Course descriptions

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COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-808/15	Creation of Methodology Particulars

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
In-term evaluation: reports (30 %), methodological outputs (40 %), teacher materials (30 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
The student knows different theories related to the content and criteria for the development of teacher materials for primary and secondary school teachers. The student is able to design and critically evaluate methodological materials for teaching Informatics, considering the specific level of education. He/she is able to specify the general and specific educational objectives pursued by the material. By analysing the specific learning objectives of a lesson or existing methodological materials, he/she is able to design or even program microworlds, thus using digital technologies to support the achievement of the stated learning objectives.

Class syllabus:
An overview of different theories for the debelopment and content of methodological materials for teachers of Informatics in primary and secondary school. Basic breakdown of educational materials, adaptation of new methodological materials to meet general educational objectives. Identification and formulation of specific educational objectives according to Bloom's taxonomy. Constructivist and constructionist approaches to education and the differences that these approaches bring for the preparation of methodological materials. Methodological materials for e-learning and online teaching/learning. Further teacher education using digital technologies. Copyright compliance in methodological materials. How to include pupils' reactions during the lesson in the prepared methodological materials, predicting and dealing with different situations that might occur during the lesson. Teacher portals related to education and their evaluation. Demonstration, analysis and critical evaluation of existing methodological materials. Teacher's personality and his/her ability to adopt materials created by another teacher/professional in the field of Informatics teaching. Teachers' direct experience with the materials developed.

Recommended literature:

teacher's own electronic texts

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 5

A	ABS	B	C	D	E	FX	NEABS
60,0	40,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. PaedDr. Monika Tomcsányiová, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

STATE EXAM DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KDMFI/3-IVI-950/15	**Course title:** Dissertation Examination
Number of credits: 20	
Educational level: III.	
Recommended prerequisites: in accordance with the Study Regulations of Comenius University and the Study Regulations of the faculty	
Course requirements: It is regulated by the Higher Education Act, the Study Regulations of Comenius University and the Study Regulations of the faculty. The sufficiency and suitability of the dissertation project is assessed by the dissertation examination committee, which evaluates the depth and breadth of the doctoral student's knowledge. The dissertation examination consists of a written and an oral part. The written thesis for the dissertation examination must include a thesis, or dissertation project, with a clearly formulated research project design. The dissertation examination must demonstrate that the doctoral candidate can orient himself/herself at a scientific level in the subject under study, can formulate problems and establish valid procedures for their solution. The final evaluation will be determined by the Board of Examiners. Scale of assessment (preliminary/final): 0 / 100	
Learning outcomes: Completion of the course will result in passing the state examination – the dissertation examination of the third-degree programme Informatics Education. After passing the dissertation examination, the doctoral student is able to orientate himself/herself at a scientific level in the studied problem, is able to formulate problems and establish valid procedures for their solution. By writing a written thesis for the dissertation examination, the student presents his/her dissertation project, with a clearly articulated research project design.	
Class syllabus: In the first part of the examination, the student will present the thesis of his/her dissertation project, and possibly other parts of his/her written work. In the second part, the student will answer the examiners' questions from the following thematic areas according to the content focus of his/her dissertation, considering the individually studied literature: Informatics. Informatics at primary and secondary school Didactics of Informatics Methods of Pedagogical Educational Research	
State exam syllabus:	
Recommended literature: Kirkman, J.: Good Style. Writing for science and technology. Routledge Study Guides, Routledge, London, 2005 Phillips, E.M., Pugh, D.S.: How to get a PhD. A handbook for students and their supervisors. Open University Press, 2000	

other appropriate study materials provided by the supervisor of the student and the guarantor of the programme
Languages necessary to complete the course: Slovak, English
Last change: 23.06.2022
Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-507/15	Dissertation Project and Its Implementation (1)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
In-term assessment: active participation in meetings, study of materials and follow-up discussions (60 %), presentations, iterations of the text of a dissertation project, debates (40 %)
Examination: oral
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
The student develops his/her culture of scientific work – in terms of organizing their work and time, searching for literature and working with it, in terms of communicating with foreign departments and research teams, in terms of writing publications and presenting his/her results. The student learns to keep good records of their work. They keep their own e-portfolio from which they can easily generate their current professional profile. The student understands the need to distinguish between different types of "scientific audiences", scientific events, scientific and professional publications and communities. The student learns to assess and comment on the scholarly manuscripts and publications of others. The student is able to assess the quality of a grant application, and is able to critically analyse such an application. The student can plan and implement his/her own small grant application.

