# **Course descriptions**TABLE OF CONTENTS

1. 3-MXX-101/15 Course of English for PhD Studies (1)	2
2. 3-MXX-102/15 Course of English for PhD Studies (1)	
3. 3-INF-601/15 Department Seminar	
4. 3-INF-950/15 Dissertation Examination (state exam)	
5. 3-INF-990/15 Dissertation Thesis Defense (state exam)	6
6. 3-INF-805/15 Guidance of a Final Thesis or of a Project for the Students' Conference	7
7. 3-INF-023/15 Literature Monitoring and Processing	8
8. 3-INF-804/15 Organisation of Science Events	9
9. 3-INF-602/15 PhD Students' Mobility	10
10. 3-INF-401/15 Research Activity I	11
11. 3-INF-402/15 Research Activity II	12
12. 3-INF-403/15 Research Activity III.	13
13. 3-INF-027/15 Specialisation Area	14
14. 3-INF-120/15 Study of Literature	15
15. 3-INF-003/00 Subject of Specialisation	16
16. 3-INF-803/15 Teaching Activities.	17
17. 3-INF-001/15 Theoretical Foundations of Informatics	18
18 3-INF-002/15 Theory and Methodology of Informatics	19

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

**Course ID:** 

**Course title:** 

FMFI.KJP/3-MXX-101/15

Course of English for PhD Studies (1)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28

Form of the course: on-site learning, distance learning

**Number of credits: 5** 

**Recommended semester:** 

**Educational level: III.** 

**Prerequisites:** 

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 166

A	ABS	В	С	D	Е	FX	NEABS
50,6	43,98	0,6	0,0	0,0	2,41	0,0	2,41

Lecturers: PhDr. Alena Zemanová

Last change: 20.06.2022

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

Course ID: Course title:

FMFI.KJP/3-MXX-102/15 Course of English for PhD Studies (1)

**Educational activities:** 

Type of activities: practicals

**Number of hours:** 

per week: 2 per level/semester: 28

Form of the course: on-site learning, distance learning

**Number of credits:** 5

**Recommended semester:** 

**Educational level: III.** 

**Prerequisites:** FMFI.KJP/3-MXX-101/15 - Course of English for PhD Studies (1)

**Course requirements:** 

**Learning outcomes:** 

Class syllabus:

**Recommended literature:** 

Languages necessary to complete the course:

**Notes:** 

Past grade distribution

Total number of evaluated students: 161

A	ABS	В	С	D	Е	FX	NEABS
54,66	38,51	0,0	0,0	0,0	0,0	0,0	6,83

Lecturers: PhDr. Alena Zemanová

Last change: 20.06.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID: Course title:** FMFI.KI/3-INF-601/15 Department 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: 3 **Recommended semester: Educational level: III. Prerequisites: Course requirements:** Scale of assessment (preliminary/final): 100/0 **Learning outcomes:** Students will actively participate in research activities in their departments. Class syllabus: Active participation in a research seminar in the area of the thesis, usually including a presentation on the seminar. The grade is assigned by the seminar chair. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: Slovak, English **Notes:** Past grade distribution Total number of evaluated students: 74 ABS **NEABS** 

Last change: 10.03.2022

**Lecturers:** 

Approved by:

100,0

0,0

#### STATE EXAM DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

Course ID: Course title:

FMFI.KI/3-INF-950/15 Dissertation Examination

Number of credits: 20

**Recommended semester:** 3., 4..

**Educational level: III.** 

# **Learning outcomes:**

The students demonstrate their knowledge of the area of their theses and their ability to answer questions from a wide range of topics related to their study plans. They also receive feedback on the submitted dissertation project.

# Class syllabus:

State exam syllabus:

Students submit written part of the exam containing the survey of the state-of-the-art in the field of the dissertation thesis, and a project of the thesis. The exam consists of question from the committee, and discussion.

# State exam syllabus:

# Languages necessary to complete the course:

Slovak, English

Last change: 10.03.2022

#### STATE EXAM DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

Course ID: Course title:

FMFI.KI/3-INF-990/15 Dissertation Thesis Defense

Number of credits: 30

**Recommended semester:** 7., 8..

**Educational level: III.** 

**Learning outcomes:** 

PhD thesis defense concludes the doctoral studies.

