Course descriptions

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COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-126/22	Antibiotics

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.

Educational level: 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	B	C	D	E	FX
29,41	29,41	17,65	11,76	11,76	0,0

Lecturers: doc. RNDr. Jana Korduláková, PhD., prof. RNDr. Katarína Mikušová, DrSc.

Last change: 16.10.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-112/22	Applied Biochemistry and Biotechnologies

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.

Educational level: 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: 1

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

Lecturers: Ing. Pavol Sulo, CSc.

Last change: 12.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-127/22	Basics of Neurobiology

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.

Educational level: 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: 51

A	B	C	D	E	FX
94,12	5,88	0,0	0,0	0,0	0,0

Lecturers: MUDr. RNDr. Dominika Fričová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

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.

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: 1110

A	B	C	D	E	FX
75,23	11,17	5,95	2,79	0,81	4,05

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

Last change: 07.11.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2022/2023	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KBCh/N-bCHBI-960/22	**Course title:** Biochemistry
Number of credits: 3	
Educational level: II.	
State exam syllabus:	
Last change: 02.02.2023	
Approved by:	

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-101/22	Biochemistry and Cell Biology Advanced Laboratory

Educational activities:
Type of activities: practicals
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: 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: 27

A	B	C	D	E	FX
3,7	14,81	29,63	40,74	11,11	0,0

Lecturers: Ing. Martina Neboháčová, PhD., doc. RNDr. Igor Zeman, PhD., doc. RNDr. Marek Mentel, PhD., Mgr. Stanislav Huszár, PhD., Mgr. Petra Chovančíková, PhD., Mgr. Filip Brázdovič, PhD.

Last change: 13.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-111/22	Biochemistry and Molecular Biology Elective Laboratory Practice

Educational activities:
Type of activities: practice
Number of hours:
per week: **per level/semester:** 1t
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 1.

Educational level: 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: 16

A	B	C	D	E	FX
93,75	6,25	0,0	0,0	0,0	0,0

Lecturers: Mgr. Stanislav Huszár, PhD.

Last change: 12.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
LF-PriF.KBCh/N-mCBI-108/22	Biochemistry of Physiological Functions (1)

Educational activities:
Type of activities: lecture / seminar
Number of hours:
per week: 3 / 1 **per level/semester:** 42 / 14
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 1.

Educational level: 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: 18

A	B	C	D	E	FX
22,22	5,56	22,22	38,89	11,11	0,0

Lecturers: doc. RNDr. Monika Ďurfinová, PhD., prof. MUDr. Ladislav Turecký, CSc.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
LF-PriF.KBCh/N-mCBI-109/22	Biochemistry of Physiological Functions (2)

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: 2.

Educational level: 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: 10

A	B	C	D	E	FX
0,0	20,0	20,0	10,0	50,0	0,0

Lecturers: doc. RNDr. Monika Ďurfinová, PhD., prof. MUDr. Ladislav Turecký, CSc.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-100/22	Bioenergetics

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: 5

Recommended semester: 1.

Educational level: 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: 26

A	B	C	D	E	FX
11,54	3,85	26,92	30,77	26,92	0,0

Lecturers: doc. RNDr. Marek Mentel, PhD., doc. RNDr. Igor Zeman, PhD.

Last change: 19.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
LF-PriF.KBCh/N-mCBI-110/22	Clinical Biochemistry and Pathobiochemistry (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: 2.

Educational level: 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: 10

A	B	C	D	E	FX
0,0	0,0	40,0	50,0	10,0	0,0

Lecturers: prof. MUDr. Ladislav Turecký, CSc., doc. RNDr. Monika Ďurfinová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
LF-PriF.KBCh/N-mCBI-125/22	Clinical Biochemistry and Pathobiochemistry (2)

Educational activities:
Type of activities: lecture / seminar
Number of hours:
per week: 3 / 1 **per level/semester:** 42 / 14
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 3.