Class syllabus:
Different types of scientific events and communities, professional organizations. Organisation of scientific work, working with literature, working with their own notes. Creating and using their own e-portfolio with records of the outputs, creating professional profiles. Principles of correct communication, e.g., with a foreign department or a research team. Principles of publishing their own results, principles of their presentation. How to assess and comment on other authors' professional manuscripts. Grant application, research project structure, research project planning, Gantt chart. Designing a small grant application.

Recommended literature:
Creswell, J.W.: Educational Research. Planning, conducting, and evaluating quantitative and qualitative research. Pearson, 2012

Languages necessary to complete the course:
Slovak, for the study of some sources also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 13

A	ABS	B	C	D	E	FX	NEABS
46,15	46,15	0,0	0,0	0,0	0,0	0,0	7,69

Lecturers: prof. RNDr. Ivan Kalaš, PhD., doc. RNDr. Zuzana Kubincová, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-508/15	Dissertation Project and Its Implementation (2)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: III.

Prerequisites: FMFI.KDMFI/3-IVI-507/15 - Dissertation Project and Its Implementation (1)

Course requirements:
In-term assessment: active participation in meetings, study of materials and follow-up discussions (60 %), presentations, iterations of the text of the dissertation project, expert debates (40 %)
Examination: oral
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
This course is an immediate continuation and part of the course Design and Implementation of a Dissertation Project (1). The student further develops the culture of his/her scientific work. He/she learns to analyse a scientific text, to comment on it, to judge whether it is original, innovative, of good quality and comprehensible, and to follow the ethical principles of the research work. He/she learns how to competently analyse someone else's dissertation project, knowing its parts and tasks, he/she learns to develop such a project on their own. He/she produces their own dissertation project (position paper), they learn the principles of scientific style, can assess it on a concrete text. The student learns the principles of good research and is able to respect and follow these principles in his/her own work.

Class syllabus:
Dissertation project, its role, structure, planning. Characteristics of a good dissertation project. Ethical principles of research work. Specification of the research problem, how to design, structure, document, present and implement it. Scope and quality of the dissertation project, how to assess and evaluate the project of another doctoral student or researcher. Principles of good scientific style, vocabulary and slang terms, common and professional language. How to conduct your research, principles of good research. Structure of doctoral studies, cooperation with the supervisor, structure of the written part of the dissertation examination and the dissertation.

Recommended literature:
Creswell, J.W.: Educational Research. Planning, conducting, and evaluating quantitative and qualitative research. Pearson, 2012

Kirkman, J.: Good Style. Writing for science and technology. Routledge Study Guides, Routledge, London, 2005
Phillips, E.M., Pugh, D.S.: How to get a PhD. A handbook for students and their supervisors. Open University Press, 2000

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
42,86	57,14	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD., doc. RNDr. Zuzana Kubincová, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

STATE EXAM DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KDMFI/3-IVI-990/15	**Course title:** Dissertation Thesis
Number of credits: 30	
Educational level: III.	
Recommended prerequisites: is regulated by the Study Regulations of Comenius University and the Study Regulations of the faculty	
Course requirements: The dissertation defence does not have an interim evaluation. The conditions for graduation are governed by the Higher Education Act, the Study Regulations of Comenius University, the Study Regulations of FMFI UK and other relevant documents. The correctness, accuracy, scholarship, timeliness and contribution of the dissertation shall be assessed by a trio of referees proposed by the Departmental Council and the Board of the Study Programme and appointed by the Dean of the Faculty, and by a committee appointed for this purpose. Examination: defence of the dissertation and qualified debate before the committee and the referees. Scale of assessment (preliminary/final): 0 / 100	
Learning outcomes: Successful completion of the defence results in the completion of doctoral studies and the award of the PhD degree.	
Class syllabus: Defence of the dissertation in the form of an oral presentation before the committee. A scientific debate between the doctoral student, opponents, committee members and other participants of the defence on the results and the contribution of the dissertation. During the dissertation defence, the validity and plausibility of the conclusions and proposals contained in the dissertation are also examined.	
State exam syllabus:	
Recommended literature: Katuščák, D.: Ako písať vysokoškolské a kvalifikačné práce : Ako písať seminárne práce, ročníkové práce, práce študentskej vedeckej a odbornej činnosti, diplomové práce, záverečné a atestačné práce, dizertácie. Bratislava : Stimul, 1998 Kirkman, J.: Good Style. Writing for science and technology. Routledge Study Guides, Routledge, London, 2005 Phillips, E.M., Pugh, D.S.: How to get a PhD. A handbook for students and their supervisors. Open University Press, 2000 other up-to-date documents that specify the form and requirements of the dissertation	
Languages necessary to complete the course: Slovak, English	
Last change: 23.06.2022	

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-301/22	Individual Research and Publishing Work (1)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 6