Class syllabus:

The defense consists of a presentation in which the student summarizes the results of his or her work, a discussion of the comments for the reviews and a general discussion.

State exam syllabus:

Languages necessary to complete the course:

Slovak, English

Last change: 10.03.2022

	COURSE DE	SCRII 1101V			
Academic year: 2021/2022					
University: Comenius University Bratislava					
Faculty:	Faculty:				
Course ID: FMFI.KI/3-INF-805/15	Course title: Guidance of a Final Thesis or of a Project for the Students' Conference				
Educational activities: Type of activities: Number of hours: per week: per level/semester Form of the course: on-site le					
Number of credits: 5					
Recommended semester:					
Educational level: III.					
Prerequisites:					
Course requirements: Grade is assigned by the sup mentoring of a students of lower		the continuous participation of the student in			
Learning outcomes: Students acquire practical experior Conference contributions.	rience in overseeir	g the preparation bachelors' theses, and Students'			
goals. Then on regular meeting and possibly alters the direction	s with the bachelon of the research, s, gives advice w	or, proposes a research topic, and formulates the pres' students, the student monitors their progress, evaluates partial deliverables, points out to the ith the revisions of the final text, and reports all			
Recommended literature:					
Languages necessary to comp	lete the course:				
Notes:					
Past grade distribution  Total number of evaluated students	ents: 21				
ABS	ABS NEABS				
100,0 0,0					
Lecturers:					
<b>Last change:</b> 10.03.2022					

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

Course ID: Course title:

FMFI.KI/3-INF-023/15 Literature Monitoring and Processing

**Educational activities:** 

Type of activities: independent work

**Number of hours:** 

per week: 10 per level/semester: 140 Form of the course: on-site learning

Number of credits: 10

Recommended semester: 1., 2..

**Educational level: III.** 

**Prerequisites:** 

# **Course requirements:**

### **Learning outcomes:**

The student actively monitors current development in the research area corresponding to his/her thesis, can actively comprehend and process results.

# Class syllabus:

The content usually consists of a set of scientific articles of at least 100 pages of text that represent the most important current results in the field. In their selection, the student actively cooperates with supervisor. The student usually processes these results in the form of a report with his own take at the essential parts and their importance. The form and scope of the examination are determined by the supervisor in a way that makes sure that the student documented an active understanding of the processed results. The course can be completed several times; after the end of the study part it is possible to enroll the subject as an elective.

#### **Recommended literature:**

# Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 16

ABS	NEABS
100,0	0,0

**Lecturers:** 

Last change: 10.03.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID: Course title:** FMFI.KI/3-INF-804/15 Organisation of Science Events **Educational activities: Type of activities: Number of hours:** per week: per level/semester: Form of the course: on-site learning Number of credits: 2 **Recommended semester: Educational level: III. Prerequisites: Course requirements:** Scale of assessment (preliminary/final): 100/0 **Learning outcomes:** Student gains experience in organizing research events. Class syllabus: The content of the course is work in the organizing committee of a conference, assistance in organizing a summer school, etc. The course is assessed by the advisor. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: Slovak, English **Notes:** Past grade distribution Total number of evaluated students: 1 ABS **NEABS** 100,0 0,0 **Lecturers:** 

Last change: 09.02.2022

A andomia vanu 2021/2022				
Academic year: 2021/2022				
University: Comenius University Bratislava				
Faculty:				
Course ID: FMFI.KI/3-INF-602/15	Course title: PhD Students' Mobility			
Educational activities: Type of activities: Number of hours: per week: per level/semest Form of the course: on-site le				
Number of credits: 10				
Recommended semester:				
Educational level: III.				
Prerequisites:				
Course requirements:				
1 = =	research or study stay at a chosen research institution or university.			
attending seminars, or complet	and / or study activities at the host institution. It usually involves ing courses for doctoral students. The credit value can be adjusted y that the student performed at guest institution. The course can be			
Recommended literature:				
Languages necessary to comp	lete the course:			
Notes:				
Past grade distribution Total number of evaluated stud	ents: 2			
ABS	NEABS			
100,0	0,0			
Lecturers:	•			
<b>Last change:</b> 10.03.2022				

