# Course descriptions

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# COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-002/15 | **Course title:**<br>Analysis of Models in Financial Mathematics |
| **Educational activities:**<br>**Type of activities:** lecture<br>**Number of hours:**<br>**per week:** 2 **per level/semester:** 26<br>**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**<br>Total number of evaluated students: 0 | |

| ABS | NEABS |
|---|---|
| 0,0 | 0,0 |

| |
|---|
| **Lecturers:** prof. RNDr. Daniel Ševčovič, DrSc. |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**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:** 2.

**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**<br>Total number of evaluated students: 4 | |
|---|---|
| ABS | NEABS |
| 100,0 | 0,0 |
| **Lecturers:** doc. RNDr. Peter Guba, PhD. | |
| **Last change:** 22.06.2022 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**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**<br>Total number of evaluated students: 3 | |
| ABS | NEABS |
| 100,0 | 0,0 |
| **Lecturers:** doc. Mgr. Richard Kollár, PhD., prof. RNDr. Marek Fila, DrSc. | |
| **Last change:** 13.03.2022 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**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:** 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: 166

| A | ABS | B | C | D | E | FX | NEABS |
|---|---|---|---|---|---|---|---|
| 50,6 | 43,98 | 0,6 | 0,0 | 0,0 | 2,41 | 0,0 | 2,41 |

**Lecturers:** PhDr. Alena Zemanová

**Last change:** 20.06.2022

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**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:** 2.

**Educational level:** III.

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

**Course requirements:**

**Learning outcomes:**

**Class syllabus:**

**Recommended literature:**

**Languages necessary to complete the course:**

**Notes:**

**Past grade distribution**
Total number of evaluated students: 161

| A | ABS | B | C | D | E | FX | NEABS |
|---|---|---|---|---|---|---|---|
| 54,66 | 38,51 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 6,83 |

**Lecturers:** PhDr. Alena Zemanová

**Last change:** 20.06.2022

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-806/15 | **Course title:**<br>Creation of Teaching Texts and Aids |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 5 **per level/semester:** 65<br>**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**<br>Total number of evaluated students: 7 | |

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

| |
|---|
| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-203/10 | Department Seminar (1) |

**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:** 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: 6

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:** prof. RNDr. Daniel Ševčovič, DrSc., prof. RNDr. Pavol Quittner, DrSc., doc. RNDr. Margaréta Halická, CSc., doc. Mgr. Radoslav Harman, PhD.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-204/10 | **Course title:**<br>Department Seminar (2) |
| **Educational activities:**<br>**Type of activities:**<br>**Number of hours:**<br>**per week:** **per level/semester:**<br>**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: 6

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

| |
|---|
| **Lecturers:** prof. RNDr. Daniel Ševčovič, DrSc., doc. RNDr. Margaréta Halická, CSc., prof. RNDr. Pavol Quittner, DrSc., doc. Mgr. Radoslav Harman, PhD. |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-205/10 | Department Seminar (3) |

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

**Number of credits:** 5

**Recommended semester:** 6.

**Educational level:** III.

**Prerequisites:**

**Course requirements:**

**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. Daniel Ševčovič, DrSc., prof. RNDr. Pavol Quittner, DrSc., doc. RNDr. Margaréta Halická, CSc., doc. Mgr. Radoslav Harman, PhD.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-206/10 | **Course title:**<br>Department Seminar (4) |
| **Educational activities:**<br>**Type of activities:**<br>**Number of hours:**<br>**per week: per level/semester:**<br>**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**<br>Total number of evaluated students: 1 | |

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

| |
|---|
| **Lecturers:** prof. RNDr. Daniel Ševčovič, DrSc., doc. RNDr. Margaréta Halická, CSc., prof. RNDr. Pavol Quittner, DrSc., doc. Mgr. Radoslav Harman, PhD. |
| **Last change:** 02.06.2015 |
| **Approved by:** |

**STATE EXAM DESCRIPTION**

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-990/15 | **Course title:**<br>Dissertation Thesis Defense |
| **Number of credits:** 30 | |
| **Recommended semester:** 7., 8.. | |
| **Educational level:** III. | |
| **State exam syllabus:** | |
| **Last change:** 02.06.2015 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-031/15 | Fundamentals of Mathematical Modelling in Empirical Sciences |