Educational level: 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	B	C	D	E	FX
4,55	18,18	22,73	13,64	40,91	0,0

Lecturers: prof. MUDr. Ladislav Turecký, CSc., doc. RNDr. Monika Ďurfinová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-120/22	Crystallography of Proteins and Nucleic Acids

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: 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: 3

A	B	C	D	E	FX
33,33	33,33	33,33	0,0	0,0	0,0

Lecturers: RNDr. Ľubica Urbániková, CSc.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-078/22	Deutsch für Naturwissenschaftler A1 (začiatočníci)

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: 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: 23

A	B	C	D	E	FX
95,65	0,0	0,0	0,0	0,0	4,35

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-080/22	Deutsch für Naturwissenschaftler A2 (začiatočníci)

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: 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: 14

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

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-079/22	Deutsch für Naturwissenschaftler B1 (pokročilí)

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: 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: 15

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

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-081/22	Deutsch für Naturwissenschaftler B2 (pokročilí)

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: 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: 5

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

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-096/22	Diploma Thesis 1

Educational activities:
Type of activities: practicals
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: 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: 26

A	B	C	D	E	FX
61,54	30,77	7,69	0,0	0,0	0,0

Lecturers: prof. RNDr. Katarína Mikušová, DrSc., Mgr. Júlia Zemanová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-097/22	Diploma Thesis 2

Educational activities:
Type of activities: practicals / seminar
Number of hours:
per week: 5 / 2 **per level/semester:** 70 / 28
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: 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: 13

A	B	C	D	E	FX
84,62	15,38	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Marek Mentel, PhD., Mgr. Júlia Zemanová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-098/22	Diploma Thesis 3

Educational activities:
Type of activities: practicals / seminar
Number of hours:
per week: 10 / 2 **per level/semester:** 140 / 28
Form of the course: on-site learning

Number of credits: 12

Recommended semester: 3.

Educational level: 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: 27

A	B	C	D	E	FX
96,3	3,7	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Jana Korduláková, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-099/22	Diploma Thesis 4

Educational activities:
Type of activities: practicals / seminar
Number of hours:
per week: 12 / 2 **per level/semester:** 168 / 28
Form of the course: on-site learning

Number of credits: 14

Recommended semester: 4.

Educational level: 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: 27

A	B	C	D	E	FX
59,26	33,33	7,41	0,0	0,0	0,0

Lecturers: prof. RNDr. Katarína Mikušová, DrSc.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-076/22	EAP 1/English for Academic 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: 1.

Educational level: 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: 173

A	B	C	D	E	FX
87,28	10,4	1,16	0,0	0,0	1,16

Lecturers: PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-077/22	EAP 2/English for Academic 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: 2.

Educational level: 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: 139

A	B	C	D	E	FX
89,21	7,91	0,72	0,72	0,0	1,44

Lecturers: PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-094/22	Elective professional laboratory practice in biochemistry 1

Educational activities:
Type of activities: practice
Number of hours:
per week: **per level/semester:** 2t
Form of the course: on-site learning

Number of credits: 6

Recommended semester: 1.

Educational level: 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: 19

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

Lecturers: prof. RNDr. Katarína Mikušová, DrSc., Mgr. Júlia Zemanová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-095/22	Elective professional laboratory practice in biochemistry 2

Educational activities:
Type of activities: practice
Number of hours:
per week: **per level/semester:** 4t
Form of the course: on-site learning

Number of credits: 9

Recommended semester: 3.

Educational level: 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	B	C	D	E	FX
100,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Katarína Mikušová, DrSc., Mgr. Júlia Zemanová, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-105/22	Enzymology

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: 5

Recommended semester: 2.

Educational level: 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: 14

A	B	C	D	E	FX
28,57	50,0	14,29	0,0	7,14	0,0

Lecturers: prof. RNDr. Anton Horváth, CSc., RNDr. Ingrid Sveráková, PhD.

Last change: 30.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KGe/N-mBGE-130/22	Frontiers in genetics and molecular biology/Aktuálne výzvy genetiky a molekulárnej biológie

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.

Educational level: II.

Prerequisites:

Course requirements:
Active participation at the sessions, discussions within the group of students and with the teacher. At the end of the course the student will write a short minireview on the topic selected from those discussed during the semester. The minireview will be handed to the teacher in an electronic form one week prior the oral exam, i.e. discussion about the minireview and the chosen topic. Weights of the parts of the exam: 50% minireview – 50% oral exam. For passing the exam i tis necessary to gain at least 50% of the points. Grading: 60-69 % = E; 69-77 % = D; 77-85 % = C; 85-92 % = B; 92-100 % = A.
The course is provided on-site. If on-site form is not possible, the course will be provided online.