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 20

A	ABS	B	C	D	E	FX	NEABS
60,0	35,0	0,0	5,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-302/22	Individual Research and Publishing Work (2)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 6

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 19

A	ABS	B	C	D	E	FX	NEABS
63,16	31,58	5,26	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-303/22	Individual Research and Publishing Work (3)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 6

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 18

A	ABS	B	C	D	E	FX	NEABS
77,78	22,22	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-304/22	Individual Research and Publishing Work (4)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 17

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 23

A	ABS	B	C	D	E	FX	NEABS
82,61	17,39	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-312/22	Individual Research and Publishing Work (5)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 17

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 13

A	ABS	B	C	D	E	FX	NEABS
53,85	46,15	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-313/22	Individual Research and Publishing Work (6)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 17

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:
The course is continuously evaluated by the doctoral supervisor in close cooperation with the guarantor of the study programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. The following activities are required and evaluated: publication in a research journal, active participation in a scientific event, publication in a peer-reviewed conference proceedings, active participation in the research activities of a scientific project, lecture at a professional seminar, active participation in the ŠVK, supervision and assistance in the supervision of thesis and ŠVK theses and other adequate activities. Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student will develop the knowledge and skills of independent and teamwork in solving specific scientific research problems related to the dissertation research project, including the publication of the findings in journals, scientific conferences, seminars, participation in teams of grant research tasks, active participation in the ŠVK, leadership of bachelor theses and ŠVK theses, etc. The student's publication outputs must meet the publication requirements approved by the Informatics Section for the doctoral Informatics Education study programme.

Class syllabus:
The course is a key part of the doctoral studies and forms the basis of the first, second, third, but especially the fifth, sixth and seventh semesters of study (i.e. the part of study after the dissertation examination). It is the core of the independent scientific part of the PhD student's study programme, representing student’s own research of an interesting dissertable scientific problem and requires its original and innovative research approach.

Recommended literature:
Internationally approved scientific literature in the field of dissertation research, according to the recommendation and consultation with the supervisor and on the basis of student’s own study, or the responsible supervisor of the research project, or a lead of a project, or the guarantor of the study programme.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
71,43	28,57	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-IVI-004/15	Mathematical Statistics for Educational Research (1)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during semester: based on the solutions of assignments and active participation (50 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student knows and can apply various statistical methods to analyze nominal and ordinal data and can design and implement data collection in educational research using a variety of methods.

Class syllabus:
Probability distributions of random variables. Position and variability characteristics. Basics of statistical reasoning. Random selection, parameter estimation and confidence intervals. Sampling methods, simple random selection without return, with return, stratified and multistage random selection and their application in educational research tasks.

Recommended literature:
F. Lamoš, R. Potocký: Matematická štatistika, Bratislava : Univerzita Komenského, 1983
M. Chráska: Metody pedagogického výzkumu. Základy kvantitatívneho výzkumu. GRADA, Praha, 2007
Cochran, W.G. Sampling techniques, Wiley and Sons, New York,1977

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 6

A	ABS	B	C	D	E	FX	NEABS
16,67	66,67	0,0	0,0	0,0	0,0	0,0	16,67

Lecturers: doc. RNDr. Katarína Janková, CSc., Mgr. Ján Somorčík, PhD.

Last change: 23.06.2022
Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-IVI-021/15	Mathematical Statistics for Educational Research (2)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during semester: project (50 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student can apply more advanced statistical methods to the analysis of metric data and can assess the correctness of such a procedure.

Class syllabus:
Contingency tables: graphical representation, test of independence, test homogeneity, odds ratio, McNemar's test, Simpson's paradox and Cochran-Mantel-Haenszel test, Bowker test, Fisher exact test.
Study and application of selected statistical methods to dissertation related data.

Recommended literature:
J. Andel: Statisticke metody, Matfyzpress 2019 (5. vydanie),
M. Chráska: Metody pedagogického výzkumu. Základy kvantitatívneho výzkumu. GRADA, Praha, 2007

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1

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

Lecturers: doc. RNDr. Katarína Janková, CSc., Mgr. Ján Somorčík, PhD.

Last change: 23.06.2022
Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAI/3-IVI-011/15	Modern Methods of Educational Research (1)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during semester: continuous active work (50%), presentation of outputs (20%), active participation (30%)
Examination: -
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
Student at the end of the semester:
• distinguishes different educational research strategies
• has knowledge of the characteristics of different qualitative and quantitative designs such as grounded theory, action research, design-based research and others,
• can plan a research project and assess the appropriateness of applying these designs,
• is familiar with the ethical principles of the modern researcher in the field of computer science education theory and has a moral awareness of their application to specific research,
• can identify, classify, study, analyse and use appropriate sources of information for pedagogical research in the field of computer science education,
• can competently present the results of their research work.