**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. Mgr. Ján Mačutek, PhD.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAMum-202/20 | **Course title:**<br>Fundamentals of Statistical Inference for Applied Mathematics |
| **Educational activities:**<br>**Type of activities:** lecture<br>**Number of hours:**<br>**per week:** 2 **per level/semester:** 26<br>**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. Viktor Witkovský, CSc. |
| **Last change:** 17.07.2020 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-803/15 | Guidance of a Final Thesis or of a Project for the Students´ Conference |

**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: 11

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-804/10 | **Course title:**<br>Guidance of the Students´ Research Project |
| **Educational activities:**<br>**Type of activities:**<br>**Number of hours:**<br>**per week: per level/semester:**<br>**Form of the course:** on-site learning | |
| **Number of credits:** 7 | |
| **Recommended semester:** | |
| **Educational level:** III. | |
| **Prerequisites:** | |
| **Course requirements:** | |
| **Learning outcomes:** | |
| **Class syllabus:** | |
| **Recommended literature:** | |
| **Languages necessary to complete the course:** | |
| **Notes:** | |
| **Past grade distribution**<br>Total number of evaluated students: 0 | |

| ABS | NEABS |
|---|---|
| 0,0 | 0,0 |

| |
|---|
| **Lecturers:** |
| **Last change:** |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-101/15 | **Course title:**<br>Individual Study of Science and Research Resources (1) |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 10 **per level/semester:** 130<br>**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**<br>Total number of evaluated students: 10 | |

| ABS | NEABS |
|---|---|
| 90,0 | 10,0 |

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|---|
| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-104/15 | **Course title:**<br>Individual Study of Science and Research Resources (2) |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 10 **per level/semester:** 130<br>**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: 11

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

| |
|---|
| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-001/15 | Interior-point methods in linear programming |

**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: 2

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:** doc. RNDr. Margaréta Halická, CSc.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**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**<br>Total number of evaluated students: 1 | |
|---|---|
| ABS | NEABS |
| 100,0 | 0,0 |
| **Lecturers:** doc. RNDr. Peter Guba, PhD. | |
| **Last change:** 22.06.2022 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-007/15 | Modern Methods of Convex Optimisation |

**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:**
The student actively participates in the course and gives a talk on an agreed topic.
Scale of assessment (preliminary/final): 100% /0

**Learning outcomes:**
Students become familiar with new fields of convex optimization and with modern algorithmic approaches for solving these problems. They will become familiar with the newest results, trends and open problems in convex optimization.

**Class syllabus:**
Conic convex programming, duality theory on conic convex programming, applications of conic programming in various areas, Theory of interior point methods, interior-point algorithms vor large scale conic problems, conic relaxations.

**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:** doc. RNDr. Mária Trnovská, PhD.

**Last change:** 16.06.2022

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAMum-201/20 | Nonlinear Analysis of Time Series |

**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 |
|---|---|
| 0,0 | 100,0 |

**Lecturers:** RNDr. Anna Krakovská, CSc.

**Last change:** 17.07.2020

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-024/10 | **Course title:**<br>Nonlinear Statistical Models |
| **Educational activities:**<br>**Type of activities:** lecture<br>**Number of hours:**<br>**per week:** 2 **per level/semester:** 26<br>**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: 3

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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| **Lecturers:** prof. RNDr. Andrej Pázman, DrSc., doc. Mgr. Radoslav Harman, PhD. |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-701/15 | **Course title:**<br>Obtaing the Comenius University Grant for the Young |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 20 **per level/semester:** 260<br>**Form of the course:** on-site learning | |
| **Number of credits:** 20 | |
| **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**<br>Total number of evaluated students: 4 | |

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-805/10 | **Course title:**<br>Participation in a Conference Organising Committee |
| **Educational activities:**<br>**Type of activities:**<br>**Number of hours:**<br>**per week:** **per level/semester:**<br>**Form of the course:** on-site learning | |
| **Number of credits:** 3 | |
| **Recommended semester:** | |
| **Educational level:** III. | |
| **Prerequisites:** | |
| **Course requirements:** | |
| **Learning outcomes:** | |
| **Class syllabus:** | |
| **Recommended literature:** | |
| **Languages necessary to complete the course:** | |
| **Notes:** | |
| **Past grade distribution**<br>Total number of evaluated students: 2 | |

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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|---|
| **Lecturers:** |
| **Last change:** |
| **Approved by:** |