Learning outcomes:
Active participation at the sessions, discussions within the group of students and with the teacher. At the end of the course the student will write a short minireview on the topic selected from those discussed during the semester. The minireview will be handed to the teacher in an electronic form one week prior the oral exam, i.e. discussion about the minireview and the chosen topic. Weights of the parts of the exam: 50% minireview – 50% oral exam. For passing the exam i tis necessary to gain at least 50% of the points. Grading: 51-60%=E; 61-70%=D; 71-80%=C; 81-90%=B; 91-100%=A.
The course is provided on-site. If on-site form is not possible, the course will be provided online.

Class syllabus:
As a source of the presentations, we will employ a web portal iBiology.org, containing a large database of exciting talks from prominent speakers (including Nobel prize winners). The talks are separated into 2-3 parts, and they are usually accompanied by English subtitles that make it easier to follow the speaker. The first part presents a general introduction into the field, the subsequent parts are dedicated to the experimental results usually leading to important
discoveries. The teacher will provide links to the corresponding talks. The students will be asked to watch the first (general) part at home. Teacher will post a list of questions related to the talk before the corresponding session. It is expected that the students will prepare their own list of questions. At the beginning of each session the whole group will watch the second part of the talk (30-45 min depending on the talk). Then the students will discuss their questions and comments within

groups (3-6 students per group, 15 min). The teacher will then moderate the discussion and answer students' questions (if possible). Combining all the above activities will have at least two major benefits: We will (1) learn new things from contemporary molecular and cell biology and (2) train the discussion in scientific English. The
course will employ a combination of five essential learning tools: (1) choice; (2) collaboration; (3) communication; (4) critical thinking; and (at least to some extent) (5) creativity. Examples of the topics: The molecular biology of gene regulation; Mechanisms of chromosomal DNA replication; Epigenetics: Why your DNA isn't enough; Consequences of aneuploidy; Protein folding, prions and disease; Self-organization in biology; The evolutionary design of proteins; Telomeres and human disease; Protein localisation inside cells; Understanding cell shape; mTOR and the regulation of growth; Cell cycle regulation; The spatial organization of bacterial cells; Mitochondria, metabolism, and cell behavior; The secretory pathway; The ubiquitin-proteasome system; Kinetochore and chromosome seggregation; Yeast sex; The genetic basis of evolutionary change in morphology; Genetics of aging; Neurodegenerative disease: The coming epidemic; Genes, the brain, and behavior.

Recommended literature:

Alberts, B., Johnson, A., Lewis, J., Raff, M., Roberts, K., Walter, P. (2008). Molecular Biology of the Cell, 5th Edition, Garland Publishing.
Lodish, H., Berk, A., Keiser, C.A., Kriegere, M., Scott, M.P., Bretcher, A., Ploegh, H., Matsudaira, P. (2007). Molecular Cell Biology. 6th Edition, W.H. Freeman.
Educational portal: www.ibiology.org
The web site of the Nobel Prize: www.nobelprize.org

Languages necessary to complete the course:

English

Notes:

The additional material for the course is available at moodle.uniba.sk. The online discussions, if necessary, will be held in a dedicated MS Teams course. The course replaces Introduction to Molecular Biology.

Past grade distribution

Total number of evaluated students: 10

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

Lecturers: prof. RNDr. Ľubomír Tomáška, DrSc.

Last change: 22.09.2022

Approved by:

COURSE DESCRIPTION

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.

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: 1090

A	B	C	D	E	FX
92,84	0,92	0,0	0,0	0,0	6,24

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

Last change: 15.05.2021

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-119/22	Genomics

Educational activities:
Type of activities: lecture
Number of hours:
per week: 2 **per level/semester:** 28
Form of the course: on-site learning

Type, volume, methods and workload of the student - additional information
Form of Study: lecture
Number of contact hours:
per week: 2 per level/semester: 26
Form of the course: on-site learning, remote

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
There will be a written test during the examination period of the semester. The grading scale is as follows: A – 92%, B – 84%, C – 76%, D – 68%, E – 60%. Credits will not be awarded to a student who gets less than 60% from the test.
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
During the course, students will gain an overview of experimental strategies that allow them to determine the complete sequences of genomes, identify and annotate genes and then examine their biological functions. After completing the course, students will learn the basics of genomics, transcriptomics, proteomics, interactomics, epigenomics, systems and synthetic biology, functional and comparative analysis of complete genomes and get acquainted with the importance of these disciplines for modern biomedical research and biotechnological applications.