Class syllabus:
• Research and exploration in educational-empirical research
• Basic qualitative research designs (Grounded theory. Ethnographic design, Narrative research designs.)
• Basic research designs of quantitative nature (Experimental design, Corellational design, Survey design)
• Mixed research strategies.
• Action research and its application to educational research in school settings.
• Design-based research (research by development), its planning, implementation, iterative steps.
• Ethical principles of the modern researcher (BERA).

Recommended literature:

Creswell, J.W.: Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research
Creswell, J.W., Plano Clark, V.L.: Designing and Conducting Mixed Methods Research. Third Edition
Plomp, T., Nieveen, N. (Eds.): Educational Design Research: Part A: An introduction.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 9

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

Lecturers: doc. Mgr. Karolína Miková, PhD.

Last change: 21.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAI/3-IVI-019/15	Modern Methods of Educational Research (2)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 3.

Educational level: III.

Prerequisites:

Recommended prerequisites:
Modern Methods of Educational Research (1)

Course requirements:
Evaluation during semester: presentation (20%), project (30%), active participation (20%)
Examination: writing a research report (30%)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 70 / 30

Learning outcomes:
Student at the end of the semester:
• knows and can distinguish between different educational research strategies in the context of research in computer science education theory,
• correctly identifies the research problem and research questions or hypotheses,
• has experience in using international online resources to search for literature in their research area,
• is familiar with methods for collecting, analysing and interpreting qualitative and quantitative data and can use them appropriately,
• knows and applies various methods to ensure the quality and objectivity of pedagogical research.
• can design a research project and is familiar with the challenges of conducting educational research.

Class syllabus:
• Identification of the research problem and research questions or hypotheses
• How to find, study, analyse and critically evaluate the literature for a given research area
• Creating the tool for collecting the necessary data
• Collecting quantitative and qualitative data, analysing and interpreting them
• Validity and reliability of quantitative research in practice
• Writing a research report

Recommended literature:
Švaříček, R., Šeďová, K. a kol.: Kvalitativní výzkum v pedagogických vědách

Creswell, J.W.: Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research
Creswell, J.W., Plano Clark, V.L.: Designing and Conducting Mixed Methods Research. Third Edition

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
85,71	14,29	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. Mgr. Karolína Miková, PhD.

Last change: 21.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAI/3-IVI-032/19	Pedagogic Communication

Educational activities:
Type of activities: course
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Active participation in the meetings, creative and open approach (50 %), taking written notes (50 %).
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
Through hands-on exploratoty learning, students will learn communication tools and principles that will enable them to better understand communication and the inner experience of self and others. They will learn to find resources for effective teaching, learning, and motivating themselves and others.

Class syllabus:
Basic theory of communication.
Principles of successful communication, goal setting.
Techniques of good contact, feedback, conflict resolution.
Sensory access to information, ways of presenting learning materials.
Presentation of material, lesson management. Non-directive communication and learner centred teaching.
Asymmetrical communication, rank/status and privilege, communication by action and force, responsible use of power.
Teacher personality and role, identity, wider life context. Finding resources at different levels.
Group dynamics in the classroom, dealing with disruption and resistance.

Recommended literature:
Haláková, Z.: Pedagogická komunikácia pre študentov učiteľstva. Bratislava: UK, 2012.
Rogers, C., Freiberg, J.: Sloboda učiť sa. Modra: Persona, 1998.
Kupka, I.: Praktické aplikácie neurolingvistického programovania, Bratislava: UK, 2000.
Watzlawick, P., Bavelasová, J., Jackson, D.: Pragmatika lidské komunikace. Hradec Králové: Konfrontace, 1999.

Languages necessary to complete the course:
Slovak, for the study of some sources also English as a secondary language.

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
28,57	71,43	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Martin Takáč, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-017/15	Selected Chapters in Theory of Informatics Education (1)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation during semester: based on the solutions to assignments (25 %); presentations and discussions (25 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student will expand his/her knowledge of selected current topics in the Theory of Informatics Education. The student will be familiar with current theories of cognition in the context of Informatics education and digital technologies and be able to design learning situations in Informatics education that develop constructivist and constructionist principles. Can analyse and compare different approaches to teaching Informatics in different countries. He/she can design educational content, from general educational objectives to its implementation in the classroom, including in terms of the choice of appropriate didactic forms, working with motivation, using individual or group work, diagnosing and evaluating real achievements, etc. Is able to analyse the process and identify its problematic aspects.
The student is able to identify interesting professional publications – usually journal or conference publications, as well as educational contents and methodological materials, to analyse, comment, present and synthesise their parts that are directly related to the chosen topic of the Theory of Informatics Education. He/she is able to classify these publications and methodological materials according to their quality, form and focus. Can assess how a given publication contributes to a given topic.