Strana: 10

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID: Course title:** FMFI.KI/3-INF-401/15 Research Activity I **Educational activities: Type of activities: Number of hours:** per week: per level/semester: Form of the course: on-site learning Number of credits: 6 **Recommended semester: Educational level: III. Prerequisites: Course requirements:** Scale of assessment (preliminary/final): 100/0 **Learning outcomes:** Students achieve their own scientific results. Class syllabus: The student works under the guidance of a supervisor on the topic of the dissertation. The evaluation of the subject is given by the supervisor, who ensures that the student documents the work corresponding to the number of credits awarded. This usually involves publishing technical reports, preprints, publishing / submitting papers to conferences and journals, active participation in conferences, etc. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: Slovak, English **Notes:** Past grade distribution Total number of evaluated students: 11 ABS **NEABS** 100,0 0,0 **Lecturers:** 

Last change: 11.02.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID:** Course title: FMFI.KI/3-INF-402/15 Research Activity II **Educational activities: Type of activities: Number of hours:** per week: per level/semester: Form of the course: on-site learning Number of credits: 10 **Recommended semester: Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Students achieve their own scientific results. Class syllabus: The student works under the guidance of a supervisor on the topic of the dissertation. The evaluation of the subject is given by the supervisor, who ensures that the student documents the work corresponding to the number of credits awarded. This usually involves publishing technical reports, preprints, publishing / submitting papers to conferences and journals, active participation in conferences, etc. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 21 ABS **NEABS** 100.0 0,0 Lecturers:

Strana: 12

Last change: 10.03.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID:** Course title: FMFI.KI/3-INF-403/15 Research Activity III **Educational activities: Type of activities: Number of hours:** per week: per level/semester: Form of the course: on-site learning Number of credits: 20 **Recommended semester: Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Students achieve their own scientific results. Class syllabus: The student works under the guidance of a supervisor on the topic of the dissertation. The evaluation of the subject is given by the supervisor, who ensures that the student documents the work corresponding to the number of credits awarded. This usually involves publishing technical reports, preprints, publishing / submitting papers to conferences and journals, active participation in conferences, etc. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 24 ABS **NEABS** 100.0 0,0 Lecturers:

Strana: 13

Last change: 10.03.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID: Course title:** FMFI.KI/3-INF-027/15 Specialisation Area **Educational activities:** Type of activities: course **Number of hours:** per week: 4 per level/semester: 56 Form of the course: on-site learning Number of credits: 14 Recommended semester: 1. **Educational level: III. Prerequisites: Course requirements:** Final exam Scale of assessment (preliminary/final): 0/100 **Learning outcomes:** The student will gain deep knowledge in a field closely related to the topic of the dissertation. Class syllabus: The specific content of the course may vary in individual years according to the composition of students. The content usually consists of several monographs in the range of at least 500 pages of text (at the level of a scientific monograph or textbook intended for postgraduate study) and a set of scientific articles, the study of which will provide insight into the field of specialization the depth needed for active research and also allows to understand the context of the area. **Recommended literature:** Languages necessary to complete the course: Slovak, English Notes: Past grade distribution Total number of evaluated students: 17 ABS **NEABS** 100,0 0,0 Lecturers: prof. RNDr. Roman Ďurikovič, PhD., prof. Ing. Igor Farkaš, Dr.

**Last change:** 11.02.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID:** Course title: FMFI.KI/3-INF-120/15 Study of Literature **Educational activities:** Type of activities: independent work **Number of hours:** per week: 5 per level/semester: 70 Form of the course: on-site learning Number of credits: 4 **Recommended semester: Educational level: III. Prerequisites: Course requirements: Learning outcomes:** The student is familiar with the results, and actively masters the techniques from current scientific papers from the area of his/her specialization. Class syllabus: The content usually consists of a set of scientific articles in the range of 50-150 pages of text. Student individually or with the help of the supervisor searches for current results in the given area and studies them. Form and scope of examinations are determined by the supervisor so that the student documents an active understanding of the processed results. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: Notes: Past grade distribution Total number of evaluated students: 50 **ABS NEABS** 100.0 0.0 **Lecturers:** Last change: 10.03.2022

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID:** Course title: FMFI.KI/3-INF-003/00 Subject of Specialisation **Educational activities:** Type of activities: seminar **Number of hours:** per week: 4 per level/semester: 56 Form of the course: on-site learning Number of credits: 20 Recommended semester: 1., 2.. **Educational level: III. Prerequisites: Course requirements: Learning outcomes:** Class syllabus: Supervisor of each student chooses particular topic(s) based on the topis of his/her dissertation thesis. **Recommended literature:** To be recommended individually based on the particular subject area of the student Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 2 **ABS NEABS** 100,0 0,0 **Lecturers:** Last change: 02.06.2015

Strana: 16

Academic year: 2021/2022 University: Comenius University Bratislava **Faculty: Course ID:** Course title: FMFI.KI/3-INF-803/15 **Teaching Activities Educational activities:** Type of activities: other **Number of hours:** per week: 4 per level/semester: 56 Form of the course: on-site learning Number of credits: 6 **Recommended semester: Educational level: III. Prerequisites: Course requirements: Learning outcomes:** The student gains experience with teaching activities like conducting problem sessions, consultations, evaluating and grading of projects etc. Class syllabus: The content of the course is usually the conduct of problem sessions, consultations and evaluating of students' work during semester. The grade is assigned by the head of the department where the teaching takes place. The course can be completed several times. **Recommended literature:** Languages necessary to complete the course: **Notes:** Past grade distribution Total number of evaluated students: 83 ABS **NEABS** 100,0 0,0 **Lecturers:** 

Strana: 17

Last change: 10.03.2022

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty:

Course ID: Course title:

FMFI.KI/3-INF-001/15 Theoretical Foundations of 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: 8** 

**Recommended semester:** 1.

**Educational level:** III.

**Prerequisites:** 

**Antirequisites:** FMFI.KI/3-INF-001/00

**Course requirements:** 

Exam: written and/or oral

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

### **Learning outcomes:**

The student acquires deep knowledge in the foundations of computer science.

# Class syllabus:

The specific content of the course may vary in individual years according to the specific needs of the students. It usually focuses on one of the areas: computational complexity and algorithms, formal models calculations (including distributed, paper and concurrent), programming theory, modeling and simulation, logic, algebra and geometry, discrete mathematics and graph theory, probability and statistics.

#### **Recommended literature:**

### Languages necessary to complete the course:

**Notes:** 

# Past grade distribution

Total number of evaluated students: 18

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Rastislav Kráľovič, PhD.

Last change: 21.06.2022

Approved by:

Strana: 18

Academic year: 2021/2022

University: Comenius University Bratislava

**Faculty:** 

Course ID: Course title:

FMFI.KI/3-INF-002/15 Theory and Methodology of Informatics

**Educational activities:** 

Type of activities: course

**Number of hours:** 

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

Number of credits: 10

**Recommended semester: 2.** 

**Educational level: III.** 

**Prerequisites:** 

**Antirequisites:** FMFI.KI/3-INF-002/00

**Course requirements:** 

The grade is based on the final exam. Grades: A 90%, B 80%, C 70%, D 60%, E 50%.

#### **Learning outcomes:**

The student will acquire deeper knowledge in some area of computer science. The content usually covers an area that is not directly the topic of the dissertation, but is related to it in context, motivation or methods.

#### Class syllabus:

The specific content of the course may vary in individual years according to the composition of students. The scope of the course usually covers about 300-500 pages of text intended for postgraduate study.

### **Recommended literature:**

# Languages necessary to complete the course:

Slovak, English

**Notes:** 

# Past grade distribution

Total number of evaluated students: 17

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Bronislava Brejová, PhD., doc. RNDr. Edita Mačajová, PhD.

**Last change:** 21.06.2022

Approved by:

Strana: 19