Class syllabus:
Genomics and its importance for modern biomedical research. From individual genes to complete genomes. Physical genome mapping techniques. Experimental strategies for complete genome sequencing projects (from bacterial genomes to human genomes). Genomics and personalized medicine. "Personal genomes" and ethical aspects of genomics. Personalized therapy. Molecular phylogenomics. Paleogenomics. Metagenomics. Determination of DNA sequences of complex biological communities. Analysis of the dynamics of microorganism communities.
New approaches in DNA sequencing technology. From chemical and enzymatic methods to automatic DNA analyzers. Nucleic acid sequencing methods by SBS, SBL and SBH approaches. Nanopore sequencing.

Principles of annotation and sequence analysis of complete genomes. Categorization of genes and functional elements in genomes. Bioinformatics principles of identification of new genes. Genes and genomic databases and datamining.
Comparative and evolutionary genomics. Evolutionary processes taking place at the genome level. Functional analysis of complete genomes. Principles of transcriptome and proteome analysis. Epigenomics.
Introduction to systems biology and mathematical modeling. Biological systems as computer models. Fundamentals of mathematical models in biology.
Synthetic biology. The concept of minimal genome. Methods of synthetic biology. DNA synthesis strategies, from oligonucleotide preparation to genome synthesis. Synthetic microorganisms. Biotechnological applications of synthetic organisms.

Recommended literature:

Nosek, J. a kol. (2013) Genomics (in Slovak). CreateSpace Independent Publishing Platform.
Brown, T.A. (2002) Genomes. 2nd. edition. Garland Science.
Watson, J.D. a kol. (2007) Recombinant DNA: Genes and Genomes – A short course. 3rd edition. CSHL Press.

Languages necessary to complete the course:

Slovak in combination with English (textbooks in English)

Notes:

the course is provided only in the summer semester

Past grade distribution

Total number of evaluated students: 16

A	B	C	D	E	FX
31,25	31,25	12,5	0,0	12,5	12,5

Lecturers: prof. RNDr. Jozef Nosek, DrSc., Mgr. Peter Baráth, PhD., doc. Mgr. Bronislava Brejová, PhD., Mgr. Jaroslav Budiš, PhD., doc. Mgr. Richard Kollár, PhD., Ing. Martina Neboháčová, PhD., prof. RNDr. Ľubomír Tomáška, DrSc., doc. RNDr. Ivan Valent, CSc., doc. Mgr. Tomáš Vinař, PhD.

Last change: 07.10.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KRGRR/N-XXXX-001/21	Geography of the World in the 21.st century

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.

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: 88

A	B	C	D	E	FX
81,82	4,55	5,68	1,14	1,14	5,68

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:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KGP/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.

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: 44

A	B	C	D	E	FX
86,36	0,0	0,0	0,0	11,36	2,27

Lecturers: prof. RNDr. Roman Aubrecht, Dr., prof. 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:

COURSE DESCRIPTION

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.

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: 555

A	B	C	D	E	FX
90,27	0,0	0,54	0,0	0,0	9,19

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:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KEM/N-mXXX-003/22	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: 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: 25

A	B	C	D	E	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: 24.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KEM/N-mXXX-004/22	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: 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: 10

A	B	C	D	E	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: 24.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-106/22	Laboratory practice

Educational activities:
Type of activities: practice
Number of hours:
per week: **per level/semester:** 3t
Form of the course: on-site learning

Number of credits: 9

Recommended semester: 2.

Educational level: 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: 13

A	B	C	D	E	FX
69,23	23,08	7,69	0,0	0,0	0,0

Lecturers: prof. RNDr. Katarína Mikušová, DrSc., Mgr. Júlia Zemanová, PhD.

Last change: 16.10.2022

Approved by:

COURSE DESCRIPTION

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.