Class syllabus:
Current advanced knowledge of the Theory of Informatics Education that is closely related to the supporting topics of the core knowledge of the field of study. Contemporary theories of cognition and Informatics, theories of constructivism and constructivism and their implementation in Informatics education, the research area of TEL (Technology Enhanced Learning). Informatics as a subject in different foreign education systems, e.g., the subject of Computing in the UK. Current issues in the field of didactics of Informatics education in primary and secondary education.

The potential and forms of modern digital technologies in the context of Informatics education in primary and secondary schools.
The student is involved in a research project currently underway by a professor in the area of Theory of Informatics Education), or is involved in the preparation of its application, and participates in its study support. Under the guidance of the teacher, the student learns to identify, process, annotate, present and synthesize from these sources the parts that will contribute to the research project. In doing so, he or she adds to his or her knowledge of current areas of the Theory of Informatics Education.

Recommended literature:
conference proceedings of ISSEP, IFIP, SIG CSE ACM, WiPSCE, IDC, etc.
major journals in the field of theory of Informatics education
seminal works (as mandatory reading) of the "founding fathers" of the field including Papert, diSessa, Resnick, Noss, Hoyles, Clayson, Ferzeig and others
own electronic texts of the subject teacher

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 9

A	ABS	B	C	D	E	FX	NEABS
33,33	55,56	0,0	11,11	0,0	0,0	0,0	0,0

Lecturers: doc. RNDr. Ľudmila Jašková, PhD., doc. RNDr. Zuzana Kubincová, PhD., doc. Mgr. Karolína Miková, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-018/15	Selected Chapters in Theory of Informatics Education (2)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: III.

Prerequisites:

Recommended prerequisites:
Completion of the course Selected Chapters of the Theory of Informatics Education (1) is not a prerequisite.

Course requirements:
Continuous evaluation during semester: based on the solutions to assignments (25 %); presentations and discussions (25 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student will further expand his/her knowledge of selected current topics in the Theory of Informatics Education. The student will be familiar with current theories of cognition in the context of Informatics education and digital technologies and be able to design learning situations in Informatics education that develop constructivist and constructionist principles. Can analyse and compare different approaches to teaching Informatics in different countries. He/she can design educational content, from general educational objectives to its implementation in the classroom, including in terms of the choice of appropriate didactic forms, working with motivation, using individual or group work, diagnosing and evaluating real achievements, etc. Is able to analyse the process and identify its problematic aspects.
The student is able to identify interesting professional publications – usually journal or conference publications, as well as educational contents and methodological materials, to analyse, comment, present and synthesise their parts that are directly related to the chosen topic of the Theory of Informatics Education. He/she is able to classify these publications and methodological materials according to their quality, form and focus. Can assess how a given publication contributes to a given topic.

Class syllabus:
Current advanced knowledge of the Theory of Informatics Education that is closely related to the supporting topics of the core knowledge of the field of study. Contemporary theories of

cognition and Informatics, theories of constructivism and constructivism and their implementation in Informatics education, the research area of TEL (Technology Enhanced Learning). Informatics as a subject in different foreign education systems, e.g., the subject of Computing in the UK. Current issues in the field of didactics of Informatics education in primary and secondary education. The potential and forms of modern digital technologies in the context of Informatics education in primary and secondary schools.
The student is involved in a research project currently underway by a professor in the area of Theory of Informatics Education), or is involved in the preparation of its application, and participates in its study support. Under the guidance of the teacher, the student learns to identify, process, annotate, present and synthesize from these sources the parts that will contribute to the research project. In doing so, he or she adds to his or her knowledge of current areas of the Theory of Informatics Education.

Recommended literature:
conference proceedings of ISSEP, IFIP, SIG CSE ACM, WiPSCE, IDC, etc.
major journals in the field of theory of Informatics education
seminal works (as mandatory reading) of the "founding fathers" of the field including Papert, diSessa, Resnick, Noss, Hoyles, Clayson, Ferzeig and others
own electronic texts of the subject teacher

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 6

A	ABS	B	C	D	E	FX	NEABS
16,67	83,33	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD., doc. PaedDr. Monika Tomcsányiová, PhD., doc. RNDr. Ľudmila Jašková, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-020/15	Selected Chapters in Theory of Informatics Education (3)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 3.

Educational level: III.

Prerequisites:

Recommended prerequisites:
Completion of the courses Selected Chapters of the Theory of Informatics Education (1), Selected Chapters of the Theory of Informatics Education (2) is not a prerequisite.