**STATE EXAM DESCRIPTION**

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-950/15 | **Course title:**<br>Passing Dissertation Examination |
| **Number of credits:** 20 | |
| **Recommended semester:** 3., 4.. | |
| **Educational level:** III. | |
| **State exam syllabus:** | |
| **Last change:** 02.06.2015 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-403/15 | Presentation at a Homeland Conference or Department Seminar |

**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:** 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: 8

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-401/15 | **Course title:**<br>Presentation at an International Conference |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 20 **per level/semester:** 260<br>**Form of the course:** on-site learning | |
| **Number of credits:** 20 | |
| **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: 12

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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|---|
| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-018/10 | **Course title:**<br>Probability Theory |
| **Educational activities:**<br>**Type of activities:** lecture<br>**Number of hours:**<br>**per week:** 2 **per level/semester:** 26<br>**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: 5

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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|---|
| **Lecturers:** prof. RNDr. Anatolij Dvurečenskij, DrSc. |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-302/15 | **Course title:**<br>Publication in a Reviewed Periodical or Reviewed Almanac |
| **Educational activities:**<br>**Type of activities:** independent work<br>**Number of hours:**<br>**per week:** 15 **per level/semester:** 195<br>**Form of the course:** on-site learning | |
| **Number of credits:** 15 | |
| **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**<br>Total number of evaluated students: 6 | |

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

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|---|
| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-301/15 | 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:** 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: 3

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-030/15 | Random Dynamic Systems |

**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. Katarína Janková, CSc.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-706/15 | Response to a Publication |

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

**Number of credits:** 3

**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:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAM-704/15 | **Course title:**<br>Response to a WoK- or SCOPUS-registered Publication |
| **Educational activities:**<br>**Type of activities:** other<br>**Number of hours:**<br>**per week:** 6 **per level/semester:** 78<br>**Form of the course:** on-site learning | |
| **Number of credits:** 6 | |
| **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**<br>Total number of evaluated students: 0 | |

| ABS | NEABS |
|---|---|
| 0,0 | 0,0 |

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| **Lecturers:** |
| **Last change:** 02.06.2015 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-702/15 | 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:** 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: 11

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

| | |
|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAMum-204/20 | **Course title:**<br>Selected Nonparametric Statistical Methods |
| **Educational activities:**<br>**Type of activities:** lecture<br>**Number of hours:**<br>**per week:** 2 **per level/semester:** 26<br>**Form of the course:** on-site learning | |
| **Number of credits:** 10 | |
| **Recommended semester:** 3. | |
| **Educational level:** III. | |
| **Prerequisites:** FMFI.KAMŠ/3-MAM-018/10 - Probability Theory | |
| **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 |

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| **Lecturers:** doc. RNDr. František Rublík, CSc. |
| **Last change:** 17.07.2020 |
| **Approved by:** |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-003/00 | Selected Topics from Financial Mathematics |

**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:**

**Learning outcomes:**

**Class syllabus:**
- Selected interest rate models
- Multi-period models of portfolio theory
- Derivative pricing with transaction costs
- Portfolio risk management

**Recommended literature:**
Wilmott, P., Dewynne, J, Howison, S.: Option Pricing, Mathematical Models and Computations, UK: Oxford Financial Press, 1995
Kwok, Y.K.: Mathematical models of financial derivatives, Berlin, Springer Verlag, 1998.
Hull, J.: Options, futures and other derivative securities, New York, Prentice Hall, 1989.

**Languages necessary to complete the course:**

**Notes:**

**Past grade distribution**
Total number of evaluated students: 2

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:** doc. Mgr. Igor Melicherčík, PhD.

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-032/16 | Selected Topics in Probability Distributions |

**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., 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: 0

| ABS | NEABS |
|---|---|
| 0,0 | 0,0 |

**Lecturers:** doc. Mgr. Ján Mačutek, PhD.

**Last change:**

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-025/10 | Simulation 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:** 2., 4.

**Educational level:** III.

**Prerequisites:**

**Course requirements:**
Preliminary semester evaluation: projects
Final examination: oral examination
Approximate grade thresholds: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

**Learning outcomes:**
After completing the course, students will be able to use advanced techniques of variance reduction and simulation generation of random vectors and processes.

**Class syllabus:**
Selected methods of simulation sampling of random vectors and random processes (uniform and non-uniform generation on the surface and in the interior of multi-dimensional spheres and polyhedrons, sampling of processes used in financial mathematics). Advanced variance reduction techniques and simulation of rare events.

