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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.KI+KAG/3-MDM-031/10	Advanced Linear Algebra

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Pavol Zlatoš, PhD., prof. RNDr. Martin Škoviera, PhD.

Last change: 15.01.2018

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-010/25	Algebraic Geometry

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Homeworks (written solutions of problems and their consulting 50%), final exam (oral exam with written preparation 50%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): Homeworks / Final evaluation: 50/50

Learning outcomes:
PhD. student masters basic notions and methods of modern algebraic geometry in order to read contemporary literature in the area.

Class syllabus:
Affine schemes and their basic constructions. Techniques of global schemes.

Recommended literature:
1. S. Bosch: Algebraic Geometry and Commutative Algebra, Springer, 2013
2. D. Eisenbud: Commutative algebra with a view toward algebraic geometry. New York: Springer,2004
3. D. Eisenbud, J. Harris: The Geometry of Schemes, Springer, 2000
4. U. Görtz, T. Wedhorn: Algebraic Geometry I: Schemes, Springer, 2020

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KI/3-MDM-029/10	Algebraic Theory of Graphs

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

Number of credits: 10

Recommended semester: 1., 2..

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 14

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Róbert Jajcay, DrSc.

Last change: 02.06.2015

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-012/00	Algebraic Topology (1)

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral
Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
This is a follow-up to the master course in algebraic topology, an elaboration of homology and cohomology theories at advanced levels.

Class syllabus:
Homology and cohomology theories, the universal coefficient theorems and Kuenneth fomulae, products, Steenrod cohomology operations, duality.

Recommended literature:
Topology and geometry / Glen E. Bredon. New York : Springer, 1993
Algebraic topology / Edwin H. Spanier. New York : Springer, 1966
Algebraic topology / Allen Hatcher. New York : Cambridge University Press, 2001

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Tibor Macko, PhD.

Last change: 21.06.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-013/25	Algebraic Topology (2)

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral
Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
Elaboration of higher homotopy theory and basic facts from theory of spectral sequences.

Class syllabus:
Higher homotopy groups, the Hurewicz homomorphism, homotopy properties of CW-complexes, homology and cohomology spectral sequences of fibrations and their applications.

Recommended literature:
Topology and geometry / Glen E. Bredon. New York : Springer, 1993
Algebraic topology / Edwin H. Spanier. New York : Springer, 1966
Algebraic topology / Allen Hatcher. New York : Cambridge University Press, 2001

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Tibor Macko, PhD.

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KI/3-MDM-028/10	Algorithmics for Hard Problems

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:
Exam: Oral
Scale of assessment (preliminary/final): 0/100

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 2

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Rastislav Kráľovič, PhD.

Last change: 21.06.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-MAM-014/00	Asymptotic Methods

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Interim assessment during the semester has a weight of 30% (homeworks 20%, bonus exercises 10%). The two semester exam papers have a total weight of 70% (the first paper taken in the middle of the semester, the second paper taken at the end of the semester). The student must obtain at least half of the points from each semester exam paper. The final evaluation can be adjusted by an oral exam (theoretical questions, written preparation).
Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), FX (50-0)
Scale of assessment (preliminary/final): 30/70

Learning outcomes:
To give an overview of basic asymptotic methods for solving algebraic and differential problems in applied mathematics.

Class syllabus:
Algebraic equations: Iterative method. Algebraic equations: Expansion method. Singular perturbations and rescaling. Logarithmic Poincare's expansions. Convergence and asymptoticity. Asymptotic approximation of integrals. Watson's lemma. The steepest descent method. Regular perturbation problems in differential equations. Singular perturbation problems in differential equations. Method of matched asymptotic expansions. Multiple scale method. WKBJ method. Poincare-Lindstedt method. Radius of convergence and Domb-Sykes plots.

Recommended literature:
E. J. Hinch: Perturbation Methods, Cambridge University Press, 1991
J. Kevorkian, J. D. Cole: Multiple Scale and Singular Perturbation Methods, Springer, 1996

Languages necessary to complete the course:
English

Notes:

Past grade distribution Total number of evaluated students: 9	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Peter Guba, PhD.	
Last change: 22.06.2022	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-MAM-005/00	Biomathematics

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Recommended prerequisites:
2-MAT-111 Dynamical Systems OR 2-MAT-112 Partial Differential Equations (1) OR 2-MAT-121 Partial Differential Equations (2)

Course requirements:
Continuous assessment: individual work
Exam: final exam and project
Assessment grade scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
Students will become familiar with the theory and techniques used in current research in mathematical biology and in mathematical models in the natural and social sciences in general. At the same time, students try to work on a separate project in this area. They will also gain new knowledge from population models, chemical kinetics and cell biology.

Class syllabus:
Principles of mathematical modeling, modeling goals, model building, model simulations, parameter selection, non-dimensionalization, model robustness, results analysis. Biochemical kinetics, enzymatic reactions, cooperativity, quasi-stationary approximation. Epidemiological models. Dynamics on neural and other cell membranes, Hodgkin-Huxley model, Fitzhugh-Nagumo model.