Course requirements:
Continuous evaluation during semester: based on the solutions to assignments (25 %); presentations and discussions (25 %)
Examination: oral (50 %)
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student will further expand his/her knowledge of selected current topics in the Theory of Informatics Education. The student will be familiar with current theories of cognition in the context of Informatics education and digital technologies and be able to design learning situations in Informatics education that develop constructivist and constructionist principles. Can analyse and compare different approaches to teaching Informatics in different countries. He/she can design educational content, from general educational objectives to its implementation in the classroom, including in terms of the choice of appropriate didactic forms, working with motivation, using individual or group work, diagnosing and evaluating real achievements, etc. Is able to analyse the process and identify its problematic aspects.
The student is able to identify interesting professional publications – usually journal or conference publications, as well as educational contents and methodological materials, to analyse, comment, present and synthesise their parts that are directly related to the chosen topic of the Theory of Informatics Education. He/she is able to classify these publications and methodological materials according to their quality, form and focus. Can assess how a given publication contributes to a given topic.

Class syllabus:
Current advanced knowledge of the Theory of Informatics Education that is closely related to the supporting topics of the core knowledge of the field of study. Contemporary theories of

cognition and Informatics, theories of constructivism and constructivism and their implementation in Informatics education, the research area of TEL (Technology Enhanced Learning). Informatics as a subject in different foreign education systems, e.g., the subject of Computing in the UK. Current issues in the field of didactics of Informatics education in primary and secondary education. The potential and forms of modern digital technologies in the context of Informatics education in primary and secondary schools.
The student is involved in a research project currently underway by a professor in the area of Theory of Informatics Education), or is involved in the preparation of its application, and participates in its study support. Under the guidance of the teacher, the student learns to identify, process, annotate, present and synthesize from these sources the parts that will contribute to the research project. In doing so, he or she adds to his or her knowledge of current areas of the Theory of Informatics Education.

Recommended literature:
conference proceedings of ISSEP, IFIP, SIG CSE ACM, WiPSCE, IDC, etc.
major journals in the field of theory of Informatics education
seminal works (as mandatory reading) of the "founding fathers" of the field including Papert, diSessa, Resnick, Noss, Hoyles, Clayson, Ferzeig and others
own electronic texts of the subject teacher

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 4

A	ABS	B	C	D	E	FX	NEABS
25,0	75,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD., doc. RNDr. Ľudmila Jašková, PhD., doc. RNDr. Zuzana Kubincová, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-002/00	Selected Topics in Informatics (1)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during semester: based on the solutions to assignments (15%); presentations (15%), discussions (20%)
Examination: oral
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student develops a synthesizing view of selected major concepts of Informatics and its applications and reflects on which of these concepts and practices to project into school Informatics, how and at what stage and level. He/she can analyze a given methodological material that conveys some of these concepts to lower or upper secondary school pupils, he/she can design such material himself/herself. Can create a version of such material for gifted pupils in primary and secondary school, or design/select/implement didactic forms for its use suitable for lower achievers.
The student will also learn about other modern trends in the development and application of software environments for teaching/learning Informatics.

Class syllabus:
The choice of the content respects the focus of the student's dissertation project and is specified in detail after discussion with the supervisor and the program guarantor.
Some of the following and other topical areas:
Important concepts of computer science and its applications and how to project them into school Informatics
Randomness and its use in Informatics, cryptology
DNA Computing and biocomputing technologies
Virtual reality
Artificial Intelligence
Quantum computing and quantum computing
Networks. Internet of things
Recent trends in modern Informatics

Recommended literature:
Proceedings of selected conferences such as ISSEP, IFIP, SIG CSE ACM, etc.
professional (content oriented) materials from the IT Academy portal
Hromkovič, J.: Seven wonders of informatics, Ružomberok : Verbum, 2012
Lecturer's own materials

Languages necessary to complete the course:
Slovak, English as a secondary language to study some materials

Notes:

Past grade distribution
Total number of evaluated students: 5

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

Lecturers: doc. RNDr. Zuzana Kubincová, PhD., prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-007/00	Selected Topics in Informatics (2)

Educational activities:
Type of activities: course
Number of hours:
per week: 3 **per level/semester:** 39
Form of the course: on-site learning

Number of credits: 7

Recommended semester: 3.

Educational level: III.

Prerequisites:

Recommended prerequisites:
Completion of the course Selected Chapters of Informatics (1) is not a prerequisite.