**Recommended literature:**
Ross S: Simulation, Elsevier Academic Press 2006
Fishman GS: Monte Carlo: Concepts, Algorithms and Applications, Springer 1996
Selected scientific papers

**Languages necessary to complete the course:**
Slovak, English

**Notes:**

**Past grade distribution**
Total number of evaluated students: 6

| ABS | NEABS |
|---|---|
| 83,33 | 16,67 |

**Lecturers:** doc. Mgr. Radoslav Harman, PhD.

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| **Last change:** 08.05.2017 |
| **Approved by:** |

## COURSE DESCRIPTION

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|---|---|
| **Academic year:** 2021/2022 | |
| **University:** Comenius University Bratislava | |
| **Faculty:** Faculty of Mathematics, Physics and Informatics | |
| **Course ID:**<br>FMFI.KAMŠ/3-MAMum-203/20 | **Course title:**<br>Statistical Models for Data 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:** 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 |
|---|---|
| 0,0 | 100,0 |

**Lecturers:** doc. RNDr. Viktor Witkovský, CSc.

**Last change:** 17.07.2020

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-019/10 | Stochastic Models in Insurance and Actuarial 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:** 3.

**Educational level:** III.

**Prerequisites:**

**Course requirements:**
During the semester the student can get 100% points for one written exam, which is usually written at the end of the semester.
Grade thresholds: A: 100.00% – 90.00%; B: 89.99% – 80.00%; C: 79.99% – 70.00%; D: 69.99% – 60.00%; E: 59.99% – 50.00%; Fx: 49.99% – 0.00%.
Scale of assessment (preliminary/final): Practical work during semester 100% / final exam 0%.

**Learning outcomes:**
After completing the course, the student will gain a detailed overview of ruin theory and the Cramér-Lundberg model. He or she will be able to approximate the ruin probability of the insurance company even if the claim size distribution has a heavy right tail. In addition, the student will know the various generalizations of the strong law of large numbers that are used in the field of non-life insurance.

**Class syllabus:**
Probability distributions of small and large claims. Heavy tailed probability distributions: subexponential distributions, long tailed distributions, regularly varying distributions, distributions with fat tails. Risk process in non-life insurance. Cramér-Lundberg model, Cramér-Lundberg theorem. Probability of ruin of an insurance company in finite and infinite time. Generalized versions of the strong law of large numbers. Law of the iterated logarithm.

**Recommended literature:**
Mathematical Methods in Risk Theory / Hans Bühlmann. New York : Springer, 1996;
Modern Actuarial Risk Theory Using R / Rob Kaas, Marc Goovaerts, Jan Dhaene, Michel Denuit. Second Edition, Heidelberg : Springer-Verlag, 2008;
Insurance Risk and Ruin / David C. M. Dickson. First Edition, New York : Cambridge University Press, 2005;
Non-Life Insurance Mathematics / Thomas Mikosch. Second Edition, Heidelberg : Springer-Verlag, 2009.

**Languages necessary to complete the course:**
Slovak, English

| **Notes:** | |
|---|---|
| **Past grade distribution**<br>Total number of evaluated students: 0 | |
| ABS | NEABS |
| 0,0 | 0,0 |
| **Lecturers:** doc. RNDr. Rastislav Potocký, PhD., Mgr. Gábor Szűcs, PhD. | |
| **Last change:** 15.06.2022 | |
| **Approved by:** | |

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-807/10 | Study Stay Abroad |

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

**Number of credits:** 3

**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:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-802/15 | Teaching Practice in the Summer Semester |

**Educational activities:**
**Type of activities:** other
**Number of hours:**
**per week:** 8 **per level/semester:** 104
**Form of the course:** on-site learning

**Number of credits:** 8

**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: 25

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-801/15 | Teaching Practice in the Winter Semester |

**Educational activities:**
**Type of activities:** other
**Number of hours:**
**per week:** 8 **per level/semester:** 104
**Form of the course:** on-site learning

**Number of credits:** 8

**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: 28

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**

## COURSE DESCRIPTION

**Academic year:** 2021/2022

**University:** Comenius University Bratislava

**Faculty:** Faculty of Mathematics, Physics and Informatics

| **Course ID:** | **Course title:** |
|---|---|
| FMFI.KAMŠ/3-MAM-808/15 | Writing Final Thesis Assessment Protocol |

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

**Number of credits:** 2

**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: 15

| ABS | NEABS |
|---|---|
| 100,0 | 0,0 |

**Lecturers:**

**Last change:** 02.06.2015

**Approved by:**