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: 954

A	B	C	D	E	FX
90,04	0,1	0,0	0,0	0,1	9,75

Lecturers: RNDr. Martina Zvaríková, PhD., prof. RNDr. Pavel Dlapa, PhD., RNDr. Malvína Reiffers 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:

STATE EXAM DESCRIPTION

Academic year: 2022/2023	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KBCh/N-mOBH-100/22	**Course title:** Master's Thesis Defence
Number of credits: 10	
Educational level: II.	
State exam syllabus:	
Last change: 07.11.2022	
Approved by:	

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF-FMFI.KI/2-AIN-501/00	Methods in Bioinformatics

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: 6

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Antirequisites: FMFI.KAI+KI/1-BIN-301/15

Course requirements:
Homework assignments (30%), group project (10%), individual project (40%), weekly quizzes (10%), activity at practicals (10%). Grades: A 90%, B 80%, C 70%, D 60%, E 50%. More information on the course website.
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
Students will be familiar with basic problems and methods in bioinformatics; they will be able to choose an appropriate method for a given biological problem and to interpret its results.

Class syllabus:
Basic concepts from probability, algorithms and machine learning. Sequencing and assembling genomes. Gene finding. Sequence alignment. Evolutionary models and phylogenetic trees. Comparative and population genomics. RNA structure. Motif finding and gene expression analysis. Protein structure and function. Selected current topics. Life science students will focus on understanding and correct application of these methods on real data.

Recommended literature:
Biological sequence analysis : Probabilistic models of proteins and nucleic acids / Richard Durbin ... [et al.]. Cambridge : Cambridge University Press, 1998
Understanding bioinformatics / Marketa Zvelebil, Jeremy O. Baum. New York : Garland Science, 2008

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution Total number of evaluated students: 97					
A	B	C	D	E	FX
45,36	24,74	16,49	8,25	4,12	1,03
Lecturers: doc. Mgr. Bronislava Brejová, PhD., doc. Mgr. Tomáš Vinař, PhD.					
Last change: 27.10.2023					
Approved by:					

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-107/22	Molecular Biology of the Cell (2)

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: 5

Recommended semester: 2.

Educational level: 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: 29

A	B	C	D	E	FX
10,34	27,59	10,34	27,59	17,24	6,9

Lecturers: doc. Mgr. Peter Polčic, PhD., Mgr. Katarína Gaplovská, PhD., doc. RNDr. Marek Mentel, PhD., prof. RNDr. Ľubomír Tomáška, DrSc., doc. RNDr. Ivan Valent, CSc., doc. RNDr. Igor Zeman, PhD.

Last change: 12.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-118/22	Molecular Biology of the Cell (2) - Seminar

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: 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: 34

A	B	C	D	E	FX
52,94	38,24	5,88	0,0	0,0	2,94

Lecturers: doc. Mgr. Peter Polčic, PhD., Mgr. Filip Červenák, PhD., Mgr. Katarína Gaplovská, PhD.

Last change: 12.09.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2022/2023	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KBCh/N-CHBI-962/22	**Course title:** Molecular and Cell Biology
Number of credits: 2	
Educational level: II.	
State exam syllabus:	
Last change: 02.02.2023	
Approved by:	

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KGe/N-mBGE-101/22	Molecular biology of the cell (1)

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: 5

Recommended semester: 1.

Educational level: 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: 66

A	B	C	D	E	FX
22,73	22,73	9,09	15,15	22,73	7,58

Lecturers: prof. RNDr. Ľubomír Tomáška, DrSc., prof. RNDr. Jozef Nosek, DrSc., Ing. Martina Neboháčová, PhD., doc. RNDr. Igor Zeman, PhD.

Last change: 22.09.2022

Approved by:

COURSE DESCRIPTION

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.

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: 36

A	B	C	D	E	FX
27,78	41,67	13,89	2,78	0,0	13,89

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:

COURSE DESCRIPTION

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.