Course requirements:
Completion of the course Selected Chapters of Informatics (1) is not a prerequisite.
Evaluation during semester: based on the solutions to assignments (15%); presentations (15%), discussions (20%)
Examination: oral
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The student further extends a synthesizing view of selected major concepts of Informatics and its applications and reflects on which of these concepts and practices to project into school Informatics, how and at what stage and level. He/she can analyze a given methodological material that conveys some of these concepts to lower or upper secondary school pupils, he/she can design such material himself/herself. Can create a version of such material for gifted pupils in primary and secondary school, or design/select/implement didactic forms for its use suitable for lower achievers.
The student will also learn about other modern trends in the development and application of software environments for teaching/learning Informatics.

Class syllabus:
Completion of the course Selected Chapters in Informatics (1) is not a prerequisite. The choice of the content respects the focus of the student's dissertation project and is specified in detail after discussion with the supervisor and the program guarantor.
Some of the following and other topical areas:
Important concepts of computer science and its applications and how to project them into school Informatics
Randomness and its use in Informatics, cryptology
DNA Computing and biocomputing technologies
Virtual reality

Artificial Intelligence
Quantum computing and quantum computing
Networks. Internet of things
Recent trends in modern Informatics

Recommended literature:
Proceedings of selected conferences such as ISSEP, IFIP, SIG CSE ACM, etc.
professional (content oriented) materials from the IT Academy portal
Hromkovič, J.: Seven wonders of informatics, Ružomberok : Verbum, 2012
Lecturer's own materials

Languages necessary to complete the course:
Slovak, English as a secondary language to study some materials

Notes:

Past grade distribution
Total number of evaluated students: 1

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

Lecturers: doc. RNDr. Zuzana Kubincová, PhD., prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-305/10	Specialised Department Seminar (1)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 18

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

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-306/10	Specialised Department Seminar (2)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 20

A	ABS	B	C	D	E	FX	NEABS
65,0	35,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-307/10	Specialised Department Seminar (3)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 18

A	ABS	B	C	D	E	FX	NEABS
77,78	22,22	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-308/10	Specialised Department Seminar (4)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 20

A	ABS	B	C	D	E	FX	NEABS
80,0	20,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-309/10	Specialised Department Seminar (5)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 22

A	ABS	B	C	D	E	FX	NEABS
81,82	18,18	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-310/15	Specialised Department Seminar (6)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 11

A	ABS	B	C	D	E	FX	NEABS
63,64	36,36	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-311/15	Specialised Department Seminar (7)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 2 **per level/semester:** 26
Form of the course: on-site learning

Number of credits: 3

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:
Continuous evaluation is assessed by the seminar leader in cooperation with the supervisor and the study programme supervisor on the basis of the student's active participation in the seminar, including his/her own performance (100%). Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student actively and systematically participates in the continuous learning process of the department, gaining experience of teamwork in research projects and solving current problems of the theory of Informatics education. He/she learns to actively engage in research and to reflect on or discuss ongoing professional issues and problems. He/she engages in discussions with invited guests, prepares for and participates in the seminar, learns to present their research problems, research objectives and methods, presents partial results of their research and interpret them. He/she prepares for independent creative work and pedagogical research on the learning processes in informatics, methods and requirements of school informatics at all levels of education, including university and lifelong learning.

Class syllabus:
It results from the research tasks of the department or a project team, which are currently being solved, according to the topics presented by invited guests, with regard to the systematic development of scientific knowledge and thinking of the doctoral student necessary for the realization of his/her dissertation project.

Recommended literature:
Modern literature that is the subject of study of the department or the relevant project team in which the PhD student is involved. The study literature for the orientation of the departmental seminar is determined by the seminar leader in cooperation with the supervisor of the student and the guarantor of the study programme, or recommended by the guest lecturers who present their results and topics at the seminar.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
85,71	14,29	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Ivan Kalaš, PhD.

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-101/10	Study of Resources (1)

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: 1.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and for producing the written part of the dissertation examination.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 21

A	ABS	B	C	D	E	FX	NEABS
61,9	38,1	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 23.06.2022

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-102/10	Study of Resources (2)

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: 2.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and for producing the written part of the dissertation examination.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 19

A	ABS	B	C	D	E	FX	NEABS
68,42	31,58	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-103/10	Study of Resources (3)

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: 3.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and for producing the written part of the dissertation examination.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 18

A	ABS	B	C	D	E	FX	NEABS
77,78	22,22	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-104/10	Study of Resources (4)

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: 4.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and for producing the written part of the dissertation examination.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 17

A	ABS	B	C	D	E	FX	NEABS
76,47	23,53	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-105/10	Study of Resources (5)

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

Number of credits: 5

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and writing their dissertation.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 23

A	ABS	B	C	D	E	FX	NEABS
82,61	17,39	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-106/15	Study of Resources (6)

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

Number of credits: 5

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and writing their dissertation.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 10

A	ABS	B	C	D	E	FX	NEABS
60,0	40,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-107/15	Study of Resources (7)

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

Number of credits: 5

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:
Evaluation during the semester: The course is continuously evaluated by the supervisor of the student in cooperation with the guarantor of the programme and in accordance with the rules of doctoral studies of the Comenius University and the faculty. Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will further develop his/her knowledge of the latest advances in Informatics education theory. They will gain erudition in working with scientific and professional texts by studying its content and forms. They will learn to systematise and present the knowledge acquired (e.g., at a departmental or project seminar, at a conference, etc.), to interpret and reflect on it. They will improve the academic writing skills of their scientific papers and reports on their dissertation research, thus preparing for the quality publication of their own results and writing their dissertation.

Class syllabus:
The course belongs to the study part of the doctoral student's individual study programme. It is fulfilled by independent study of the recommended literature and regular discussions with the supervisor. The selection of scientific and professional texts to be read is determined by the supervisor, considering the latest trends in the development of the Informatics education theory. The selection follows from the focus of the dissertation project and helps to develop the knowledge and methodological apparatus of the discipline. The selected study literature is also intended to develop the supporting themes of the core knowledge of the field of Informatics education theory.

Recommended literature:
Based on the choice of the supervisor and the study programme guarantor, topical and up-to-date scientific and professional literature from major scientific journals of the field, conference proceedings and monographs – with regard to the topic of the dissertation research. It also includes, as a matter of principle, the classical pillars of the field, e.g., the works of S. Papert, F. Feurzeig, R. Noss, M. Resnick, C. Solomon, B. Harvey, etc.

Languages necessary to complete the course:

Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 7

A	ABS	B	C	D	E	FX	NEABS
85,71	14,29	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 24.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-801/15	Supervising and Demonstrating Work (1)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 20

A	ABS	B	C	D	E	FX	NEABS
65,0	35,0	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-802/15	Supervising and Demonstrating Work (2)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 19

A	ABS	B	C	D	E	FX	NEABS
68,42	31,58	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-803/15	Supervising and Demonstrating Work (3)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 18

A	ABS	B	C	D	E	FX	NEABS
77,78	22,22	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-804/15	Supervising and Demonstrating Work (4)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 18

A	ABS	B	C	D	E	FX	NEABS
77,78	22,22	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-805/15	Supervising and Demonstrating Work (5)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 22

A	ABS	B	C	D	E	FX	NEABS
77,27	22,73	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-806/15	Supervising and Demonstrating Work (6)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 24

A	ABS	B	C	D	E	FX	NEABS
79,17	20,83	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KDMFI/3-IVI-807/15	Supervising and Demonstrating Work (7)

Educational activities:
Type of activities: other
Number of hours:
per week: 4 **per level/semester:** 52
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:
The course is evaluated by the guarantor of the study programme in which the doctoral student carries out direct teaching activity. In doing so, he/she shall consider the reactions of the students in whose teaching the doctoral student has actively participated.
Indicative grading scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 100 / 0

Learning outcomes:
The student develops his/her pedagogical skills and professional knowledge through active cooperation in conducting seminars, evaluating students' outputs and verifying their knowledge, supervising bachelor's theses and consulting diploma theses.

Class syllabus:
The course is focused on auxiliary pedagogical activities related to the preparation and conducting of seminars, evaluation of students' outputs and verification of their knowledge, supervising bachelor theses, etc., with a view to mastering the basic principles of pedagogical approach to students, mastering modern methods of teaching, evaluation and productive communication of the content of the studied issue, or presentation of their own results to students. The content of the course contains preparation of pedagogical and professional documents for the teaching of students of the first and second cycle of higher education, the preparation of didactic aids and study materials, in appropriate cases also using modern digital technologies. It is implemented by active participation of the 3rd cycle student in the pedagogical process of teaching students of related bachelor and master study programmes, in particular by their assistance in conducting seminars and evaluating outputs, supervising bachelor theses and consulting master theses.
The choice of direct teaching content should, where possible, consider the research area of the student's dissertation project.

Recommended literature:
The literature consists of relevant professional and pedagogical materials, study materials of the guarantors of the corresponding courses, etc.

Languages necessary to complete the course:

Slovak, for preparing for the process also English as a secondary language

Notes:

Past grade distribution
Total number of evaluated students: 6

A	ABS	B	C	D	E	FX	NEABS
83,33	16,67	0,0	0,0	0,0	0,0	0,0	0,0

Lecturers:

Last change: 26.11.2021

Approved by: prof. RNDr. Ivan Kalaš, PhD.