Recommended literature:
A primer on mathematical models in biology / Lee A. Segel, Leah Edelstein-Keshet. Philadelphia, Pa. : Society for Industrial and Applied Mathematics, 2013
Mathematical biology : 1. : An introduction / J. D. Murray. New York : Springer, 2002
Mathematical biology : 2. : Spatial models and biomedical applications / J. D. Murray. New York : Springer, 2003
Nonlinear dynamics and chaos : with applications to physics, biology, chemistry, and engineering / Steven H. Strogatz. Cambridge : Perseus Books, 1994

Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 7	
ABS	NEABS
100,0	0,0
Lecturers: doc. Mgr. Richard Kollár, PhD.	
Last change: 13.03.2022	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-222/25	Category B Publication

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

Number of credits: 25

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
A publication in a journal covered by Mathematical Reviews, Zentralblatt MATH, Referativnyi Zhurnal, INSPEC; in fully peer reviewed proceedings of an international conference held in an international language, with a large international participation, reviewed by title in Mathematical Reviews, Zentralblatt MATH, Referativnyi Zhurnal; in proceedings of an internationally renowned organization (IFAC) or publisher (Springer, Elsevier) if it is not of category A; a monograph or a chapter in monograph in an international language published by an international publisher if it is not of category A. The number of credits will be 0.P times 25 if the student's participation on the publication is P%.

Class syllabus:
Achieving new scientific results in the area of student's PhD study. Writing a scientific manuscript and its publication.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-223/25	Category C Publication

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

Number of credits: 20

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
A publication reviewed, but not by title, in Mathematical Reviews, ZbMATH, Referativnyi Zhurnal; in peer reviewed proceedings of an international conference with an international organizing committee, if it is not of categories A or B; a monograph or a chapter in monograph published by a Slovak publishing house in an international language, exceptionally also in Slovak, reviewed in Mathematical Reviews, ZbMATH, Referativnyi Zhurnal, if it contains new original results by the student. The number of credits will be 0.P times 20 if the student's participation on the publication is P%.

Class syllabus:
Achieving new scientific results in the area of student's PhD study. Writing a scientific manuscript and its publication.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 2

ABS	NEABS
100,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-224/25	Category D Publication

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
A scientific publication by the student that cannot be classified as of type A, B, or C. The number of credits will be 0.P times 10 if the student's participation on the publication is P%.

Class syllabus:
Achieving new scientific results in the area of student's PhD study. Writing a scientific manuscript and its publication.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-031/25	Category Theory

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral
Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
To master selected category-theoretical methods used in topology and algebra.

Class syllabus:
Abstract and concrete categories and functors, adjoint functors, existence of adjoints, reflective and coreflective subcategories, factorization structures, topological categories and functors, selected topical themes.

Recommended literature:
Categories for the working mathematician / Saunders Mac Lane. New York : Springer, 1997
Algebra a príbuzné disciplíny / Milan Kolibiar ...[et al.]. Bratislava : Alfa, 1992
Abstract and Concrete Categories/Jiří Adámek, Horst Herrlich, George E. Strecker. http://katmat.math.uni-bremen.de/acc/acc.pdf

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. Mgr. Tibor Macko, PhD.

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MDM-027/10	Classic Algebraic Structures

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers: doc. RNDr. Martin Mačaj, PhD.

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-023/25	Classical Differential Geometry

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Final exam (oral exam with written preparation 100%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
The PhD students master important notions, methods and results of the classical differential geometry of curves and surfaces. They will be able to apply their knowledge to problems in geometry and topology.

Class syllabus:
Curves: Analytic expression. Tangent lines and osculating planes. Natural parametrization. Curvature and torsion, the Frenet formulas. Natural equations of curves.
Surfaces: Analytic expression. Curves on surfaces. Tangent planes and normals. Developable surfaces. The first fundamental form of a surface. Mappings between surfaces. The second fundamental form of a surface. The normal curvature of a surface. Directions on a surface. Principal directions and principal curvatures. The Gaussian curvature of a surface.
Geometry on surfaces: Geodesics, geodetic coordinates. Surfaces with constant curvature. Non-euclidean geometry.

Recommended literature:
A comprehensive introduction to differential geometry : volume 1 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 2 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 3 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 4 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 5 / Michael Spivak. Berkeley : Publish or Perish, 1979

Lectures on classical differential geometry / Dirk J. Struik. Cambridge : Addison-Wesley Press, 1950

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-008/22	Commutative Algebra

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Homeworks (written solutions of problems and their consulting 50%), final exam (oral exam with written preparation 50%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): Homeworks/ final exam: 50/50

Learning outcomes:
PhD. student masters selected methods of modern commutative algebra with emphasis on application in other areas, especially in algebraic geometry.

Class syllabus:
Commutatiove rings and modules. Theory of noetherian rings. Integral extensions of rings. Extensions and restrictions of coefficients. Homological methods: Ext and Tor.

Recommended literature:
1. S. Bosch: Algebraic Geometry and Commutative Algebra, Springer, 2013
2. M. F. Atiyah, I. G. MacDonald: Introduction to commutative algebra: Advanced book program.Oxford : Westview, 1969
3. D. Eisenbud: Commutative algebra with a view toward algebraic geometry. New York: Springer,2004
4. H.Matsumura: Commutative Ring Theory, Cambridge University Press, Cambridge, 1989

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD., doc. RNDr. Martin Mačaj, PhD.

Last change: 22.06.2022
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-113/25	Completion of Defined Stage of PhD Research Project (1)

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

Number of credits: 10

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
The student completes the corresponding part of the research related to the dissertation and achieves original results.

Class syllabus:
Scientific research and elaboration of the results in a written form.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 8

ABS	NEABS
100,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-114/25	Completion of Defined Stage of PhD Research Project (2)

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

Number of credits: 10

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
The student completes the corresponding part of the research related to the dissertation and achieves original results.

Class syllabus:
Scientific research and elaboration of the results in a written form.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 9

ABS	NEABS
88,89	11,11

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-115/25	Completion of Defined Stage of PhD Research Project (3)

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

Number of credits: 10

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
The student completes the corresponding part of the research related to the dissertation and achieves original results.

Class syllabus:
Scientific research and elaboration of the results in written form.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 7

ABS	NEABS
100,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MGT-002/25	**Course title:** Constructive Applied Geometry
Educational activities: **Type of activities:** lecture **Number of hours:** **per week:** 2 **per level/semester:** 26 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 4.	
Educational level: III.	
Prerequisites:	
Course requirements: Final exam (oral exam with written preparation 100%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%	
Learning outcomes: The aim of this lecture, based on principles and methods of the traditional geometry and the computational synthetic geometry, is to deepen the knowledge of the students useful in technical applications of geometry and machine vision. The lecture will also supply the necessary geometric basis for the theory of computer vision and image recognition. The students will also find inspiration for creating new algorithms or improving effectiveness of the traditional algorithms in computer graphics.	
Class syllabus: Synthetic constructions of curves, surfaces and solids for technical applications. Viewing methods and traditional methods of the realistic imaging (illumination, shadowing, isophotes). The use of computers and professional software in constructions and photo-realistic imaging. Geometric photogrammetry and its use in creating virtual cities. Single view geometry and camera models. Mathematical and geometric principles of multiple view geometries. Two-view and epipolar geometry. Projections used in cartography or related fields.	
Recommended literature: R. Hartley, A Zisserman: Multiple View Geometry, Cambridge University Press 2002 O. Faugeras, Q – T. Luong (T. Papadopoulo) Geometry of Multiple Images, The MIT Press, Cambridge, Massachusetts, London 2001	
Languages necessary to complete the course:	
Notes:	

Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.	
Last change: 26.05.2025	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-024/10	Contemporary Geometric Modeling

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Final exam (oral exam with written preparation 100%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
The students are supposed to acquire modern trends in parameteric, implicit and subdivision modeling of curves, surfaces and volumes. They should be able to solve tasks connected with constructive modelling requirements of technical praxis as well as contemporary problems of modeling in computer graphics, entertainment industry and mass media.

Class syllabus:
Mathematical methods in geometric modeling. Extended methods in paramteric modeling (Coons body construction, bodies as special hypersurfaces in E4). Geometric modeling using splines, especially in rational form. Recursive subdivision and refinement in modeling. Fundamentals of implicit modeling of curves and surfaces. F-rep. Implicitization. Selected elimination methods. Polar forms. Shape modification tools and fitting. Mesh in geometric modeling. Effective methods of tesselation for smooth surfaces and boundaries.

Recommended literature:
Solid modeling by computers : From theory to applications / edited Mary S. Pickett, John W. Boyse. New York : Plenum Press, 1984
Level set methods and dynamic implicit surfaces / Stanley Osher, Ronald Fedkiw. New York : Springer, 2003
Michael Mortenson : Geometric Modeling. John Wiley & Sons, Inc. New York, NY, 3rd Edition 2006

Languages necessary to complete the course:

Notes:

Past grade distribution Total number of evaluated students: 1	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.	
Last change: 22.06.2022	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

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

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

Number of credits: 5

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 239

A	ABS	B	C	D	E	FX	NEABS
35,15	61,09	0,42	0,0	0,0	1,67	0,0	1,67

Lecturers: Mgr. Simona Dobiašová, PhD., Mgr. Aneta Barnes

Last change: 13.01.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

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

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

Number of credits: 5

Recommended semester:

Educational level: III.

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

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 210

A	ABS	B	C	D	E	FX	NEABS
41,9	52,38	0,0	0,0	0,0	0,0	0,0	5,71

Lecturers: Mgr. Simona Dobiašová, PhD., Mgr. Aneta Barnes

Last change: 13.01.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-813/25	Creation of Teaching Texts and Aids

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

Number of credits: 6

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
The student produces a new teaching aid or text.

Class syllabus:
Preparations for producing a new teaching aid or text. Production of a new teaching aid or text.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
66,67	33,33

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-215/22	**Course title:** Development of Novel Software Product Linked with PhD Project
Educational activities: **Type of activities:** **Number of hours:** **per week:** **per level/semester:** **Form of the course:** on-site learning	
Number of credits: 5	
Recommended semester: 8.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	

ABS	NEABS
0,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-014/25	Differential Topology

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral
Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
An elaboration of the advanced theory of smooth manifolds and vector bundles.

Class syllabus:
The Morse-Sard theorem, transversality, vector bundles, immersions and embeddings of manifolds in Euclidean spaces, the degree of a map, the Euler characteristic, basic facts from Morse theory.

Recommended literature:
Topology and geometry / Glen E. Bredon. New York : Springer, 1993
Differential topology / Morris W. Hirsch. New York : Springer, 1997

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Tibor Macko, PhD.

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

STATE EXAM DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-990/22	**Course title:** Dissertation Thesis Defense
Number of credits: 30	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MMA-022/15	Dynamical Systems and Bifurcation Theory

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Recommended prerequisites:
(1-MAT-801 Topology or 1-MAT-150 Mathematical Analysis (2)) and 1-MAT-310 Ordinary Differential Equations (1)

Course requirements:
Exam: oral and written exam
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
Absolvent will gain a good foundation in the theory of dynamical systems and the theory of bifurcations, which he will be able to apply in solving specific problems in the field of natural and technical sciences.

Class syllabus:
Generic characterization of singular points and periodic trajectories of dynamical systems. Invariant manifolds. Reduction to the central manifold. Calculation of normal forms. Single and multiparametric bifurcations close to singular points and periodic trajectories. Homoclinic trajectories and Melnikov functions. Introduction to chaos theory.

Recommended literature:
M. Medveď: Dynamické systémy, Veda, 1988.
M. Medveď: Fundamentals of dynamical systems and bifurcation theory, Philadelphia, Adam Hilger, 1992.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Michal Fečkan, DrSc., RNDr. Michal Pospíšil, PhD.
Last change: 15.03.2022
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MNA-005/15	Finite Element Methods

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:
Continuous assessment: individual work
Exam: oral
Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
Acquire methods and practices for the implementation of modern computational procedures.

Class syllabus:
Galerkin method, interpolation theory in H-spaces 1D and 2D. Finite element method error estimation. Bases in specific spaces. The first Strang's lemma, nonconformal elements, the second Strang's lemma, the Maltigrid method, algebraic solution, solution of evolutionary problems by the finite element method.

Recommended literature:
Metóda konečných prvkov / Marián Slodička. Bratislava : Fakulta matematiky, fyziky a informatiky UK, 2001

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Ján Filo, CSc., Dr. Hana Šmitala Mizerová

Last change: 16.03.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MMA-021/15	Functional Differential Equations

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
Students learn the basics of the theory of differential equations with delayed arguments and functional differential equations.

Class syllabus:
1. Initial value problem and the method of steps.
2. Existence and uniqueness of solutions of systems with bounded delays.
3. Linear delay differential systems. Variation of parameters.
4. Lyapunov method for uniform stability. Asymptotic stability.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Jaroslav Jaroš, CSc.

Last change: 15.03.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-021/25	Fundamentals of Geometry

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Examination (A: 90%, B: 80%, C: 70%, D: 60% , E:50%)

Learning outcomes:
The PhD students learn some interesting but little known properties of geometric planar and spatial objects, as well as the fundamental principles and methods in the axiomatic approach to classical geometry related to some geometric and algebraic structures and formation of non-euclidean geometries. They will be then able to use the knowledge obtained to solve problems in geometry and topology.

Class syllabus:
Geometric incidence structures, projective and affine planes. Coordinatization of projective and affine planes and the relations between geometric and corresponding coordinate algebraic structures. Finite geometries and geometries over the field. Ordered geometry. Absolute geometry as the starting point for introduction of hyperbolic non-euclidean geometry. Riemann's non-euclidean geometry. Fundamental principles for construction of four-dimensional geometry. Selected chapters of Euclidean geometry (special properties of triangle, isometries and similarities in Euclidean plane and space, two-dimensional crystallography, geometry of circles and spheres, Platonic solids, golden section, phyllotaxis).

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: RNDr. Jana Chalmovianská, PhD., doc. Mgr. Tibor Macko, PhD.

Last change: 26.05.2025
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-030/10	General Topology

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral
Indicative evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
To master selected notions and methods of general topology and their applications in geometry and topology, mathematical analysis and algebra.

Class syllabus:
Compact spaces and compactifications, compactly generated spaces, perfect mappings, paracompact spaces, topologies on sets of continuous mappings, compact - open topology, metrizable spaces, metrization theorems, uniform spaces, selected topical themes.

Recommended literature:
General topology / Stephen Willard. Mineola : Dover, 1970
Topology / James R. Munkres. Upper Saddle River : Prentice-Hall , 2000
Modern general topology / Jun-Iti Nagata. Amsterdam : North-Holland, 1968

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers: doc. Mgr. Tibor Macko, PhD., doc. RNDr. Jaroslav Guričan, CSc.

Last change: 21.06.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-016/25	Global Differential Geometry

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
Final exam (oral exam with written preparation 100%). Rough evaluation scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
The students will master basic ideas and results of the global differential geometry of manifolds.

Class syllabus:
Differentiable manifolds, smooth mappings, tangent vectors. Tensors and tensor fields. Covariant derivative, affine connection. Geodesics. Riemannian metric, the Levi-Civita connection. Homogeneous spaces, invariant connections.

Recommended literature:
Foundations of differential geometry : Volume 2 / Shoshichi Kobayashi, Katsumi Nomizu. New York : John Wiley, 1969
A comprehensive introduction to differential geometry : volume 1 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 2 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 3 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 4 / Michael Spivak. Berkeley : Publish or Perish, 1979
A comprehensive introduction to differential geometry : Volume 5 / Michael Spivak. Berkeley : Publish or Perish, 1979
Kobayashi, S., Nomizu, K.: Foundations of Differential Geometry I. Interscience Publishers N. York, 1996.

Languages necessary to complete the course:

Notes:

Past grade distribution Total number of evaluated students: 3	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.	
Last change: 26.05.2025	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KI/3-MDM-030/10	**Course title:** Graph Theory Methods in Computer Science
Educational activities: **Type of activities:** lecture **Number of hours:** **per week:** 2 **per level/semester:** 26 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester:	
Educational level: III.	
Prerequisites:	
Course requirements: Exam: Oral Scale of assessment (preliminary/final): 0/100	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers: prof. RNDr. Rastislav Kráľovič, PhD.	
Last change: 21.06.2022	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-809/22	Guidance of a Final Thesis or of a Project for the Students´ Conference

Educational activities:
Type of activities: other
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-101/22	Individual Study of Science and Research Resources (1)

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-102/22	**Course title:** Individual Study of Science and Research Resources (2)
Educational activities: **Type of activities:** independent work **Number of hours:** **per week:** 10 **per level/semester:** 130 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 2.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	

Past grade distribution
Total number of evaluated students: 2

ABS	NEABS
100,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-103/22	**Course title:** Individual Study of Science and Research Resources (3)
Educational activities: **Type of activities:** independent work **Number of hours:** **per week:** 10 **per level/semester:** 130 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 3.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 3	

ABS	NEABS
100,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-104/22	Individual Study of Science and Research Resources (4)

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-105/22	**Course title:** Individual Study of Science and Research Resources (5)
Educational activities: **Type of activities:** independent work **Number of hours:** **per week:** 10 **per level/semester:** 130 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 5.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 5	

ABS	NEABS
100,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-106/22	**Course title:** Individual Study of Science and Research Resources (6)
Educational activities: **Type of activities:** independent work **Number of hours:** **per week:** 10 **per level/semester:** 130 **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 6.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	
Past grade distribution Total number of evaluated students: 4	

ABS	NEABS
100,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-107/22	Individual Study of Science and Research Resources (7)

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester: 7.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 7

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-214/22	Introduction of Novel Experimental Method Linked with PhD Project

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

Number of credits: 5

Recommended semester: 8.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-018/25	Introduction to Symplectic Topology

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and/or oral exam
Indicative grading scheme: A: 90%, B: 80%, C: 70%, D: 60% , E:50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
Students will master classical results, as well as selected outcomes of the current research in symplectic topology, topological applications of gauge theories etc.

Class syllabus:
The contents of the course will be adjusted, to some extent, to the interests of the students. The topics covered in the course will include mainly the following:
basic notions, methods and results of symplectic topology, tools and analytical background of theory of J-holomorphic curves, the Gromov-Witten invariants, applications of the gauge theory in the topology of 3-dimensional and 4-dimensional manifolds.

Recommended literature:
Symplectic geometry, grupoids, and integrable systems / Pierre Dazord, Alan Weinstein. New York : Springer, 1991
Algebraic topology / Edwin H. Spanier. New York : Springer, 1966
Introduction to Symplectic Topology / Dusa McDuff, Dietmar Salamon: Oxford Science Publications, 1998

Languages necessary to complete the course:
English, Slovak

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: Mgr. Martin Niepel, PhD., doc. Mgr. Tibor Macko, PhD.
Last change: 26.05.2025
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-015/25	Lie Groups and Algebras

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and/or oral examin
Indicative grading scheme: A: 90%, B: 80%, C: 70%, D: 60% , E:50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
Students will learn the basic concepts, methods and results of the theory of Lie groups and algebras and will be able to apply them in solving problems in geometry and topology.

Class syllabus:
The notion of Lie group, examples. The action of a Lie group on a manifold. Homogeneous spaces. Classical Lie groups. Invariant vector fields. Basic information on representations. Fundamentals of the theory of Lie algebras.

Recommended literature:
Topology and geometry / Glen E. Bredon. New York : Springer, 1993
Diferenciálna geometria a Lieove grupy pre fyzikov / Marián Fecko. Bratislava : Iris, 2004
Differential geometry and Lie groups for physicists / Marián Fecko. Cambridge : Cambridge University Press, 2006
Carter, Roger, Segal, Graeme, and MacDonald, Ian, Lectures on Lie Groups and Lie Algebras, Cambridge University Press, 1995.

Languages necessary to complete the course:
English, Slovak

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers: Mgr. Martin Niepel, PhD., doc. Mgr. Tibor Macko, PhD.

Last change: 26.05.2025
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-026/25	Machine Vision and Image Processing

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
individual work
Examination 100% (A: 90%, B: 80%, C: 70%, D: 60% , E:50%)

Learning outcomes:
The PhD students receive an overview of recent advanced methods in computer vision, which reflect the current state of knowledge in the field (preprocessing, segmentation, image recognition and understanding), with an emphasis on the most challenging ideas in 3D vision. They will be able to apply the acquired knowledge in solving theoretical and practical problems of computer vision.

Class syllabus:
1. Digital image and its properties (overview)
2. The image preprocessing (advanced method)
3. Segmentation (advanced method)
4. Pattern recognition (advanced method)
5. Image understanding
6. 3D vision, geometry and radiometry
7. Uses of 3D vision
8. Motion Analysis
9. Case studies (selected topics)

Recommended literature:
Image processing, analysis, and machine vision / Milan Sonka, Vaclav Hlavac, Roger Boyle. [Stamford] : Cengage Learning, 2008
Počítačové videnie / Elena Šikudová, Zuzana Černeková, Wanda Benešová, Zuzana Haladová, Júlia Kučerová. Praha: Wikina 2013.
https://vgg.fiit.stuba.sk/kniha/Pocitacove%20Videnie%20-%20Detekcia%20a%20Rozpoznavanie%20Objektov.pdf
Study materials in Slovak and selected recent papers and monographs in Visual Computing research.

Languages necessary to complete the course:

Notes:	
Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
50,0	50,0
Lecturers: doc. RNDr. Andrej Ferko, PhD.	
Last change: 26.05.2025	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-MAM-009/15	Models of Fluids Dynamics

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Interim assessment during the semester has a weight of 30% (homeworks 20%, bonus exercises 10%). The two semester exam papers have a total weight of 70% (the first paper taken in the middle of the semester, the second paper taken at the end of the semester). The student must obtain at least half of the points from each semester exam paper. The final evaluation can be adjusted by an oral exam (theoretical questions, written preparation).
Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), FX (50-0)
Scale of assessment (preliminary/final): 30/70

Learning outcomes:
Teach the students to derive and analyse basic equations describing fluid flow.

Class syllabus:
Equations of motion for ideal fluids. Vorticity. Irrotational flow. Vorticity equation.
Equations of motion for viscous fluids. Examples of simple viscous flows. Flows with circular streamlines.
Convection and diffusion of vorticity. Gravity waves. Dispersion and group velocity. Surface tension effects and capillary waves.
Internal gravity waves. Waves with finite amplitude. Hydraulic shocks and solitary waves. Kelvin--Helmholtz instability. Thermal convection. Centrifugal instability. Theorem on the stability of shear flow. General theorem on the stability of viscous flow. Uniqueness of steady viscous flow. Transition to turbulence.

Recommended literature:
D. J. Acheson: Elementary Fluid Dynamics, Oxford, Clarendon Press, 1990
G. K. Batchelor: An Introduction to Fluid Dynamics, Cambridge University Press, 2000
P. Guba: Dynamika tekutín, skriptá, FMFI UK, 2021

Languages necessary to complete the course:
English

Notes:

Past grade distribution Total number of evaluated students: 2	
ABS	NEABS
100,0	0,0
Lecturers: doc. RNDr. Peter Guba, PhD.	
Last change: 22.06.2022	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MMA-023/15	Nonlinear Functional Analysis

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Exam: oral
Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
To show possible applications of nonlinear functional analysis, especially in examining the properties of solutions of differential equations.

Class syllabus:
Fundamentals of the theory of the degree of mappings, introduction to the theory of monotone operators, nonlinear boundary value problems.

Recommended literature:
Methods of nonlinear analysis : Applications to differential equations / Pavel Drábek, Jaroslav Milota. Basel : Birkhäuser, 2007
Nonlinear functional analysis and its applications : II/B: Nonlinear Monotone Operators / Eberhard Zeidler ; Translated by Author and by Leo F. Boron. New York : Springer, 1990
An introduction to nonlinear boundary value problems / Stephen R. Bernfeld, V. Lakshmikantham. New York : Academic Press, 1974

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Michal Fečkan, DrSc.

Last change: 12.03.2022
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MNA-004/00	Numerical Methods for Conservation Law

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Continuous assessment: individual work
Exam: oral
Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50%

Learning outcomes:
To get acquainted with the basic methods of solving hyperbolic conservation systems.

Class syllabus:
Hyperbolic systems; linear problems and their numerical methods; consistence, convergence and Lax‘s theorem, Lax Vendroffova method, nonlinear hyperbolic problems, weak and entropy solutions, conservative and entropy methods, Riemann problem and its solution, Godunov method, Roas method, nonlinear hyperbolic systems and the methods of their solutions.

Recommended literature:
Le Veque: Numerical methods for conservative law, ETH Zurich, Birkhauser-Verlag, Basel, 1992

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Ján Filo, CSc., Dr. Hana Šmitala Mizerová

Last change: 21.06.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MNA-002/00	Numerical Methods for Solving ODEs

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:
IVP: one step methods, multistep methods, stability, convergence, nonstiff and stiff problems, explicit RK-methods of higher order, implicit RK-methods, delay differential equations.
BVP:.conditioning of BVPs, initial value methods, finite difference methods, finite element methods, mesh selection, singular perturbations, functional differential equations, solving of nonlinear multipoint BVPs.

Recommended literature:
Hairer, E., Norsett, S. P., Wanner, G.: Solving Ordinary Differential Equations I Nonstiff Problems.Springer Verlag 1987
Hairer, E.,Wanner, G.: Solving Ordinary Differential Equations II Stiff and Differential – Algebraic Problems. Springer Verlag 1991
Ascher, U. M., Mattheij, R. M. M., Russell, R. D.: Numerical Solution of Boundary Value Problems for Ordinary Differential Equations. SIAM 1995
Dávid, A., Chocholatý, P.: Numerická matematika II (Okrajové úlohy pre obyčajné diferenciálne rovnice) UK Bratislava 1985

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: Dr. Hana Šmitala Mizerová

Last change: 02.06.2015
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-211/22	Obtaing the Comenius University Grant for the Young

Educational activities:
Type of activities: independent work
Number of hours:
per week: 20 **per level/semester:** 260
Form of the course: on-site learning

Number of credits: 20

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-212/22	Organisation of Science Events

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MMA-028/15	Partial Differential Equations

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. RNDr. Eugen Viszus, CSc.

Last change: 10.03.2020

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

STATE EXAM DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-950/22	**Course title:** Passing Dissertation Examination
Number of credits: 20	
Educational level: III.	
State exam syllabus:	
Last change:	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-213/22	PhD Students´ Mobility

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-209/22	Presentation at a Home Conference

Educational activities:
Type of activities: independent work
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 2

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-210/22	Presentation at an International Conference

Educational activities:
Type of activities: independent work
Number of hours:
per week: 20 **per level/semester:** 260
Form of the course: on-site learning

Number of credits: 20

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 7

ABS	NEABS
85,71	14,29

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KI/3-MDM-024/22	Probabilistic Methods in Combinatorics

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. RNDr. Robert Lukoťka, PhD.

Last change: 28.01.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-202/22	Publication in a Reviewed Periodical or Reviewed Almanac

Educational activities:
Type of activities: independent work
Number of hours:
per week: 15 **per level/semester:** 195
Form of the course: on-site learning

Number of credits: 15

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 2

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-201/22	Publication in an A-category Periodical

Educational activities:
Type of activities: independent work
Number of hours:
per week: 30 **per level/semester:** 390
Form of the course: on-site learning

Number of credits: 30

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-032/15	Real Algebraic Geometry

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
Examination (A: 90%, B: 80%, C: 70%, D: 60% , E:50%)

Learning outcomes:
The student should master basic qualitative results and computational methods of work with real (semi)algebraic varieties. The student learns typical examples in spaces of dimensions 1, 2, 3, 4 and becomes able to use them in applications based on real semialgebraic objects, e.g. in geometric modeling, visualization etc.

Class syllabus:
Real closed fields. Semialgebraic sets, their properties and decomposition. Real and complex algebraic sets. Properties, examples, constructions. Real roots of polynomial systems and their localization – methods and algorithms.

Recommended literature:
Bochnak, J.; Coste, M.; Roy, M.-F., Real algebraic geometry. Berlin: Springer. ix, 430 p., (1998)
Basu, S.; Pollack, R.; Roy, M.-F., Algorithms in real algebraic geometry. 2nd ed. Berlin: Springer, 662 p., 2006

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: doc. RNDr. Pavel Chalmovianský, PhD.

Last change: 03.09.2015

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-207/22	Response to a Publication

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-208/22	Scientific Project Co-researcher

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG+KI/3-MDM-034/10	Selected Topics in Group Theory

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Pavol Zlatoš, PhD., prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Róbert Jajcay, DrSc.

Last change: 02.06.2015

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-017/25	Selected Topics in Low-Dimensional Topology

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Exam: written and oral exam
Indicative grading scheme: A: 90%, B: 80%, C: 70%, D: 60% , E:50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
The students will master classical results, as well as selected outcomes of the modern low-dimensional topological research.

Class syllabus:
The contents of the course will be adjusted, to some extent, to the interests of the students. The topics covered in the course will include mainly the following:
Basic notions, methods and results of knot and link theory; results from the topology of 3-dimensional manifolds: examples of manifolds, lens spaces, surgery, torus decompositions;
results on 4-dimensional manifolds: examples of manifolds, algebro-topological invariants, complex surfaces, the Kirby calculus.

Recommended literature:
Knots / Gerhard Burde, Heiner Zieschang, Michael Heusener. New York : Walter de Gruyter, 2013
Algebraic topology / Allen Hatcher. New York : Cambridge University Press, 2001
Algebraic topology / Edwin H. Spanier. New York : Springer, 1966
Knots, Links, Braids and 3-manifolds: An Introduction to the New Invariants in Low-Dimensional Topology / V. V. Prasolov, A. B. Sossinsky: AMS, Providence, 1996

Languages necessary to complete the course:
English, Slovak

Notes:

Past grade distribution Total number of evaluated students: 0	
ABS	NEABS
0,0	0,0
Lecturers: Mgr. Martin Niepel, PhD., doc. Mgr. Tibor Macko, PhD.	
Last change: 26.05.2025	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KI/3-MDM-035/15	Selected Topics in Modern Graph Theory

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

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., doc. RNDr. Edita Mačajová, PhD.

Last change: 02.06.2015

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAMŠ/3-MMA-012/22	Semigroups and Evolution Equations

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:
Preliminary grading: The student will complete three homework assignments of 15 points.
Exam: oral
Indicative scale of assessment: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 45/55

Learning outcomes:
The students will learn the basics of the theory of C0-semigroups
and its use in the analysis of evolution partial differential equations,
primarily equations of parabolic type.

Class syllabus:
The Gauss-Weierstras semigroup, C0-semigroups and their generators, the Hille-Yosida theorem. Analytic semigroups and their generators. Generation of semigroups by elliptic operators. Powers of operators. Fractional, interpolation and extrapolation spaces, and properties of semigroups in those spaces. Existence and properties of the solution of a model nonlinear parabolic equation.

Recommended literature:
A. Pazy: Semigroups of Linear Operators and Applications to Partial Differential Equations; Springer 1983

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
0,0	100,0

Lecturers: prof. RNDr. Pavol Quittner, DrSc.

Last change: 19.06.2022
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-203/22	Seminar in Science (1)

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Pavol Quittner, DrSc.

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-204/22	Seminar in Science (2)

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Pavol Quittner, DrSc.

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-205/22	**Course title:** Seminar in Science (3)
Educational activities: **Type of activities:** **Number of hours:** **per week:** **per level/semester:** **Form of the course:** on-site learning	
Number of credits: 10	
Recommended semester: 6.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	

Past grade distribution
Total number of evaluated students: 6

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Pavol Quittner, DrSc.
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-206/22	Seminar in Science (4)

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

Number of credits: 10

Recommended semester: 8.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD., prof. RNDr. Pavol Quittner, DrSc.

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-023/22	Subject of Specialisation

Educational activities:
Type of activities: independent work
Number of hours:
per week: 10 **per level/semester:** 130
Form of the course: on-site learning

Number of credits: 10

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-802/22	Teaching Practice in the Summer Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-804/22	Teaching Practice in the Summer Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-806/22	Teaching Practice in the Summer Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 6.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-808/22	Teaching Practice in the Summer Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 8.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-801/22	Teaching Practice in the Winter Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 3

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-803/22	Teaching Practice in the Winter Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 4

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-805/22	Teaching Practice in the Winter Semester

Educational activities:
Type of activities: other
Number of hours:
per week: 5 **per level/semester:** 65
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 5.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers:

Last change:

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KAG/3-MAT-807/22	**Course title:** Teaching Practice in the Winter Semester
Educational activities: **Type of activities:** other **Number of hours:** **per week:** 5 **per level/semester:** 65 **Form of the course:** on-site learning	
Number of credits: 5	
Recommended semester: 7.	
Educational level: III.	
Prerequisites:	
Course requirements:	
Learning outcomes:	
Class syllabus:	
Recommended literature:	
Languages necessary to complete the course:	
Notes:	

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers:
Last change:
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KI/3-MDM-025/10	Topological Graph Theory

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

Number of credits: 10

Recommended semester: 1.

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 6

ABS	NEABS
100,0	0,0

Lecturers: prof. RNDr. Martin Škoviera, PhD.

Last change: 02.06.2015

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-025/10	Trends and Applications of Computer Graphics

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

Number of credits: 10

Recommended semester: 4.

Educational level: III.

Prerequisites:

Course requirements:
individual work 100%, examination 0%

Learning outcomes:
The PhD students will acquire the necessary general and specific methodological theoretical knowledge on trends and applications of computer graphics and they will be able to apply them to solve relevant theoretical and practical problems.

Class syllabus:
The course content can be (partially) individualized with regard to the dissertation topic.
Methodology of science, methodology of mathematical modeling and structured engineering design in computer graphics and image processing. Mathematical models relevant to the field of Visual Computing. Digital Processing of Visual Information with regard to the application of projective and affine geometry. Theory of HCI (Human Computer Interface).
(Applications.) CAD / CAM. Real-time rendering, visual effects and computer games. Advanced techniques of special modeling and 3D computer animation. International standardization (philosophy of the MPEG and SEDRIS standards, standardization for geodata and biodata). Medical informatics.

Recommended literature:
Real-time rendering / Tomas Akenine-Möller, Eric Haines, Naty Hoffman. Wellesley : A. K. Peters, 2008
Study materials in Slovak and selected recent papers and monographs in Visual Computing research.

Languages necessary to complete the course:
Slovak and English

Notes:

Past grade distribution Total number of evaluated students: 4	
ABS	NEABS
50,0	50,0
Lecturers: doc. RNDr. Andrej Ferko, PhD.	
Last change: 30.11.2021	
Approved by: prof. RNDr. Róbert Jajcay, DrSc.	

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/3-MNA-003/00	Variational Methods of Solving of PDEs

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

Number of credits: 10

Recommended semester: 3.

Educational level: III.

Prerequisites:

Course requirements:
Exam: oral
Indicative rating scale: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 0/100

Learning outcomes:
To gain theoretical basics of modern numerical methods.

Class syllabus:
Sobolev spaces, generalized solutions of boundary value elliptic problems, Lax-Milgram theorem, Ritz and Galerkin methods, Fredholm alternative, spectral theory, generalized solutions of parabolic and hyperbolic problems.

Recommended literature:
K. Rektorys: Variational Methods in Mathematics, Science and Engineering, SNTL, Praha 1974 (in Czech)
J. Nečas: Les Methodes Discrete en Theorie des Equations Elliptiques, Academia, Praha 1967
J. Wloka: Partial Differential Equations, University Press, Cambridge

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 0

ABS	NEABS
0,0	0,0

Lecturers: prof. RNDr. Michal Fečkan, DrSc.

Last change: 12.03.2022

Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MGT-027/10	Visualisation and Virtual Environments

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

Number of credits: 10

Recommended semester: 2.

Educational level: III.

Prerequisites:

Course requirements:
individual work 100%, examination 0%

Learning outcomes:
The PhD student receives theoretical and practical knowledge of visualization and virtual environments. If it is appropriate and possible, the students will participate in solving problems in a cooperating company, thus achieving practical applications of their theoretical knowledge.

Class syllabus:
The course content can be (partially) individualized with regard to the dissertation topic.
Methodology of scientific and technical visualization. Information visualisation. Visualization techniques and scenarios for geodata and medical data. Special representation (point-based graphics, implicit surfaces, volume graphics). Selected applications.
Virtual environments by Qvortrup. Cyberspace and virtual navigation, interaction and cooperation.
Computer games, visual effects and their programming in real time.
Digital storytelling.

Recommended literature:
The Visual Display of Quantitative Information / Edward R.Tufte. Graphics Press 2001.
Virtual Space / Lars Qvortrup et al. Springer-Verlag London 2002 2002.
The Data Science Design Manual / Steven S. Skiena. Cham: Springer Nature 2017.

Languages necessary to complete the course:
Slovak and English

Notes:

Past grade distribution
Total number of evaluated students: 1

ABS	NEABS
0,0	100,0

Lecturers: doc. RNDr. Andrej Ferko, PhD.

Last change: 30.11.2021
Approved by: prof. RNDr. Róbert Jajcay, DrSc.

COURSE DESCRIPTION

Academic year: 2025/2026

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/3-MAT-811/25	Writing BSc Thesis Assessment Protocol

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

Number of credits: 4

Recommended semester:

Educational level: III.

Prerequisites:

Course requirements:

Learning outcomes:
The student writes a referee report on a Bc-degree thesis.

Class syllabus:
Reading of the Bc-degree thesis in question. Writing a referee report on it.

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 5

ABS	NEABS
100,0	0,0

Lecturers:

Last change: 26.05.2025

Approved by: prof. RNDr. Róbert Jajcay, DrSc.