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: 96

A	B	C	D	E	FX
93,75	0,0	0,0	0,0	0,0	6,25

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:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-107/22	Physical Education

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: 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: 219

A	B	C	D	E	FX
95,89	0,46	0,0	0,91	0,46	2,28

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 Strečanská

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-110/22	Physical Education 10

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: 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: 176

A	B	C	D	E	FX
97,73	0,57	0,57	0,0	0,0	1,14

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 Strečanská

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-108/22	Physical Education 8

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: 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: 133

A	B	C	D	E	FX
96,99	0,75	0,0	0,0	0,0	2,26

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 Strečanská

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-109/22	Physical Education 9

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: 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: 245

A	B	C	D	E	FX
97,55	0,0	0,41	0,0	0,0	2,04

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 Strečanská

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

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.

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: 839

A	B	C	D	E	FX
63,77	24,43	6,2	0,0	2,38	3,22

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

Last change: 30.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KRGRR/N-XXXX-002/21	Practical Geography for Natural Scientists

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.

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: 58

A	B	C	D	E	FX
84,48	0,0	0,0	0,0	0,0	15,52

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:

COURSE DESCRIPTION

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.

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: 185

A	B	C	D	E	FX
77,3	7,57	4,32	3,24	1,08	6,49

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:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-092/22	Principles of Cell Biology

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

Type, volume, methods and workload of the student - additional information
Form of Study: lecture / seminar
Number of contact hours:
per week: 2/2 per level/semester: 26 / 26
Form of the course: on-site learning, remote

Number of credits: 4

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
There will be regular written tests during the semester. Credits will not be awarded to a student who gets less than 60% of the total marks in these tests. The subject will be completed by oral exam. The evaluation will be awarded as follows: A - excellent results, B - above average work, C - normal reliable work, D - acceptable results, E - results meeting the minimum criteria, Fx - insufficient results (unacceptably weak knowledge corresponding to less than 60% of the required subject range).
Scale of assessment (preliminary/final): 0 / 100

Learning outcomes:
After completing the course, students will have an overview of the internal organization of prokaryotic and eukaryotic cells and the basic biological processes that take place in individual cell compartments. Emphasis is placed on the importance of biological membranes, intracellular compartmentalization and key molecular processes operating in cells.

Class syllabus:
Complex organization of eukaryotic cell. History and key discoveries of cell biology. Characteristic properties of eukaryotic cells. Comparison of ultrastructure of prokaryotic and eukaryotic cells. Importance of intracellular compartmentalization. The origin of the eukaryotic cell.
The role of biological membranes in the eukaryotic cell. Membrane structure and function. Membrane transport. Vector processes bound to membranes. The role of membranes in nerve signal transmission.
Cell nucleus. Ultrastructure and dynamics of the cell nucleus, nuclear membrane, nuclear pores, nucleolus. Chromosomes and chromosomal territories. Histones and histone-like proteins. Eukaryotic genome dynamics. Genome replication and repair.

Transcription and principles of gene expression control. Levels of gene expression control in prokaryotic and eukaryotic cells. Transcriptional control and post-transcriptional RNA processing. Ribosome translation and function. Ribosome subunits. Ribosomal RNA and protein components of the ribosome. Basic steps in the regulation of proteosynthesis. Intracellular localization of proteosynthesis. Protein distribution in the cell. Posttranslational fate of proteins.
Mitochondria and chloroplasts. Ultrastructure and function of semiautonomous organelles. Specific roles of mitochondrial and chloroplast membranes. Organelle genomes. Oxidative phosphorylation. Photosynthesis-photophosphorylation.
Endoplasmic reticulum, Golgi apparatus. Structure and function. Smooth and rough endoplasmic reticulum, sarcoplasmic reticulum.
Vesicular transport. Role in protein distribution and transport in eukaryotic cells. Vacuoles, lysosomes and peroxisomes. Structure, function, biogenesis and distribution. Metabolism. Clinical significance of lysosomes and peroxisomes.
Cytoskeleton as a dynamic structure. Cytoskeletal components. Cytoskeleton as a motive system: vesicular transport, cell motility and cell division.
Cell surfaces. Cytoplasmic membrane and cell wall. Extracellular matrix. From individual cells to tissues and multicellular organisms.
Cells in a social context. Biofilms. Cells as part of tissues. Epithelium and intercellular connections. Quorum sensing. Intercellular communication and cell death.

Recommended literature:

Alberts et al. (2014) Molecular Biology of the Cell, Garland Science.
Alberts et al. (2014) Essential Cell Biology, 5th edition, W. W. Norton & Company.
Lodish et al. (2016) Molecular Cell Biology. 8th edition, W. H. Freeman and Company.

Languages necessary to complete the course:

Slovak in combination with English (textbooks in English)

Notes:

the course is provided only in the winter semester

Past grade distribution

Total number of evaluated students: 1

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

Lecturers: prof. RNDr. Jozef Nosek, DrSc., doc. Mgr. Peter Polčic, PhD.

Last change: 07.10.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-093/22	Principles of Functional 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.

Educational level: 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: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Monika Ďurfinová, PhD., prof. MUDr. Ladislav Turecký, CSc.

Last change: 27.07.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2022/2023	
University: Comenius University Bratislava	
Faculty: Faculty of Natural Sciences	
Course ID: PriF.KBCh/N-CHBI-961/22	**Course title:** Principles of Functional and Clinical Biochemistry
Number of credits: 2	
Educational level: II.	
State exam syllabus:	
Last change: 02.02.2023	
Approved by:	

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-114/22	Principles of Molecular Immunology

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.

Educational level: 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: 45

A	B	C	D	E	FX
35,56	37,78	22,22	4,44	0,0	0,0

Lecturers: Mgr. Vladimír Leksa, PhD.

Last change: 27.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-112/22	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.

Educational level: 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: 21

A	B	C	D	E	FX
90,48	0,0	0,0	0,0	0,0	9,52

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 Strečanská

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KBCh/N-mCBI-122/22	Selected Chapters in Biochemistry and Molecular Biology

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: 3.

Educational level: 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: 27

A	B	C	D	E	FX
96,3	0,0	3,7	0,0	0,0	0,0

Lecturers: prof. RNDr. Katarína Mikušová, DrSc.

Last change: 16.10.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KGe/N-mBGE-100/22	Seminar from molecular biology of the cell (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: 1.

Educational level: 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: 62

A	B	C	D	E	FX
67,74	29,03	1,61	0,0	0,0	1,61

Lecturers: Ing. Martina Neboháčová, PhD., RNDr. Regina Sepšiová, PhD., Mgr. Katarína Gaplovská, PhD.

Last change: 02.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mUXX-204/22	Summer Physical-Education Training

Educational activities:
Type of activities: other
Number of hours:
per week: **per level/semester:** 7d
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2., 4.

Educational level: 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: 6

A	B	C	D	E	FX
66,67	0,0	0,0	0,0	0,0	33,33

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

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

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.

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: 179

A	B	C	D	E	FX
63,69	13,41	3,91	1,12	0,56	17,32

Lecturers: doc. Mgr. Peter Vďačný, PhD.

Last change: 07.11.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-084/22	UNIcert Deutsch 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: 1.

Educational level: 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: 4

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

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-085/22	UNIcert Deutsch 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: 3

Recommended semester: 2.

Educational level: 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: 1

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

Lecturers: Mgr. Karin Rózsová Wolfová

Last change: 24.07.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-082/22	UNIcert English 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: 1.

Educational level: 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

A	B	C	D	E	FX
86,59	4,88	2,44	3,66	0,0	2,44

Lecturers: PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KJ/N-mXCJ-083/22	UNIcert English 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: 3

Recommended semester: 2.

Educational level: 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: 73

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

Lecturers: PhDr. Štefánia Dugovičová, PhD., Mgr. Lenka Jeleňová, Mgr. Barbara Kordíková, PhD., PaedDr. Stanislav Kováč, PhD., RNDr. Tatiana Slováková, PhD.

Last change: 26.09.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mUXX-203/22	Winter Physical-Education Training

Educational activities:
Type of activities: other
Number of hours:
per week: **per level/semester:** 7d
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1., 3.

Educational level: 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: 45

A	B	C	D	E	FX
84,44	0,0	0,0	0,0	0,0	15,56

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

Last change: 01.08.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2022/2023

University: Comenius University Bratislava

Faculty: Faculty of Natural Sciences

Course ID:	**Course title:**
PriF.KTV/N-mXTV-111/22	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.

Educational level: 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: 71

A	B	C	D	E	FX
81,69	0,0	0,0	0,0	0,0	18,31

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 Strečanská

Last change: 01.08.2022

Approved by: