economic Geography Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 2. Educational level:** I. **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 C Α ABS В D E FX 80,0 0,0 0,0 0,0 0,0 0,020,0

Lecturers: doc. Mgr. Marcel Horňák, PhD., Mgr. Jaroslav Rusnák, PhD.

Last change: 09.08.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEGD/N-bUGE-019/22

**Economics and Public Finance** 

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 3

A	ABS	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	33,33	66,67

Lecturers: prof. RNDr. Ján Buček, CSc., RNDr. Martin Plešivčák, PhD.

**Last change:** 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KAG/2-MPG-247/22 Effective Writing of Proffesional Texts

**Educational activities:** 

Type of activities: course

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 3

**Recommended semester: 5.** 

**Educational level:** I., II.

#### **Prerequisites:**

#### **Course requirements:**

The student can obtain 100% of the grade during the semester. The student prepares assignments of various types in various digital tools, he / she needs at least half of the available points to successfully obtain the final grading.

Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), Fx (50-0).

Scale of assessment (preliminary/final): Preliminary assessment 100% (homework assignments) / 0% final exam

#### **Learning outcomes:**

- 1. The graduate will acquire advanced skills needed to work in the LaTeX typographic system.
- 2. The graduate will acquire basic skills in the computer algebra system wxMaxima. Learns the basic structures and procedures of the environment's language, learns to write simple scripts and generate visualizations of basic mathematical and geometric concepts.
- 3. The graduate will get acquainted with the methodological procedures of writing longer professional texts, from the stage of preparation to the finalization of the text.

#### Class syllabus:

- 1. LaTeX: Typing mathematical formulae in LaTeX. Drafting texts in LaTeX. Additional document settings in LaTeX, more advanced typesetting concepts (document settings, templates, custom environment definitions, etc.). LaTeX presentations.
- 2. wxMaxima: Introduction to the environment. Setup and control. Basic programming concepts (variable, cycle, condition, data structures). Basic mathematical concepts and structures (matrices, equations, maps). Rendering and visualization in plane and space (polygons, curves, surfaces). Animation and visualization of processes.
- 3. Methodology of writing professional texts: basic thought procedures for creating longer professional texts.

#### **Recommended literature:**

Electronic texts, scripts and other materials published on the teacher's website.

https://www.latex-project.org/help/documentation/

https://maxima.sourceforge.io/documentation.html

<b>Languages nec</b> Slovak, English	essary to compl	ete the course:			
Notes:					
Past grade dist Total number o	ribution f evaluated stude	ents: 7			
A	В	С	D	Е	FX
42,86	42,86	0,0	0,0	14,29	0,0
Lecturers: RN	Dr. Martina Báto	rová, PhD., doc.	RNDr. Andrej F	erko, PhD.	
Last change: 2	0.06.2022				
Approved by:					

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KDPP/N-bXDI-025/22

Environmental Ethics - Education for Sustainable Development

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I.

**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

A	В	С	D	Е	FX
50,0	0,0	0,0	50,0	0,0	0,0

**Lecturers:** Mgr. Štefan Zolcer, PhD., RNDr. Jana Ciceková, PhD., doc. RNDr. Štefan Karolčík, PhD.

Last change: 22.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KGP/N-bUGE-007/22 **Essentials of Geology Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 2. Educational level:** I. **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 C Α ABS В D E FX 0,0 0,0 0,0 0,0 0,0 0,00,0

Lecturers: doc. RNDr. Daniel Pivko, PhD.

**Last change:** 06.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N-bUGE-035/22 | Essentials of Political and Regional Geography for Teachers

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 2.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 36

A	ABS	В	С	D	Е	FX
19,44	0,0	25,0	5,56	5,56	0,0	44,44

Lecturers: doc. RNDr. Daniel Gurňák, PhD.

**Last change:** 23.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZXX-006/22 **Excursion from Physical Geography Educational activities:** Type of activities: excursion **Number of hours:** per week: per level/semester: 5d Form of the course: on-site learning Number of credits: 2 **Recommended semester: 2. Educational level:** I. **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 C Α ABS В D E FX 0,0 0,0 0,0 0,0 0,0 0,00,0Lecturers: RNDr. Ivan Ružek, PhD. Last change: 28.09.2022

Strana: 55

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bUGE-012/22

Excursion from Physical and Human Geography

**Educational activities:** 

Type of activities: excursion

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 4.

**Educational level:** I.

**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	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Ivan Ružek, PhD., doc. Mgr. Marcel Horňák, PhD., Mgr. Juraj Majo, PhD.

Last change: 28.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KGP/N-bUGE-008/22 **Exercises in Geology Educational activities:** Type of activities: practicals Number of hours: per week: 1 per level/semester: 14 Form of the course: on-site learning Number of credits: 1 **Recommended semester: 2. Educational level:** I. **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  $\mathbf{C}$ Α ABS В D E FX 0,0 0,0 0,0 0,0 0,0 0,00,0Lecturers: doc. RNDr. Daniel Pivko, PhD. Last change: Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID:** Course title: PriF.KJ/N-bXCJ-136/22 Fachdeutsch in Naturwissenschaften 1 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 5. Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 9 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Karin Rózsová Wolfová Last change: 23.07.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID:** Course title: PriF.KJ/N-bXCJ-137/22 Fachdeutsch in Naturwissenschaften 2 **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 6. **Educational level:** I. **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 C Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Karin Rózsová Wolfová Last change: 23.07.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bUGE-026/22

Fundamentals of Cartography and Geoinformatics

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2/2 per level/semester: 28/28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 47

A	ABS	В	С	D	Е	FX
0,0	0,0	10,64	34,04	34,04	2,13	19,15

**Lecturers:** Mgr. Alexandra Benová, PhD., Mgr. Miroslav Kožuch, PhD., doc. RNDr. Eva Mičietová, CSc., Mgr. Richard Feciskanin, PhD., Mgr. Filip Moravčík, Mgr. Vladimír Pelech, PhD.

**Last change:** 28.09.2022

Approved by:

#### STATE EXAM DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-951/22 | Fundamentals of Mathematics

Number of credits: 2

**Educational level:** I.

### **Course requirements:**

The course 1-UMA-951/15 Fundamentals of Mathematics has two parts:

A) School mathematics test

The test uses the types of tasks from mathematics tests for the external part of the Matura exam and from mathematics tests at the entrance exams at FMFI UK, a total of 20 short-answer tasks or with a choice of several options.

B) Oral exam

The student draws an assignment, which has 3 parts - three different circuits

1. geometry, 2. combinatorics, probability and statistics, 3. algebra and theoretical arithmetic, 4. mathematical analysis.

Each part contains

- the task from the relevant area, the solution of which (including the justification of individual steps) the student will demonstrate during the oral answer,
- definition of the area of the relevant heading, which is related to the solved task; in the oral answer the student will state the basic concepts and statements of this area, or their relationship to the problem.

Maximum points:

- 20 points from the school mathematics test (1 point for each correct answer),
- 25 points for each of the three parts of the assignment (10 for solving the problem, 15 for the theoretical part),

thus a maximum of 20 + 3.25 = 95 points in total.

A student completes the course if he/she obtains at least 5 points for each of the three parts of the assignment and a total of at least 46 points.

Scale of assessment (preliminary/final): 0/100

# Learning outcomes:

State exam from selected areas of the core subjects of the program.

#### State exam syllabus:

Geometry

1. Study of affine space by analytical method

(subspaces - linear varieties, their parametric and general equations, intersections and mutual positions)

2. Study of Euclidean space by analytical method

(scalar product of vectors and metrics, perpendicularity of subspaces, distances of subspaces, angles)

3. Affine representations of spaces

(analytical expression of affine mapping, invariants of affine transformations, group of similarities of Euclidean space)

- 4. Axiomatic construction of geometry: incidental and ordered plane (axioms of incidence and arrangement and their consequences, models of incident and ordered plane.)
- 5. Axiomatic construction of geometry: Hilbert's and Euclidean planes (axioms of similarity and their consequences: triangles of similarity of triangles, properties of a triangle, construction of perpendiculars and parallels; axioms of parallelism and axioms of continuity)

Combinatorics, probability and statistics

- 1. Mathematical induction (principle of mathematical induction; connection with good arrangement of natural numbers; examples of use).
- 2. Pigeon/Dirichlet principle (formulation and some applications).
- 3. Combinatorial principles (addition principle, multiplication principle, bijection principle, counting in two ways).
- 4. Binomial coefficients and binomial theorem (definition and formula for binomial coefficients and some of their properties; binomial theorem formulation).
- 5. Principle of inclusion and exclusion (formulation and examples of use).
- 6. Probability, its basic properties. Conditional probability and independence of events. Complete Probability Theorem, Bayes Theorem.
- 7. Probability distributions, their properties and characteristics (distribution function, density, mean value, dispersion). Special types of distributions (alternative, binomial, geometric, exponential, normal). Central limit theorem.
- 8. Descriptive statistics (location and variability characteristics). Point estimates (random selection; estimates of mean and dispersion and their properties).
- 9. Confidence intervals for the mean value. Hypothesis testing, one-choice tests on the mean value. Algebra and theoretical arithmetic
- 1. Linear representations and their matrices, product of matrices, inverse matrices.
- 2. Vector spaces and subspaces, linear combinations of vectors, linear representations.
- 3. Finite-dimensional vector spaces, base and dimension of finite-dimensional vector space.
- 4. Systems of linear equations, the existence of a solution of an inhomogeneous system of linear equations, the structure of the set of solutions of a homogeneous system of linear equations.
- 5. Divisibility in the field of integers. Theorem on division with the rest. The largest common divisor and the smallest common multiple of two integers. Euclidean algorithm for calculating the greatest common divisor.
- 6. Prime numbers, their properties, theorem about the decomposition of a natural number into the product of prime numbers. Number systems.
- 7. Congruences, divisibility criteria of natural numbers expressed in the decimal system, Euler's theorem, small Fermat's theorem.

Mathematical analysis

- 1. Limits of sequence and function, basic theorems about limits.
- 2. Continuity, properties of continuous functions on intervals, optimization search for global extrema of continuous functions on closed intervals, relationship between continuity and differentiability of a function.
- 3. Derivation of a function, Lagrange's theorem on mean value and its use in investigating the monotonicity of functions, necessary and sufficient conditions for the existence of local extrema of differentiable functions.
- 4. Approximation of differentiable function by polynomials, equation of tangent, equation of Taylor polynomial of n-th degree.
- 5. Indefinite integral and primitive function, basic integration formulas, per partes method and substitutions.

6. Riemann integral, definition and calculation, heuristic derivation of formulas for calculation of area content, length of curve, volume of rotating body and surface of rotating body.

# Languages necessary to complete the course:

slovak, enghlish

**Last change:** 13.04.2023

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

Course title:

PriF.KDPP/N-bUXX-037/22

**General Didactics** 

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 1 per level/semester: 28 / 14

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 4.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 46

A	ABS	В	С	D	Е	FX
30,43	0,0	26,09	26,09	8,7	2,17	6,52

Lecturers: doc. RNDr. PaedDr. Zuzana Haláková, PhD.

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KGe/N-XXXX-004/21

Genetics for everyone

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

**Number of credits: 3** 

Recommended semester: 2., 4., 6.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 729

A	В	С	D	Е	FX
93,0	1,37	0,0	0,0	0,0	5,62

**Lecturers:** RNDr. Regina Sepšiová, PhD., doc. Mgr. Miroslava Slaninová, Dr., Mgr. Filip Červenák, PhD., doc. RNDr. Andrea Ševčovičová, PhD., doc. RNDr. Eliška Gálová, PhD., Mgr. Stanislav Kyzek, PhD.

**Last change:** 15.05.2021

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-031/22

Geography of Sports and Sport Events

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

Number of credits: 3

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 6

A	ABS	В	С	D	Е	FX
83,33	0,0	16,67	0,0	0,0	0,0	0,0

Lecturers: doc. Mgr. Vladimír Bačík, PhD., RNDr. Michal Klobučník, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KEGD/N-bUGE-015/22 Geography of Tourism and Its Current Problems **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 41

A	ABS	В	С	D	Е	FX
26,83	0,0	14,63	31,71	17,07	7,32	2,44

Lecturers: Mgr. Ingrid Bučeková, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-014/22

Geography of Transport and Logistics

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 30

A	ABS	В	С	D	Е	FX
13,33	0,0	23,33	36,67	16,67	6,67	3,33

Lecturers: doc. Mgr. Marcel Horňák, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N- Geography of the World in the 21.st century XXXX-001/21

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

**Number of credits: 3** 

Recommended semester: 2., 4., 6.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 56

A	В	C	D	Е	FX
78,57	7,14	5,36	1,79	1,79	5,36

Lecturers: Mgr. Rastislav Cákoci, PhD., RNDr. Katarína Danielová, PhD., doc. RNDr. Daniel Gurňák, PhD., doc. RNDr. František Križan, PhD., doc. RNDr. Eva Rajčáková, CSc., Mgr. Michala Sládeková Madajová, PhD., RNDr. Angelika Švecová, PhD., Mgr. Martin Šveda, PhD., prof. RNDr. Ladislav Tolmáči, PhD., RNDr. Mgr. Anna Tolmáči, PhD., Mgr. Gabriel Zubriczký, PhD.

**Last change:** 15.05.2021

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-029/22

Geoinformatics for Human Geography and Demography

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester: 2.** 

**Educational level:** I.

**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

A	ABS	В	С	D	Е	FX
0,0	0,0	0,0	50,0	50,0	0,0	0,0

Lecturers: doc. Mgr. Vladimír Bačík, PhD., doc. RNDr. Dagmar Kusendová, CSc.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KGP/N-bGPA-119/22 Geology for Teachers **Educational activities:** Type of activities: lecture / seminar **Number of hours:** per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning Number of credits: 3 Recommended semester: 1., 2.. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** 

Past grade distribution

Total number of evaluated students: 19

A	В	С	D	Е	FX
15,79	15,79	15,79	21,05	26,32	5,26

Lecturers: doc. RNDr. Daniel Pivko, PhD.

Last change: 06.09.2022

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KMPLG/N-XXXX-007/21

Geology in Nutshell

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 2., 4., 6.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 28

A	В	C	D	Е	FX
82,14	0,0	0,0	0,0	14,29	3,57

**Lecturers:** prof. RNDr. Roman Aubrecht, Dr., doc. Mgr. Natália Hlavatá Hudáčková, PhD., doc. RNDr. Jozef Hók, CSc., prof. RNDr. Michal Kováč, DrSc., RNDr. Alexander Lačný, PhD., doc. RNDr. Jana Fridrichová, PhD., RNDr. Ondrej Nemec, PhD.

**Last change:** 20.01.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KDMFI/1-UMA-142/22

Geometry (0)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

**Educational level:** I.

# **Prerequisites:**

# **Course requirements:**

Final evaluation: The student prepares a portfolio of at least three activities in geometry in the GeoGebra program. At the final evaluation, one must be selected at random. In addition, it responds from a randomly selected topic. It consists of theory and example.

Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 0/100

## **Learning outcomes:**

Get an overview of the geometry of primary and secondary schools. Concepts, facts, procedures.

# Class syllabus:

- 1. GeoGebra
- 2. Construction tasks what at the elementary school, high school is a construction task, respectively, its solution
- 3. Pythagorean and Euclidean theorems
- 4. Rectangles
- 5. Circle, central, circumferential and section angle
- 6. Views, stacking of axial symmetries, vectors and displacement (introduction to the term vector)
- 7. Analytic geometry (vector) 2D
- 8. Analytical geometry 3D
- 9. 3D geometry floor plan, front view, side view, constructions from cubes
- 10. Cuts and other bodies

# **Recommended literature:**

elementary and high school mathematics textbooks

Seminár z matematiky : 3. časť / Zbyněk Kubáček, Ján Žabka Bratislava : Mapa Slovakia Plus s.r.o., 2020

## Languages necessary to complete the course:

slovak

**Notes:** 

The course is primarily intended for teacher training students; students of other programs can enroll in it only with the consent of their guarantor.

# Past grade distribution

Total number of evaluated students: 26

A	В	С	D	Е	FX
73,08	15,38	7,69	0,0	3,85	0,0

Lecturers: RNDr. Monika Dillingerová, PhD.

**Last change:** 17.03.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KAG/1-UMA-107/15

Geometry (1)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

Recommended semester: 3.

Educational level: D. I.

Prerequisites: FMFI.KAG/1-UMA-112/22 - Algebra and Theoretical Arithmetic (1) or

FMFI.KAG/1-UMA-112/15 - Linear Algebra

**Course requirements:** 

Preliminary assessment: homework (20%), written tests (40%)

Final assessment: oral exam (40%)

Grading: A 90%, B 80%, C 70%, D 60%, E 50%

## **Learning outcomes:**

Master the analytical methods of studying the geometric properties of subspaces of n-dimensional affine (or Euclidean) space and its maps

## Class syllabus:

- n-dimensional affine space A<sup>n</sup> and Euclidean space E<sup>n</sup>;
- coordinate systems;
- affine maps;
- orientation of affine space;
- subspaces / linear varieties in E^n: parametric description and implicit equations, relative positions, distances and angles of some subspaces;
- invariants of affine maps (fixed points, eigenvectors);
- isometries, reflections as generators of the group of isometries of the Euclidean plane

## **Recommended literature:**

# Languages necessary to complete the course:

## **Notes:**

# Past grade distribution

Total number of evaluated students: 182

A	В	С	D	Е	FX
24,73	14,84	21,98	11,54	18,13	8,79

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD., RNDr. Jana Chalmovianská, PhD.

<b>Last change:</b> 21.06.2022	
Approved by:	

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KAG/1-UMA-220/15

Geometry (2)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

Recommended semester: 4.

**Educational level:** D, I.

**Prerequisites:** 

## **Course requirements:**

Preliminary assessment: homework (20%), written tests (40%)

Final assessment: oral exam (40%)

Grading: A 90%, B 80%, C 70%, D 60%, E 50%

## **Learning outcomes:**

The student gets familiar with the axiomatic construction of planimetry. He learns partly Euclid's, but especially Hilbert's axiomatic system. They will practice thorough mathematical argumentation and get knowledge of several models of different groups of axioms.

## Class syllabus:

- history of axiomatics of geometry, Euclidean constructions
- axioms of incidence, incidence geometry models
- axioms of order, ordered plane models
- axioms of congruence, theorems about the congruence of triangles, arithmetics of line segments and angles, Hilbert plane
- controversy of the axiom of parallelism
- axioms of continuity and circle continuity principles
- some of Apollonius' problems

#### **Recommended literature:**

# Languages necessary to complete the course:

# **Notes:**

# Past grade distribution

Total number of evaluated students: 189

A	В	С	D	Е	FX
21,69	16,93	26,98	13,23	9,52	11,64

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD., RNDr. Jana Chalmovianská, PhD.

<b>Last change:</b> 21.06.2022	
Approved by:	

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KAG/1-UMA-301/22

Geometry (3)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 5.

Educational level: D, I.

**Prerequisites:** 

## **Course requirements:**

Preliminary assessment: homework Final assessment: written exam

Grading: A 90%, B 80%, C 70%, D 60%, E 50%

# **Learning outcomes:**

The main goal of the course is to strengthen the spatial imagination. The students learn the basics of polyhedral theory, the possibilities of displaying three-dimensional objects in a plane and also maps of two-dimensional spaces, which require embedding into three dimensions. They get practice in solving stereometric problems.

## Class syllabus:

- introduction to theory of polyhedral, Euler's theorem, Platonic solids
- incidence (sections of solids) and metric (distances and angles) problems in stereometry
- principles of parallel projection, orthogonal projection (Monge projection), oblique projection
- ellipse as an affine image of a circle
- central projection, linear perspective, basics of projective space
- non-linear projection: stereographic projection, other cartographic representations

# **Recommended literature:**

## Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 184

Α	В	С	D	Е	FX
29,35	22,83	17,93	13,59	8,15	8,15

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD., RNDr. Jana Chalmovianská, PhD.

Last change: 21.06.2022

Approved by:	
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Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZXX-136/22 Geomorphology **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 28

A	ABS	В	С	D	Е	FX
10,71	0,0	10,71	25,0	14,29	10,71	28,57

Lecturers: prof. RNDr. Jozef Minár, CSc., Mgr. Juraj Procházka, PhD.

**Last change:** 27.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bUGE-027/22 Geomorphology – Basic Practical Course **Educational activities:** Type of activities: practicals **Number of hours:** per week: 1 per level/semester: 14 Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 4. **Educational level:** I. **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	В	С	D	Е	FX
0,0	0,0	0,0	0,0	100,0	0,0	0,0

Lecturers: Mgr. Juraj Procházka, PhD., Mgr. Veronika Beranová

Last change: 28.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KPl/N-XXXX-009/21 Global Environmental Issues

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 2., 4., 6.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 297

A	В	С	D	Е	FX
94,95	0,0	0,67	0,0	0,0	4,38

**Lecturers:** doc. RNDr. Katarína Pavličková, CSc., prof. RNDr. Pavel Dlapa, PhD., RNDr. Martina Zvaríková, PhD., doc. RNDr. Ľubomír Jurkovič, PhD.

Last change: 09.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEM/N-bXXX-001/19

Green University 1

**Educational activities:** 

**Type of activities:** practicals / seminar

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1., 2., 3., 4., 5., 6..

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 71

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Jaroslav Bella, doc. Mgr. Miroslava Slaninová, Dr., RNDr. Hubert Žarnovičan,

PhD., Mgr. Martin Šebesta, PhD.

Last change: 11.02.2020

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEM/N-bXXX-002/19

Green University 2

**Educational activities:** 

**Type of activities:** practicals / seminar

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1., 2., 3., 4., 5., 6..

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 21

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: RNDr. Jaroslav Bella, doc. Mgr. Miroslava Slaninová, Dr., Mgr. Martin Šebesta, PhD.,

RNDr. Hubert Žarnovičan, PhD.

Last change: 11.02.2020

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N-bUGE-036/22 | Historical Geography for Teachers

**Educational activities: Type of activities:** lecture

Number of hours:

per week: 3 per level/semester: 42 Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 13

A	ABS	В	С	D	Е	FX
0,0	0,0	7,69	23,08	23,08	15,38	30,77

Lecturers: doc. RNDr. Daniel Gurňák, PhD.

Last change: 23.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KEGD/N-bUGE-018/22 | Human Settlements and Their Transformation - Geography of

Settlements and Urban Development

**Educational activities: Type of activities:** lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

**Number of credits: 2** 

**Recommended semester:** 3., 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 6

A	ABS	В	С	D	E	FX
16,67	0,0	50,0	0,0	16,67	0,0	16,67

Lecturers: prof. RNDr. Ján Buček, CSc., RNDr. Michal Klobučník, PhD.

**Last change:** 14.09.2022

Approved by:

Academic year: 2022/2023
University: Comenius University Bratislava
Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UXX-343/22 | Interesting Extracurricular Activities

Educational activities: Type of activities: course

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I., II.

## **Prerequisites:**

## **Course requirements:**

Interim evaluation: Active participation; during the semester, students prepare a written semester work.

Indicative rating scale A = (90, 100]%, B = (80, 90]%, C = (70, 80]%, D: (60, 70]%, E: (50, 60]%). Scale of assessment (preliminary/final): 100 / 0

# **Learning outcomes:**

Student by completing the course:

- acquire basic knowledge about the specifics of leading hobby groups,
- acquire basic knowledge of the specifics of working with different age groups and age-mixed groups,
- will be able to actively apply selected methods of non-formal and informal learning,
- will be able to develop interdisciplinary relationships.

### Class syllabus:

- Formal, non-formal and informal learning.
- Objectives of extracurricular activities knowledge, skills, attitudes, relationships.
- Situation analysis condition analysis, environment analysis and needs analysis.
- Organizational forms of extracurricular leisure activities.
- Methods of work in the department of interest.
- Examples of good practice.

#### **Recommended literature:**

own electronic texts published on the website, resp. in the Moodle environment Pešek, T., Škrabský, T., Novosádová, M., Dočkalová, J. 2019. The syllabary of non-formal education in youth work, Bratislava, YouthWatch, ISBN 978-80-973031-2-9

# Languages necessary to complete the course:

Slovak

**Notes:** 

Past grade distribution Total number of evaluated students: 0							
A B C D					FX		
0,0	0,0	0,0	0,0	0,0	0,0		
Lecturers: doc.	PaedDr. Viera H	averlíková, PhD					
Last change: 22.06.2022							
Approved by:							

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bXDI-004/22 Introduction to Philosophy (1) **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. **Educational level:** I. **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 В C Α D E FX 0,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Štefan Zolcer, PhD. Last change: 01.08.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bXDI-005/22 Introduction to Philosophy (2) **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 6. **Educational level:** I. **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 В C A D E FX 0,0 0,0 0,0 0,0 0,0 0,0Lecturers: Mgr. Štefan Zolcer, PhD. Last change: 01.08.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KEGD/N-bUGE-035/22

Introduction to Spatial Statistical Analysis

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 1 per level/semester: 28 / 14

Form of the course: on-site learning

Number of credits: 3

**Recommended semester: 2.** 

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Pavol Ďurček, PhD., Mgr. Gabriela Nováková, PhD.

Last change: 13.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N-bUGE-032/22 Introduction to the Study of Geography and Planetar Geography

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 1 per level/semester: 28 / 14

Form of the course: on-site learning

Number of credits: 3

Recommended semester: 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 47

A	ABS	В	С	D	Е	FX
8,51	0,0	10,64	36,17	17,02	21,28	6,38

Lecturers: prof. RNDr. Ladislav Tolmáči, PhD.

Last change: 11.10.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KEM/N-bEXX-127/22 Land Conservation and Use **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 4. **Educational level:** I. **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	В	С	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Katarína Pavličková, CSc., Mgr. Marta Nevřelová, PhD., RNDr. Jana

Ružičková, PhD., Mgr. Blanka Lehotská, PhD.

Last change: 07.11.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID:** Course title: PriF.KJ/N-bXCJ-138/22 Latinčina **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 1., 2.. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 132 Α В  $\mathbf{C}$ D E FX 4,55 61,36 12,88 6,06 3,03 12,12 Lecturers: Mgr. Ivan Lábaj, PhD., RNDr. Tatiana Slováková, PhD. Last change: 07.11.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KRGRR/N-bUGE-034/22

Macro-regions of the Earth

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 4.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 6

A	ABS	В	С	D	Е	FX
0,0	0,0	16,67	33,33	16,67	0,0	33,33

**Lecturers:** Mgr. Rastislav Cákoci, PhD., RNDr. Katarína Danielová, PhD., doc. RNDr. Daniel Gurňák, PhD., Mgr. Gabriel Zubriczký, PhD.

Last change: 23.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KPl/N-XXXX-008/21

Man as a part of the nature

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 1., 3., 5.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 580

A	В	С	D	Е	FX
90,0	0,0	0,0	0,0	0,17	9,83

Lecturers: RNDr. Martina Zvaríková, PhD., prof. RNDr. Pavel Dlapa, PhD., RNDr. Malvína Čierniková, PhD., prof. RNDr. Elena Masarovičová, DrSc., prof. PaedDr. Pavol Prokop, DrSc., prof. RNDr. Peter Fedor, DrSc., prof. Ing. Eva Chmielewská, CSc., RNDr. Martin Labuda, PhD., doc. RNDr. Eva Pauditšová, PhD., RNDr. Hubert Žarnovičan, PhD., doc. RNDr. Stanislav Rapant, DrSc., doc. RNDr. Ľubomír Jurkovič, PhD., doc. Mgr. Tomáš Lánczos, PhD., doc. RNDr. Katarína Pavličková, CSc.

Last change: 09.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-143/22 | Mathematical Analysis (0)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

**Educational level:** I.

## **Prerequisites:**

## **Course requirements:**

Continuous assessment: seminar activity, two continuous tests

Final evaluation: test

Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 60/40

# **Learning outcomes:**

Students will deepen their knowledge of selected elementary functions, which they will use in introducing new concepts related to the functions of one real variable, sequences of real numbers and their properties. They will be able to properly apply digital technologies, solve tasks leading to modeling of selected phenomena from real life (e.g., cell proliferation, radioactive decay, physical laws, etc.)

# Class syllabus:

Exponential functions, properties of powers (also rational), Logarithmic functions, Goniometric functions, Cyclometric functions, Sequences of numbers, intuitive notion of convergency of a number sequence.

### **Recommended literature:**

Seminár z matematiky. Matematika pre maturantov. Zbierka úloh s riešeniami. 1. časť. / Z.

Kubáček a J. Žabka. MAPA Slovakia, 2017

Seminár z matematiky. Matematika pre maturantov. Zbierka úloh s riešeniami. 2. časť/ Z.

Kubáček a J. Žabka. MAPA Slovakia, 2018

Základy matematické analýzy: 1. díl / J. Veselý. Praha: Matfyz Press, 2004 Matematická analýza pro učitele: 1. díl / J. Veselý. Praha: Matfyz Press, 1997

A First Course in Real Analysis. 2nd Ed / M.H. Protter a C. B. Morrey. Springer-Verlag, 1991

# Languages necessary to complete the course:

slovak, enghlis

**Notes:** 

The course is primarily intended for teacher training students; students of other programs can enroll in it only with the consent of their guarantor.

# Past grade distribution

Total number of evaluated students: 30

A	В	С	D	Е	FX
23,33	6,67	16,67	26,67	20,0	6,67

Lecturers: RNDr. Monika Dillingerová, PhD.

**Last change:** 14.03.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-101/22 | Mathematical Analysis (1)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 5

**Recommended semester: 3.** 

**Educational level:** I.

## **Prerequisites:**

## **Course requirements:**

Continuous assessment: two continuous tests, at least 60% for the progress of the written part of the exam

Examination: written and oral, at least 50% success in the written test for the oral part

Assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 60/40

## **Learning outcomes:**

Comprehention of basic ideas and concepts of differential calculus of functions of one real variable. After completing the course, the student can use the methods of differential calculus of functions of one variable in solving some specific, practical problems and simpler optimization problems, to create numerical estimates of quantities. Students will master more accurate methods of determining the course of the quantity, they will be able to approximate the values of functions with the values of the polynomial.

## Class syllabus:

Estimates of lengths, areas and volumes, considerations using infinitesimal quantities (Kepler, Cavalieri). Introduction of real numbers. Limit of sequence, Convergence of a bounded monotonic sequence, Limits theorems. Function limits - a definition based on the concept of sequence limits. Function limit theorems. Continuity of a function , Basic properties of continuous functions at intervals. Derivation of functions, derivatives of higher orders, their applications. Mean value theorems, L'Hospital's rule.

# **Recommended literature:**

Zbierka úloh z vyššej matematiky : 1. časť / Jozef Eliaš, Ján Horváth, Juraj Kajan. Bratislava :

Alfa, 1985

Zbierka úloh z vyššej matematiky : 2. časť / Jozef Eliaš, Ján Horváth, Juraj Kajan. Bratislava :

Alfa, 1986

Základy matematické analýzy : 1. díl / Jiří Veselý. Praha : Matfyzpress, 2004 Matematická analýza pro učitele : 1. díl / Jiří Veselý. Praha : Metafyz Press, 1997

A First Course in Real Analysis. 2nd Ed / M.H. Protter a C. B. Morrey. Springer-Verlag, 1991

# Languages necessary to complete the course:

slovak, english

**Notes:** 

# Past grade distribution

Total number of evaluated students: 181

A	В	С	D	Е	FX
12,15	11,6	9,94	19,34	20,44	26,52

**Lecturers:** doc. PaedDr. Mária Slavíčková, PhD., Mgr. Michaela Vargová, PhD., Mgr. Katarína Jánošková

**Last change:** 17.06.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-105/22 | Mathematical Analysis (2)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

**Number of credits: 5** 

Recommended semester: 4.

**Educational level:** I.

**Prerequisites:** FMFI.KDMFI/1-UMA-101/22 - Mathematical Analysis (1)

# **Recommended prerequisites:**

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# **Course requirements:**

Continuous assessment: two continuous tests, at least 60% for the progress of the written part of the exam

Examination: written and oral, at least 50% success in the written test for the oral part

Assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 60/40

# **Learning outcomes:**

Understand the basic concepts and principles of the curriculum specified in the syllabus. Using the techniques of integral calculus of one variable, they will be able to apply a definite integral in the calculation of measures of geometric shapes and bodies. They will understand the principle of deriving formulas to calculate these quantities. Using the above knowledge, students will be able to find solutions to selected problems, estimate the values of some functions and important constants using infinite series.

## Class syllabus:

Taylor polynomial, Antiderivatives and Definite integral, Substitution rule, Integration by parts, The elements of Riemann integral theory, The Fundamental Theorem of Calculus, Application of Integration - areas between curves, volumes, arc length, area of surface of revolution, Improper integrals, Infinite series, Absolute convergence, Rearrangements of infinite series

# **Recommended literature:**

Zbierka úloh z vyššej matematiky : 2. časť / Jozef Eliaš, Ján Horváth, Juraj Kajan. Bratislava :

Alfa, 1985

Zbierka úloh z vyššej matematiky : 4. časť / Jozef Eliaš, Ján Horváth, Juraj Kajan. Bratislava :

Alfa, 1986

Základy matematické analýzy : 1. díl / Jiří Veselý. Praha : Matfyzpress, 2004 Matematická analýza pro učitele : 1. díl / Jiří Veselý. Praha : Metafyz Press, 1997

A First Course in Real Analysis. Second Ed / Protter, M.H., a Morrey, C. B..Springer-Verlag, 1991

# Languages necessary to complete the course:

slovak, english

# **Notes:**

# Past grade distribution

Total number of evaluated students: 124

A	В	С	D	Е	FX
20,16	17,74	17,74	29,03	10,48	4,84

**Lecturers:** doc. PaedDr. Mária Slavíčková, PhD., Mgr. Michaela Vargová, PhD., Mgr. Katarína Jánošková

**Last change:** 16.03.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-211/22 | Mathematical Analysis (3)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 6.

**Educational level:** I.

Prerequisites: FMFI.KMANM+KDMFI/1-UMA-105/15 - Mathematical Analysis (2) or

FMFI.KDMFI/1-UMA-105/22 - Mathematical Analysis (2)

# **Recommended prerequisites:**

Matehematical analysis (1), Mathematical analysis (2)

# **Course requirements:**

Continuous assessment: two continuous tests, at least 60% for the progress of the written part of the exam Examination: written and oral, at least 50% success in the written test for the oral part Assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 60/40

# Learning outcomes:

Students will be able to identify the type of integral and solve the integral by a suitable method. By modeling using differential equations, they will be able to describe simpler events in nature, such as different types of growth, descent, decay, mixing of fluids, gases. Using the above knowledge, students will be able to find solutions to selected problems, estimate the values of some functions and important constants using infinite series.

# Class syllabus:

Techniques of Integration (Integration of Rational Function by Partial Fractions, Trigonometric Integrals, Trigonometric Substitution), Differential Equations (Separable Differential Equations, Linear Differential Equations), Applications of Diferential Equations, Functional Sequences, Uniform Convergence of Functional Sequences, Functional Series, Uniform Convergence of Functional Series, Term by Term Differentiation and Term by Term Integration of Series, Power Series, Taylor Series

### Recommended literature:

A First Course in Real Analysis. Second Ed / Protter, M.H., a Morrey, C. B. Springer-Verlag, 1991

## Languages necessary to complete the course:

Notes:

Past grade dist	Past grade distribution							
Total number of evaluated students: 114								
A	В	С	D	Е	FX			
44,74	20,18	16,67	6,14	8,77	3,51			

**Lecturers:** doc. PaedDr. Mária Slavíčková, PhD., Mgr. Michaela Vargová, PhD., Mgr. Emília Miťková, PhD.

**Last change:** 16.03.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KDMFI/1-UMA-221/22

Mathematical Contests and Seminars (1)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 3.

**Educational level:** I.

# **Prerequisites:**

## **Course requirements:**

Continuous assessment: Homework - individual work of students Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

# **Learning outcomes:**

Students will deepen and expand their knowledge of selected areas of lower secondary school mathematics with an emphasis on counting tasks from mathematical Olympiads, competitions and correspondence seminars. Focus on the issue of linking higher mathematics with lower secondary school mathematics, especially for gifted pupils or pupils with an increased interest in mathematics.

# Class syllabus:

Number theory. Equations, inequalities and their systems. Sequence. Planimetry. Stereometry. Combinatorics. Logic.

# **Recommended literature:**

Vybrané úlohy z matematických olympiád : Kategoria Z : výber riešených úloh z III. až XXI. ročníka súťaže / processed by J. Vyšín, V. Macháček. Bratislava : Slovenské pedagogické nakladateľstvo., 1974

Geometrické úlohy z matematickej olympiády ZŠ / M. Dillingerová. Bratislava : Metodicko-pedagogické centrum, 2005

Jak jse jmenuje tahle knížka / R. Smullyan. Praha: Portál, 2015

Matematici, ja a ty / P. Bero. Bratislava: Mladé letá, 1989

Odborný program matematických krúžkov na II. stupni ZŠ / H. Bachratý, K. Bachratá, V. Burjan.

Bratislava: PÚMB, 1986

Tasks from Mathematical Olympiad, competitions and Mathematical correspondence seminars

## Languages necessary to complete the course:

Slovak, English

# **Notes:**

Past grade distribution Total number of evaluated students: 11					
A	В	С	D	Е	FX
72,73	27,27	0,0	0,0	0,0	0,0
Lecturers: Mgr. Emília Miťková, PhD.					
<b>Last change:</b> 17.03.2022					
Approved by:					

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-222/22 | Mathematical Contests and Seminars (2)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

Recommended semester: 4.

**Educational level:** I.

# **Prerequisites:**

## **Course requirements:**

Continuous assessment: Homework - individual work of students Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 100/0

# **Learning outcomes:**

Students will deepen and expand their knowledge of selected areas of lower and upper secondary mathematics with an emphasis on counting tasks from mathematical Olympiads, competitions and correspondence seminars. Focus on the issue of linking higher mathematics with lower and upper secondary mathematics, especially for gifted pupils or pupils with an increased interest in mathematics.

### Class syllabus:

Logic, reasoning and proof. Trigonometry. Game theory. Optimization tasks. Functions, their properties, and graphs.

### **Recommended literature:**

Vybrané úlohy z matematických olympiád : Kategoria Z : výber riešených úloh z III. až XXI. ročníka súťaže / processed by J. Vyšín, V. Macháček. Bratislava : Slovenské pedagogické nakladateľstvo., 1974

Geometrické úlohy z matematickej olympiády ZŠ / M. Dillingerová. Bratislava : Metodicko-pedagogické centrum, 2005

Jak jse jmenuje tahle knížka / R. Smullyan. Praha: Portál, 2015

Matematici, ja a ty / P. Bero. Bratislava: Mladé letá, 1989

Odborný program matematických krúžkov na II. stupni ZŠ / H. Bachratý, K. Bachratá, V. Burjan.

Bratislava: PÚMB, 1986

Tasks from Mathematical Olympiad, competitions and Mathematical correspondence seminars

## Languages necessary to complete the course:

Slovak, English

# **Notes:**

Past grade distribution Total number of evaluated students: 1							
A B C D E FX							
100,0	0,0	0,0	0,0	0,0	0,0		
Lecturers: Mgi	Lecturers: Mgr. Emília Miťková, PhD.						
Last change: 17.03.2022							
Approved by:							

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID:** Course title: PriF/N-bUXX-001/22 **Mathematics Educational activities:** Type of activities: lecture / seminar **Number of hours:** per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning Number of credits: 3 Recommended semester: 1. **Educational level:** I. **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 В  $\mathbf{C}$ Α D E FX 54,55 18,18 18,18 9,09 0,0 0,0Lecturers: PaedDr. Peter Vankúš, PhD. Last change: 06.11.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bUGE-024/22

Meteorology, Climatology and Hydrology

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/3 per level/semester: 14/42

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 2.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 41

A	ABS	В	С	D	Е	FX
29,27	0,0	39,02	14,63	2,44	7,32	7,32

Lecturers: doc. RNDr. Milan Trizna, PhD.

Last change: 28.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-032/22

Mobility, Migration Flows and Their Management

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 1 per level/semester: 28 / 14

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 5.

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Branislav Bleha, PhD., Mgr. Marcela Káčerová, PhD.

Last change: 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bXDI-014/22

Pedagogical Communication

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 66

A	ABS	В	С	D	Е	FX
65,15	0,0	21,21	6,06	6,06	0,0	1,52

Lecturers: doc. RNDr. PaedDr. Zuzana Haláková, PhD.

Last change: 14.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFGGI/N-bZFG-065/22 Pedology and Pedogeography **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester: 3. Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 19  $\mathbf{C}$ Α ABS В D E FX 0,0 5,26 5,26 10,53 21,05 52,63 5,26 Lecturers: doc. Ing. Peter Pišút, PhD., RNDr. Marián Jenčo, PhD.

Strana: 114

Last change: 28.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bZFG-066/22

Pedology and Pedogeography – Practical Course

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 1 per level/semester: 14 Form of the course: on-site learning

Number of credits: 1

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 13

A	ABS	В	С	D	Е	FX
53,85	0,0	30,77	0,0	7,69	0,0	7,69

Lecturers: Mgr. Romana Kohilová, doc. Ing. Peter Pišút, PhD., RNDr. Marián Jenčo, PhD.

**Last change:** 29.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KJCh/N-XXXX-011/21

Perspectives in Chemistry

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1., 3., 5.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 22

A	В	С	D	Е	FX
22,73	45,45	18,18	4,55	0,0	9,09

**Lecturers:** RNDr. Marek Cigáň, PhD., doc. RNDr. Martin Putala, CSc., prof. Ing. Dušan Velič, DrSc., prof. RNDr. Ivan Černušák, DrSc., doc. RNDr. Erik Rakovský, PhD., Mgr. Peter Hrobárik, PhD., doc. RNDr. Oľga Rosskopfová, PhD.

Last change: 07.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KBCh/N-XXXX-010/22

Perspectives of Biochemistry

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 2., 4., 6.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 17

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Marek Mentel, PhD., Mgr. Filip Brázdovič, PhD., Mgr. Andrea Cillingová, PhD., prof. RNDr. Anton Horváth, CSc., Mgr. Stanislav Huszár, PhD., Mgr. Petra Chovančíková, PhD., prof. RNDr. Marta Kollárová, DrSc., doc. RNDr. Jana Korduláková, PhD., prof. RNDr. Katarína Mikušová, DrSc., Ing. Martina Neboháčová, PhD., doc. Mgr. Peter Polčic, PhD., RNDr. Ingrid Sveráková, PhD., doc. RNDr. Igor Zeman, PhD., Mgr. Júlia Zemanová, PhD.

**Last change:** 19.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KFR/N-bBXX-002/22 Perspectives of Current Biology **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 1. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution

Total number of evaluated students: 254

A	В	С	D	Е	FX
66,14	15,35	8,27	1,18	0,79	8,27

Lecturers: doc. Mgr. Michal Martinka, PhD., prof. RNDr. L'ubomír Tomáška, DrSc., prof. RNDr. Karol Mičieta, PhD., doc. RNDr. Radoslav Beňuš, PhD., prof. RNDr. Ján Turňa, CSc., prof. RNDr. Michal Zeman, DrSc., doc. Mgr. Peter Vďačný, Dr.rer.nat, doc. RNDr. Stanislav Stuchlík, PhD., prof. RNDr. Yvetta Gbelská, CSc., doc. RNDr. Tomáš Derka, PhD., RNDr. Boris Klempa, DrSc.

**Last change:** 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-101/22 Physical Education 1 **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 1. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 365

A	В	С	D	Е	FX
92,05	1,64	0,27	0,0	0,0	6,03

Lecturers: Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-102/22 Physical Education 2 **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 2. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 153

A	В	C	D	E	FA
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

**Last change:** 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KTV/N-bXTV-103/22

Physical Education 3

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 211

A	В	С	D	Е	FX
95,26	0,47	0,95	0,0	0,0	3,32

**Lecturers:** Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-104/22 Physical Education 4 **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 4. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 178

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-105/22 Physical Education 5 **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 5. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution

Total number of evaluated students: 154

A	В	C	D	Е	FX
96,1	1,3	0,0	0,0	0,0	2,6

Lecturers: Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-106/22 Physical Education 6 **Educational activities:** Type of activities: practicals **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 6. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 123

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Kristína Vanýsková, PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Ján Krošlák, Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, PaedDr. Vladimír Pajkoš, Mgr. Dana Széllová, Mgr. Denisa Šeďová

**Last change:** 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KFGGI/N-bZXX-012/22

Physical Geography

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 4 per level/semester: 56 Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 91

A	ABS	В	С	D	Е	FX
0,0	0,0	4,4	14,29	21,98	20,88	38,46

**Lecturers:** RNDr. Ivan Ružek, PhD., doc. RNDr. Igor Matečný, PhD., doc. RNDr. Milan Trizna, PhD., prof. RNDr. Jozef Minár, CSc., RNDr. Marián Jenčo, PhD., doc. RNDr. Jozef Hók, CSc.

Last change: 03.10.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF/N-bUXX-002/22 **Physics Educational activities:** Type of activities: lecture / seminar **Number of hours:** per week: 2 / 1 per level/semester: 28 / 14 Form of the course: on-site learning Number of credits: 3 **Recommended semester: 2. Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 30 Α В  $\mathbf{C}$ D E FX 16,67 36,67 0,0 40,0 6,67 0,0Lecturers: PaedDr. Lukáš Bartošovič, PhD., doc. PaedDr. Viera Haverlíková, PhD. Last change: 17.10.2022 Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KBo/N-XXXX-003/21

Plants known and unknown

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 1., 3., 5.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 460

A	В	С	D	Е	FX
70,43	21,96	3,7	0,0	0,0	3,91

**Lecturers:** Ing. Mgr. Eva Zahradníková, PhD., doc. Mgr. Katarína Mišíková, PhD., doc. RNDr.

Jana Ščevková, PhD.

Last change: 30.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

Course title:

PriF.KEGD/N-bUGE-030/22

Power, Space and Conflict - Political Geography and Geopolitics

**Basics** 

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester: 2.** 

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	100,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ján Buček, CSc., RNDr. Martin Plešivčák, PhD.

**Last change:** 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N- Practical Geography for Natural Scientists XXXX-002/21

Educational activities:

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

Number of credits: 3

**Recommended semester:** 1., 3., 5.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 43

A	В	C	D	Е	FX
83,72	0,0	0,0	0,0	0,0	16,28

Lecturers: Mgr. Rastislav Cákoci, PhD., RNDr. Katarína Danielová, PhD., doc. RNDr. Daniel Gurňák, PhD., doc. RNDr. František Križan, PhD., doc. RNDr. Eva Rajčáková, CSc., Mgr. Michala Sládeková Madajová, PhD., RNDr. Angelika Švecová, PhD., Mgr. Martin Šveda, PhD., prof. RNDr. Ladislav Tolmáči, PhD., RNDr. Mgr. Anna Tolmáči, PhD., Mgr. Gabriel Zubriczký, PhD.

**Last change:** 15.05.2021

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KIHG/N-XXXX-012/21

Practical Geology for Everyone

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 1., 3., 5.

**Educational level:** I., II.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 35

A	В	С	D	Е	FX
65,71	11,43	8,57	5,71	0,0	8,57

Lecturers: doc. RNDr. Renáta Fľaková, PhD., doc. RNDr. Renáta Adamcová, PhD., prof. RNDr. Roman Pašteka, PhD., prof. RNDr. Martin Bednarik, PhD., doc. RNDr. Dávid Krčmář, PhD., doc. RNDr. Andrej Mojzeš, PhD., RNDr. Ivana Ondrejková, PhD., doc. Mgr. Vladimír Greif, PhD., Mgr. Rudolf Tornyai, PhD., RNDr. Tatiana Durmeková, PhD., Mgr. Martin Zatlakovič, PhD., doc. RNDr. Milan Seman, CSc.

Last change: 18.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UMA-144/22 | Probability Measure and Mathematical Statistics (0)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 2.** 

**Educational level:** I.

#### **Prerequisites:**

### **Course requirements:**

Continuous assessment: continuous paper

Final evaluation: creating a portfolio of tasks and their solutions

Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 50/50

# **Learning outcomes:**

Gaining a comprehensive view of the basic concepts and principles of probability and statistics and the ability to apply knowledge in this area in solving problems.

## Class syllabus:

- 1. Basic concepts of probability and related tasks (random events, probability, complementary probability, independent events, certain event, impossible event).
- 2. Geometric probability and related problems.
- 3. Combinatorial probability and related problems. Bernoulli's scheme.
- 4. Conditional probability.
- 5. Basic concepts of statistics: averages arithmetic, weighted, geometric, harmonic, modus, median, standard deviation.

#### **Recommended literature:**

Matematika pre 4. ročník gymnázií a 8. ročník gymnázií s osemročným štúdiom. / Kubáček, Z. Bratislava : Orbis Pictus Istropolitana, 2013

Matematika pre 3. ročník gymnázií a 7. ročník gymnázií s osemročným štúdiom (1. časť). /

Kubáček, Z. Bratislava: Orbis Pictus Istropolitana, 2010

Matematika a svet okolo nás. / Kubáček, Z., Černek, P., Žabka, J. Bratislava: PACI, 2008 Ako sa počíta pravdepodobnosť? / Bachratý, H., Grendár, M. a Bachratá, K. Žilina: Žilinská univerzita, 2010

Matematika náhody. / Anděl, J. Praha: Matfyzpress, 2000

# Languages necessary to complete the course:

slovak, enghlish

# **Notes:**

The course is primarily intended for teacher training students; students of other programs can enroll in it only with the consent of their guarantor.

# Past grade distribution

Total number of evaluated students: 31

A	В	С	D	Е	FX
32,26	38,71	12,9	6,45	0,0	9,68

Lecturers: PaedDr. Peter Vankúš, PhD.

**Last change:** 14.03.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KAMŠ/1-UMA-302/22

Probability Measure and Mathematical Statistics (1)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 5

**Recommended semester:** 5.

**Educational level:** I.

#### **Prerequisites:**

### **Course requirements:**

Preliminary evaluation: papers during the semester (40%)

Final exam: project (30%) and oral exam (30%) Rating scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 40/60

# **Learning outcomes:**

After completing the course, students will acquire classical probabilistic methods, axiomatic probability approach, will be able to work with discrete and continuous random variables and apply them to solve various problems. They will learn some statistical procedures and will be able to make point and interval estimators.

### Class syllabus:

Basic concepts of probability, classical, geometric and axiomatic definition of probability. Conditional probability, Bayes' theorem, independence of random events, Bernoulli's scheme. Continuous and discrete random variables. Distribution function and its properties, numerical characteristics. Normal distribution and central limit theorem.

Descriptive statistics. Random sample, sample characteristics, random sample from normal distribution. Point estimation, maximum likelihood method. Interval estimates for mean and variance. Hypothesis testing.

#### **Recommended literature:**

Pravdepodobnosť a štatistika / K. Janková, A. Pázman. Bratislava : Univerzita Komenského, 2011

Zbierka úloh zo základov teórie pravdepodobnosti / R. Harman, E. Hönschová, J. Somorčík.

Bratislava: PACI, 2009

Štatistika zrozumiteľne / J. Somorčík, I. Teplička. Nitra : Enigma, 2015 Introduction to probability models / S. M. Ross. Academic Press, 2010

### Languages necessary to complete the course:

Slovak, English

Notes:							
Past grade distribution Total number of evaluated students: 141							
A B C D E FX							
27,66	25,53	11,35	14,18	14,89	6,38		
Lecturers: Mg	Lecturers: Mgr. Lívia Rosová, PhD., doc. Mgr. Lenka Filová, PhD.						
Last change: 21.06.2022							
Approved by:							

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

FMFI.KAMŠ/1-UMA-309/22

Probability Measure and Mathematical Statistics (2)

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** FMFI.KAMŠ/1-UMA-302/15 - Probability Measure and Mathematical Statistics (1) or FMFI.KAMŠ/1-UMA-302/22 - Probability Measure and Mathematical Statistics (1)

# **Course requirements:**

Preliminary evaluation: papers during the semester (40%)

Final exam: project (30%) and oral exam (30%) Rating scale: A 90%, B 80%, C 70%, D 60%, E 50%

Scale of assessment (preliminary/final): 40/60

### Learning outcomes:

Students will be able to work with multidimensional distributions of discrete and continuous type. They will be able to apply the obtained probability theory to selected statistical problems of parameter estimation and hypothesis testing. They will be able to solve simple correlation and regression analysis problems.

## Class syllabus:

Random vectors and their characteristics. Marginal and conditional distributions and densities. Multidimensional normal distribution and its properties. Statistical inference, parameter estimation, maximum likelihood and moment method, correlation coefficient. Statistical hypothesis testing, one-sample and two-sample tests. Regression models and least squares method. Goodness of fit tests.

# **Recommended literature:**

Pravdepodobnosť a štatistika / K. Janková, A. Pázman. Bratislava : Univerzita Komenského, 2011

Zbierka úloh zo základov teórie pravdepodobnosti / R. Harman, E. Hönschová, J. Somorčík.

Bratislava: PACI, 2009

Štatistika zrozumiteľne / J. Somorčík, I. Teplička. Nitra : Enigma, 2015 Introduction to probability models / S. M. Ross. Academic Press, 2010

### Languages necessary to complete the course:

Slovak, English

**Notes:** 

Past grade distribution Total number of evaluated students: 111							
A B C D E FX							
35,14	28,83	10,81	9,91	11,71	3,6		
Lecturers: doc. Mgr. Lenka Filová, PhD., Mgr. Lívia Rosová, PhD.							
Last change: 2	1 06 2022						

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KRGRR/N-bZRG-031/22

Protection of the World Natural and Cultural Heritage

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 4.

**Educational level:** I.

**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	В	С	D	Е	FX
0,0	0,0	58,33	41,67	0,0	0,0	0,0

Lecturers: RNDr. Katarína Danielová, PhD.

Last change: 11.10.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KDPP/N-bUXX-038/22

Psychology for Teachers (1)

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 75

A	ABS	В	С	D	Е	FX
10,67	0,0	18,67	14,67	26,67	22,67	6,67

Lecturers: RNDr. Jana Ciceková, PhD., PhDr. ThLic. Peter Ikhardt, PhD.

Last change: 16.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KDPP/N-bUXX-039/22 | Psychology for Teachers (2)

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 2 / 2 per level/semester: 28 / 28

Form of the course: on-site learning

Number of credits: 4

Recommended semester: 2.

**Educational level:** I.

**Prerequisites:** PriF.KDPP/N-bUXX-038/22 - Psychology for Teachers (1)

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 48

A	ABS	В	С	D	Е	FX
8,33	0,0	20,83	31,25	14,58	16,67	8,33

Lecturers: RNDr. Jana Ciceková, PhD., PhDr. ThLic. Peter Ikhardt, PhD.

Last change: 16.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KRGRR/N-bZRG-013/22

Regional Geography Excursion (Foreign Countries)

**Educational activities:** 

Type of activities: excursion

**Number of hours:** 

per week: per level/semester: 10d Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester: 5.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 15

A	ABS	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** doc. RNDr. Daniel Gurňák, PhD., Mgr. Gabriel Zubriczký, PhD., doc. RNDr. František Križan, PhD., prof. RNDr. Ladislav Tolmáči, PhD., Mgr. Rastislav Cákoci, PhD., RNDr. Katarína Danielová, PhD., RNDr. Mgr. Anna Tolmáči, PhD.

**Last change:** 11.10.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KRGRR/N-bUGE-033/22 | Regions of Eurasia - Selected Issues

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 2 / 4 per level/semester: 28 / 56

Form of the course: on-site learning

**Number of credits:** 6

**Recommended semester:** 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 46

A	ABS	В	С	D	Е	FX
4,35	0,0	26,09	30,43	15,22	8,7	15,22

Lecturers: Mgr. Rastislav Cákoci, PhD., RNDr. Katarína Danielová, PhD., doc. RNDr. Daniel Gurňák, PhD.

Last change: 23.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

Course title:

FMFI.KMANM/1-UMA-131/22 Revision of Advanced Secondary-school Mathematics

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1.

**Educational level:** I.

### **Prerequisites:**

### **Course requirements:**

Ongoing evaluation: 2 written exams

Indicative rating scale: A 91%, B 81%, C 71%, D 61%, E 51%

Scale of assessment (preliminary/final): 100/0

# **Learning outcomes:**

After completing the course, students will master the apparatus of high school mathematics (basics of logic, basic concepts of set theory, the concept of function) at the level required to study some parts of university mathematics.

### Class syllabus:

Logic and sets, basic types of proofs. Functions and their basic properties. Linear and quadratic function.

### **Recommended literature:**

Matematika pre 1. ročník gymnázií : 1. časť / Zbyněk Kubáček. Bratislava : Slovenské pedagogické nakladateľstvo, 2009

Matematika pre 1. ročník gymnázií : 2. časť / Zbyněk Kubáček. Bratislava : Slovenské pedagogické nakladateľstvo, 2010

Matematika pre druhý ročník gymnázií : 1. časť / Zbyněk Kubáček. Bratislava : Orbis Pictus Istropolitana, 2009

Matematika pre 2. ročník gymnázií a 6. ročník gymnázií s osemročným štúdiom : 2. časť /

Zbyněk Kubáček. Bratislava: Orbis Pictus Istropolitana, 2010

Nová maturita : Matematika : Interná časť - ústna skúška / Pavol Černek, Zbyněk Kubáček.

Bratislava: Slovenské pedagogické nakladateľstvo, 2005

Matematika pre 3. ročník gymnázia a 7. ročník gymnázia s osemročným štúdiom : 1. časť /

Zbyněk Kubáček. Bratislava: Slovenské pedagogické nakladateľstvo, 2012

Matematika pre 3. ročník gymnázia a 7. ročník gymnázia s osemročným štúdiom : 2. časť /

Zbyněk Kubáček. Bratislava: Slovenské pedagogické nakladateľstvo, 2013

Matematika : 1 : zbierka úloh pre stredné školy / Iveta Kohanová ... [et al.]. Bratislava : Orbis

Pictus Istropolitana, 2011

Seminár z matematiky : 1. časť / Zbyněk Kubáček, Ján Žabka. Bratislava - Mapa Slovakia, 2017

# Languages necessary to complete the course:

Slovak, English

### **Notes:**

The course is primarily intended for teacher training students; students of other programs can enroll in it only with the consent of their guarantor.

# Past grade distribution

Total number of evaluated students: 248

A	В	С	D	Е	FX
23,79	19,76	16,53	18,55	14,92	6,45

Lecturers: doc. RNDr. Zbyněk Kubáček, CSc., PaedDr. Peter Vankúš, PhD.

Last change: 24.06.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KDPP/N-bXDI-006/22 Rhetoric **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 **Recommended semester:** 1., 2., 3., 4., 5., 6.. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 14 В C Α D E FX 42,86 42,86 7,14 7,14 0,0 0,0Lecturers: Mgr. Štefan Zolcer, PhD. Last change: 23.09.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bXTV-110/22 River rafting **Educational activities: Type of activities:** other **Number of hours:** per week: per level/semester: 3d Form of the course: on-site learning Number of credits: 1 Recommended semester: 2., 4., 6. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 6 A B  $\mathbf{C}$ D E FX 0,0 0,0 100,0 0,0 0,0 0,0

**Lecturers:** PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, Mgr. Kristína Vanýsková, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

PriF.KDPP/N-bUXX-042/22 | STEM Strategy in the Pre-service Teacher's Training

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

**Educational level:** I.

**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	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Radoslav Halko, PhD., Mgr. Milica Križanová, PhD.

Last change: 07.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bUXX-026/22

School Management

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 6.

**Educational level:** I.

**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	В	С	D	Е	FX
81,63	0,0	12,24	4,08	2,04	0,0	0,0

Lecturers: doc. RNDr. PaedDr. Zuzana Haláková, PhD.

Last change: 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-036/22

Selected Chapters from Social and Cultural Anthropology

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 5.

**Educational level:** I.

**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	В	С	D	Е	FX
50,0	0,0	50,0	0,0	0,0	0,0	0,0

Lecturers: Mgr. Juraj Majo, PhD.

Last change: 04.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-020/22

Selected Chapters from Sociology for Geographers

**Educational activities:** 

Type of activities: lecture

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 18

A	ABS	В	С	D	Е	FX
27,78	0,0	11,11	27,78	16,67	5,56	11,11

Lecturers: Mgr. Alena Rochovská, PhD.

Last change: 09.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

PriF.KEGD/N-bUGE-056/22 | Society, Economy, Space

**Course title:** 

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/3 per level/semester: 14/42

Form of the course: on-site learning

Number of credits: 4

**Recommended semester: 2.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 39

A	ABS	В	С	D	Е	FX
12,82	0,0	28,21	12,82	17,95	17,95	10,26

**Lecturers:** prof. RNDr. Ján Buček, CSc., Mgr. Ingrid Bučeková, PhD., doc. Mgr. Marcel Horňák, PhD., RNDr. Michal Klobučník, PhD., Mgr. Lucia Vršanská, PhD.

Last change: 14.09.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KEGD/N-bUGE-055/22

Statistics for Geography Teachers

**Educational activities:** 

Type of activities: practicals / lecture

**Number of hours:** 

per week: 1/2 per level/semester: 14/28

Form of the course: on-site learning

**Number of credits: 3** 

**Recommended semester:** 1.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 47

A	ABS	В	С	D	Е	FX
10,64	0,0	4,26	14,89	4,26	25,53	40,43

Lecturers: Mgr. Gabriela Nováková, PhD.

**Last change:** 11.11.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

**Course ID:** 

**Course title:** 

PriF.KTV/N-bUXX-206/22

Summer Physical-Education Training

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 1

Recommended semester: 2., 4.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 3

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Martin Mokošák, PhD., PaedDr. Vladimír Pajkoš, Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, Mgr. Kristína Vanýsková, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KTV/N-bXTV-108/22

Summer Physical-Education Training

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2., 4.

**Educational level:** I.

**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

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, Mgr. Kristína Vanýsková, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

FMFI.KTV/1-UXX-152/22 Summer Sports Camp

**Course title:** 

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 1

Recommended semester: 2., 4.

**Educational level:** I.

**Prerequisites:** 

**Antirequisites:** FMFI.KTV/1-MXX-217/18

### **Course requirements:**

The final evaluation of the subject includes the completion of all compulsory disciplines and the assessment of the acquired abilities to perform individual disciplines independently, methodically correct, or with instruction. At least 91% of points must be obtained to obtain an A rating, at least 81% to obtain a B rating, at least 71% to obtain a C rating, at least 61% to obtain a D rating and at least 50% to obtain an E rating. Credits will not be awarded to a student who scores less than 50% of the points.

### **Learning outcomes:**

Gain basic theoretical knowledge and practical skills from hiking, living and physical activities in nature. Masters the theoretical basis for the selection of a suitable natural area for the implementation of individual sports in nature. The student is able to characterize individual sports in nature and forms of their implementation. Masters the theoretical basis of didactics of training and improving movement techniques in selected outdoor sports. Masters the theoretical basis of selection, setting, use and maintenance of basic material equipment for selected sports in nature.

### Class syllabus:

A comprehensive overview of theoretical and practical problems in tourism, stay and physical activities in nature and the prerequisites for their solution. Outdoor sports in connection with the development of modern society. Impact of outdoor sports on the environment, regional development, tourism and the economy. Historical aspects of outdoor sports and their position in human society. Basic division of outdoor sports. (Summer, winter, water, board, technical, motor, Olympic, ...) Institutional provision of outdoor sports in our country and in the world. The structure of sports performance of selected outdoor sports. The structure of sports performance in canoeing, road and mountain biking. Training and improvement of kayaking and canoeing, road and mountain biking. Training and improvement of shooting with air weapons.

#### Recommended literature:

1. Židek, J.: Turistika a ochrana života a zdravia. Bratislava. FTVŠ UK 2013, 123 s. ISBN

#### 9788022333986

- 2. Michal, J.: Vybrané kapitoly zo sezónnych činností. PF UMB 1998 str.108 ISBN 80-85162-99-7
- 3. Neuman a kol. : Turistika a sporty v přírodě. Praha, Portál 2000.
- 4. Žídek, J.: Turistika. Bratislava, FTVŠ UK 2004.
- 5. Kompán, J.- Gorner, K. 2007. Možnosti uplatnenia turistiky a pohybových aktivít v prírode. FHV

### UMB ISBN 80-8083-365-7

- 6. Stejskal, T.: Vodná turistika. Prešov 1999.
- 7. Sýkora, B. a kol.: Turistika a sporty v prírode. SPN Praha, 1986.
- 8. Zajac a kol.: Športy a turistika na vode. Šport, Bratislava,

# Languages necessary to complete the course:

Slovak

### Notes:

KTVŠ will provide sports and material equipment

# Past grade distribution

Total number of evaluated students: 5

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Tomáš Kuchár, PhD., PaedDr. Dana Mašlejová, Mgr. Martin Dovičák, PhD., Mgr. Jana Leginusová, Mgr. Tomáš Lovecký, Mgr. Ladislav Mókus, Mgr. Branislav Nedbálek, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Viktor Sládok

Last change: 16.06.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KDMFI/1-UXX-122/22

Teacher Training - Practical Part

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 3d Form of the course: on-site learning

Number of credits: 1

Recommended semester: 2., 4.

**Educational level:** I.

Prerequisites: FMFI.KDMFI/1-UXX-121/22 - Teacher Training - Theoretical Part

## **Course requirements:**

Ongoing evaluation: implementation and evaluation of activities during the concentration

Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60%

Scale of assessment (preliminary/final): 100/0

## **Learning outcomes:**

Students will be able to implement their motivational activities during the training, prepared during the course "Teacher training - theoretical training". We will then evaluate these activities and suggest possible modifications. The implementation of their own activities and their subsequent reflection will provide students with valuable experience for the preparation of their future educational activities aimed at motivating the teaching of mathematics, physics, computer science and other science subjects.

## Class syllabus:

- Popularization lectures
- Didactic games
- Didactic competitions
- Motivational activities focused on mathematics, physics, computer science and other science subjects suitable for camps and schools in nature.

### Recommended literature:

Didactic games in mathematics / Peter Vankúš. Bratislava: KEC FMFI UK, 2012

Child, school and mathematics: Constructivist approaches to teaching / Milan Hejný, František

Kuřina. Prague: Portal, 2001

Mathematical feeling / Jo Boalerová. Bratislava: Tatran, 2016

Own electronic materials published via the subject's website (course in LMS Moodle)

### Languages necessary to complete the course:

Slovak

**Notes:** 

Past grade distribution Total number of evaluated students: 12								
A B C D E					FX			
83,33	0,0	0,0	0,0	0,0	16,67			
Lecturers: Pae	Lecturers: PaedDr. Peter Vankúš, PhD.							
Last change: 22.06.2022								
Approved by:	Approved by:							

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID: Course title:

FMFI.KDMFI/1-UXX-121/22 | Teacher Training - Theoretical Part

**Educational activities:** 

Type of activities: seminar

**Number of hours:** 

per week: 2 per level/semester: 28 Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1., 3.

**Educational level:** I.

### **Prerequisites:**

### **Course requirements:**

**Learning outcomes:** 

Continuous assessment: proposal of motivational activities, output in front of the board Indicative assessment scale: A 94%, B 86%, C 79%, D 70%, E 60%, Fx <60% Scale of assessment (preliminary/final): 100/0

### - Seare of assessment (premimary/

Students will get acquainted with some activating methods and motivational activities suitable for teaching mathematics, physics, computer science and other science subjects. Based on this, they will create a proposal of their own activities, which they will present in front of their classmates and thus gain valuable experience for their future teaching practice.

# Class syllabus:

- Popularization lectures
- Didactic games
- Didactic competitions
- Motivational activities focused on mathematics, physics, informatics and other science subjects suitable for camps and schools in nature

### **Recommended literature:**

Didactic games in mathematics / Peter Vankúš. Bratislava: KEC FMFI UK, 2012

Child, school and mathematics: Constructivist approaches to teaching / Milan Hejný, František

Kuřina. Prague: Portal, 2001

Mathematical feeling / Jo Boalerová. Bratislava: Tatran, 2016

Own electronic materials published via the subject's website (course in LMS Moodle)

### Languages necessary to complete the course:

Slovak

Notes:

Past grade distribution Total number of evaluated students: 19								
A	FX							
84,21	0,0	0,0	0,0	0,0	15,79			
Lecturers: Pae	Lecturers: PaedDr. Peter Vankúš, PhD.							
Last change: 22.06.2022								
Approved by:	Approved by:							

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bUXX-023/22

Teaching Practice 1 (A)

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 52

A	ABS	В	С	D	Е	FX
63,46	0,0	21,15	11,54	0,0	1,92	1,92

Lecturers: doc. RNDr. Štefan Karolčík, PhD., prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., Mgr. Milica Križanová, PhD., PaedDr. Anna Drozdíková, PhD., doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs, RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., doc. RNDr. Katarína Pavličková, CSc., RNDr. Hubert Žarnovičan, PhD.

**Last change:** 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bUXX-024/22

Teaching Practice 1 (B)

**Educational activities:** 

Type of activities: practice

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 6.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 63

A	ABS	В	С	D	Е	FX
36,51	0,0	31,75	15,87	3,17	7,94	4,76

Lecturers: doc. RNDr. Štefan Karolčík, PhD., prof. RNDr. Miroslav Prokša, CSc., doc. RNDr. PaedDr. Zuzana Haláková, PhD., Mgr. Milica Križanová, PhD., PaedDr. Anna Drozdíková, PhD., doc. PaedDr. Elena Čipková, PhD., PhDr. Michael Fuchs, RNDr. Peter Likavský, CSc., RNDr. Henrieta Mázorová, PhD., doc. RNDr. Katarína Pavličková, CSc., RNDr. Hubert Žarnovičan, PhD., M. A. Linda Steyne, PhD., Mgr. Monika Šajánková, PhD.

**Last change:** 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KDPP/N-bXDI-012/22

Theoretical Foundations of Education

**Educational activities:** 

Type of activities: lecture / seminar

**Number of hours:** 

per week: 1 / 1 per level/semester: 14 / 14

Form of the course: on-site learning

Number of credits: 2

**Recommended semester: 3.** 

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 70

A	ABS	В	С	D	Е	FX
24,29	0,0	32,86	21,43	12,86	8,57	0,0

Lecturers: PhDr. ThLic. Peter Ikhardt, PhD.

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KZ/N-XXXX-006/21 Theory of species **Educational activities:** Type of activities: seminar **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 2., 4., 6. **Educational level:** I., II. **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 Α В  $\mathbf{C}$ D E FX 75,61 14,63 2,44 0,0 0,0 7,32 Lecturers: doc. Mgr. Peter Vďačný, Dr.rer.nat Last change: 07.11.2022 Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KEM/N-bEXX-160/22 We are Moving towards Sustainability **Educational activities:** Type of activities: lecture **Number of hours:** per week: 2 per level/semester: 28 Form of the course: on-site learning Number of credits: 2 Recommended semester: 5. **Educational level:** I. **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  $\mathbf{C}$ Α В D E FX 100,0 0,0 0,0 0,0 0,0 0,0

Lecturers: doc. RNDr. Katarína Pavličková, CSc., RNDr. Božena Šerá, PhD., RNDr. Hubert

Žarnovičan, PhD.

Last change: 27.09.2022

Approved by:

Academic year: 2022/2023 University: Comenius University Bratislava Faculty: Faculty of Natural Sciences **Course ID: Course title:** PriF.KTV/N-bUXX-201/22 Winter Physical-Education Training **Educational activities:** Type of activities: training session **Number of hours:** per week: per level/semester: 5d Form of the course: on-site learning Number of credits: 1 **Recommended semester:** 1., 3., 5. **Educational level:** I. **Prerequisites: Course requirements: Learning outcomes:** Class syllabus: **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 18 Α В  $\mathbf{C}$ D E FX 66,67 0,0 0,0 0,0 0,0 33,33 Lecturers: Mgr. Martin Mokošák, PhD. Last change: 01.08.2022

Strana: 165

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KTV/N-bXTV-107/22

Winter Physical-Education Training

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 2

**Recommended semester:** 1., 3., 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 140

A	В	С	D	Е	FX
59,29	0,0	0,0	0,0	0,0	40,71

**Lecturers:** PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, Mgr. Kristína Vanýsková

Last change: 01.08.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

FMFI.KTV/1-UXX-151/22

Winter Sports Camp

**Educational activities:** 

Type of activities: training session

**Number of hours:** 

per week: per level/semester: 5d Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 1., 3., 5.

**Educational level:** I.

**Prerequisites:** 

**Antirequisites:** FMFI.KTV/1-MXX-216/18

### **Course requirements:**

The final evaluation of the subject includes the completion of all compulsory disciplines and the assessment of the acquired abilities to perform individual disciplines independently, methodically correct, or with instruction. At least 91% of points must be obtained to obtain an A rating, at least 81% to obtain a B rating, at least 71% to obtain a C rating, at least 61% to obtain a D rating and at least 50% to obtain an E rating. Credits will not be awarded to a student who scores less than 50% of the points.

### **Learning outcomes:**

The student knows the history of skiing in the world and in Slovakia. He masters the nomenclature, classification scales of licenses, material equipment, knowledge of the terrain and movement in winter in various weather conditions. He knows the fitness, technical training in downhill skiing. Masters the practical skills of using and maintaining the equipment. Controls the specific way of movement in mountain and ski terrain, ways of calling for help. He knows the ways of teaching instruction and the work of an instructor in a ski school.

### Class syllabus:

History, terminology, classification

Material and technical equipment

Principles of safety in the mountains

Basic skiing skills - improving technique

Visit to the ski service in the resort

### **Recommended literature:**

- 1. BLAHUTOVÁ, A. (2002). Technika a metodika zjazdového lyžovania.
- 2. BLAHUTOVÁ, A.(2017). Technika a didaktika lyžovanie, Učebné texty, KU, Ružomberok 2017
- 3. EGYHÁZY, A. (1988). Lyžovanie Základný lyžiarsky výcvik. Učebné texty pre školenie cvičiteľov. Šport, Bratislava 1988.

- 4. HELLEBRANDT, V. (2002). Technika a metodika carvingových oblúkov v zjazdovom lyžovaní. Vysokoškolské učebné texty. FTVŠ Bratislava 2002.
- 5. PŘÍBRAMSKÝ, M. (2002). Česká škola lyžování. Carving. Praha: UK FTVS, 2002.
- 6. SOSNA, I. Carving ad 1972. (2006). Snow 2006, č.25, s.32 -33.
- 7. SOUKUP, J. (1991): Lyžování podle alpských lyžařských škol. Praha, Olympia, 1991.
- 8. ŠTUMBAUER, J. VOBR, R. (2007). Carving. České Budejovice: KOPP, 2007, 125 s.
- 9. ŽÍDEK, J. et al. (1993). Lyžovanie. Vysokoškolské skriptá. Bratislava, UK 1993

# Languages necessary to complete the course:

Slovak

#### Notes:

KTVŠ does not rent ski equipment.

### Past grade distribution

Total number of evaluated students: 16

A	В	С	D	Е	FX
100,0	0,0	0,0	0,0	0,0	0,0

**Lecturers:** Mgr. Tomáš Kuchár, PhD., PaedDr. Dana Mašlejová, Mgr. Martin Dovičák, PhD., Mgr. Jana Leginusová, Mgr. Tomáš Lovecký, Mgr. Ladislav Mókus, Mgr. Branislav Nedbálek, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Viktor Sládok

Last change: 16.06.2022

Approved by:

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:

**Course title:** 

PriF.KTV/N-bXTV-109/22

Ďumbier mountain hiking

**Educational activities:** 

Type of activities: other

**Number of hours:** 

per week: per level/semester: 3d Form of the course: on-site learning

Number of credits: 1

**Recommended semester:** 1., 3., 5.

**Educational level:** I.

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 155

A	В	С	D	Е	FX
64,52	0,0	0,0	0,0	0,0	35,48

**Lecturers:** PaedDr. Vladimír Hubka, Mgr. Miriam Kirchmayerová, PhD., Mgr. Martin Mokošák, PhD., Mgr. Igor Remák, PhD., PaedDr. Mgr. Lenka Vandáková, Mgr. Kristína Vanýsková, Mgr. Denisa Šeďová

Last change: 01.08.2022

Approved by: