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:	**Course title:**
FMFI.KAMŠ+KMANM/2-MMN-111/15	Algorithms on Networks

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

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
Intermittent assessment: homework (30%), project (15%), project presentation (5%)
Exam: written (50%)
To successfully complete the course, student has to obtain at least 50% of points on the final exam
Final grade: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 60/40

Learning outcomes:
Complex systems can often be represented as a network of a number of interacting components. The aim of the course is to get explore examples of complex networks in applications in physics, informatics, biology and social sciences, as well as with algorithmic, but also computational and statistical methods for the analysis of their behavior.

Class syllabus:
Introduction to networks. Computational complexity. Measures and metrics on networks. Labyrinth exploration. Search for strong digraph components. Optimal paths. Time analysis of projects. The cheapest connection networks. Optimal flows. Project cost analysis. Random network models and their characteristics. Network dynamics.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 192

A	B	C	D	E	FX
19,79	28,13	17,19	18,75	15,1	1,04

Lecturers: prof. RNDr. Ján Plesník, DrSc., Mgr. Katarína Boďová, PhD., Mgr. Andrej Badík

Last change: 24.06.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-104/18	Applied Functional Analysis (1)

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KMANM/2-MMN-104/17

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 122

A	B	C	D	E	FX
4,92	13,11	16,39	26,23	32,79	6,56

Lecturers: doc. RNDr. Vladimír Toma, PhD.

Last change:

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KMANM/2-MMN-110/18	**Course title:** Applied Functional Analysis (2)
Educational activities: **Type of activities:** lecture / practicals **Number of hours:** **per week:** 2 / 2 **per level/semester:** 26 / 26 **Form of the course:** on-site learning	
Number of credits: 5	
Recommended semester: 2.	
Educational level: II.	
Prerequisites:	
Recommended prerequisites: Elements of differential and integral calculus	
Antirequisites: FMFI.KMANM/2-MMN-110/17	
Course requirements: Continuous assessment: handwriting Exam: oral Indicative assessment scale: A 90%, B 80%, C 70%, D 60%, E 50% Scale of assessment (preliminary/final): 30/70	
Learning outcomes: Introduction to linear functional analysis	
Class syllabus: Linear normed spaces, linear functionals and operators, Hahn-Banach Theorem, dual operators, Banach spaces, Banach-Stienhaus Theorem, differences between finite-dimensional and infinite-dimensional spaces, weak convergence, reflexivity, Lebesgue integral, limit theorems, mesasures on product spaces, Fubini theorem, Lp-spaces, Hilbert spaces, theorem on orthogonal projections, Riesz Representation Theorem, Bessel inequality, Fourier coefficients, orthonormal bases, the space of continuous functions, Stone-Weierstrass Theorem, Arzeal-Ascoli Lemma, the dual space of C(I).	
Recommended literature: W. Rudin: Analýza v reálném a komplexním oboru, Academia, Praha, 1977. A. N. Kolmogorov - S. V. Fomin: Základy teórie funkcí a funkcionální analýzy, 1975. A. E. Taylor: Úvod do funkcionální analýzy, Academia, Praha, 1973.	
Languages necessary to complete the course:	
Notes:	

Past grade distribution Total number of evaluated students: 116					
A	B	C	D	E	FX
18,97	17,24	17,24	26,72	18,1	1,72
Lecturers: doc. RNDr. Vladimír Toma, PhD., prof. RNDr. Michal Fečkan, DrSc.					
Last change: 14.03.2022					
Approved by:					

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KMANM/2-MMN-955/15	**Course title:** Applied Mathematics and Statistics
Number of credits: 2	
Educational level: II.	
State exam syllabus:	
Last change: 05.11.2015	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KEF/2-MMN-124/00	Banking

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites: FMFI-FM.KEF/2-MMN-107/00 - Financial Management

Course requirements:

Learning outcomes:

Class syllabus:
Brief Syllabus:
1. Significance of banking and its functions
- issue, distributional, redistributional, savings.
2. Basic types of banking systems
- one-stage, two-stage banking system.
3. Methods of banking systems
- universal, separate, mixed banking.
4. Representations, branches, subsidiaries of CB
- representation, branch, agency, subsidiary.
5. Banking in the EU
- EU's directives for the area of banking.
6. Regulatory organs in SR
- legislative – laws.
7. Capital of commercial bank
- TIER 1, TIER 2, TIER 3, - functions.
8. Basel's agreements about capital
- BASEL 1, BASEL2
9. The influence of Central bank on resources of commercial banks
- minimum reserves requirements, state bonds, treasuries.
10. European system of central banks
- ESCB, Eurosystem, ECB.
11. Retail banking
- bank clients, products, services, distribution.
12. Electronic banking
- types of products, block of products, advantages.

13. Firm’s clientele
- segmentation, institutional clientele.

Recommended literature:
TKÁČOVÁ, Dana a kol.: Finančné trhy a bankovníctvo.
Praha: Wolters Kluwer, 2017. ISBN 978-80-7552-528-4
KANTNEROVÁ, Liběna: Základy bankovnictví. Teorie a praxe. Praha: C. H. Beck, 2016. ISBN 978-80-7400-595-4

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 212

A	B	C	D	E	FX
70,28	22,17	5,19	2,36	0,0	0,0

Lecturers: Mgr. Lucia Paškrtová, PhD.

Last change: 30.01.2021

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KMn/2-MMN-221/00	Compensation Systems

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

Number of credits: 5

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
During the course students work on a complex case study, in which they are asked to make decisions required to manage compensation systems for an organization called FastCat. Students will work in teams consisting of 4-5 members and prepare a team report for each case phase, as well as a presentation of their key decisions and results supported by proper argumentation
Class performance is determined as follows:
FastCat Case Reports + Presentations
FastCat Strategy Statement (team) 10%
Phase 1: Compensation Strategy and Work Structure (team) 15%
Phase 2: Competitive Market Pay and the Pay Structure (team) 15%
Phase 3: Employee Contributions and Pay Increases/Administration (team) 15%
Group Evaluation 10%
In-class activities (or short presentations) 5%
Final Exam (during the exam period) 30%
Scale of assessment (preliminary/final): 70/30

Learning outcomes:
Students are familiarized with the basics of compensation systems, compensable factors, job evaluation methods, pay forms and pay systems. Techniques of creating compensation system in an organization are practiced on FastCat case study.

Class syllabus:
Pay System.
Compensation Strategy.
Internal Alignment.
External Equity.
Compensation Forms.
Relation between Compensation and Motivation.
Employee's Benefits.
Role of Labor Unions in Creating a Compensation System.

International Compensation.

Recommended literature:

1. Newman, J., Gerhart, B., Milkovich, G. 2017. Compensation. 12th edition. New York : McGraw-Hill. https://alis.uniba.sk:8443/lib/item?id=chamo:638100&fromLocationLink=false&theme=Katalog
2. Milkovich, G., Gerhard, B. 2013. Cases in Compensation. 11th edition. ISBN 978-0-945601-00-5
3. Bajzíková, Ľ., Fratričová, J. 2019. Základy personálneho manažmentu: Akademicko-praktický sprievodca v oblastiach manažmentu pracovných výkonov, pracovnej motivácie a odmeňovania. Bratislava: Univerzita Komenského. https://alis.uniba.sk:8443/lib/item?id=chamo:694002&fromLocationLink=false&theme=Katalog

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 21

A	B	C	D	E	FX
52,38	38,1	4,76	0,0	4,76	0,0

Lecturers: prof. Ing. Ľubica Bajzíková, PhD., Mgr. Zuzana Kirchmayer, PhD.

Last change: 10.09.2020

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAG/2-MMN-132/00	Computer Graphics (1)

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
For the semester, the student can get 50% for exercises, 20% for midterm and the final written exam has a weight of 30%. The student must obtain at least half of the points for the exercises as well as for the project in order to pass the final written exam.
Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), Fx (50-0).
Scale of assessment (preliminary/final): Weight of midterm / final assessment: Mid-term assessment 20% (midterm) / + 50% project 30% final exam.

Learning outcomes:
Students will gain knowledge about algorithmic solutions to basic visualization and computer graphics problems. They will acquire knowledge and skills in modeling and displaying graphic objects and static scenes.

Class syllabus:
graphics hardware, software and graphics formats
light and colors, visualization
basics of 2D graphics: rasterization, filling, intersections, clipping
introduction to image processing
homogeneous coordinates and geometric transformations in 2D and 3D
basics of 3D modeling
3D and 2D rendering
texturing, local lighting models and shading, basics of animation

Recommended literature:
Computer graphics and image processing (in Slovak) / Eugen Ruzický, Andrej Ferko. Bratislava : Sapientia, 1995.
Moderní počítačová grafika / Jiří Žára, Bedřich Beneš, Petr Felkel. Praha : Computer Press, 1998
Fundamentals of interactive computer graphics / James D. Foley, Andries van Dam. Reading : Addison-Wesley, 1983
Vlastné elektronické texty vyučujúceho predmetu zverejňované prostredníctvom web stránky predmetu.

Languages necessary to complete the course:
English, Slovak

Notes:
The class can be eventually taught in distant mode, as well.

Past grade distribution
Total number of evaluated students: 264

A	B	C	D	E	FX
39,02	28,41	22,35	7,2	1,14	1,89

Lecturers: doc. RNDr. Andrej Ferko, PhD., Mgr. Adriana Bosáková

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.KAG/2-MMN-133/00	Computer Graphics (2)

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

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
For the semester, the student can get 50% for exercises, 20% for midterm and the final written exam has a weight of 30%. The student must obtain at least half of the points for the exercises as well as for the project in order to pass the final written exam.
Grading: A (100-91), B (90-81), C (80-71), D (70-61), E (60-51), Fx (50-0).
Scale of assessment (preliminary/final): Weight of midterm / final assessment: Mid-term assessment 20% (midterm) / + 50% project 30% final exam.

Learning outcomes:
Students will gain knowledge about algorithmic solutions of more advanced methods of modern computer graphics and Visual Computing. They will acquire an approach to the use of algorithms in terms of efficiency, time and memory requirements. They will acquire knowledge and skills in modeling and displaying graphic objects and static scenes.

Class syllabus:
curves and surfaces in computer graphics
human visual system, psychology of vision
visualization, creation of effective graphic presentations
optics, digital photography,
procedural modeling in 2D and 3D, fractals
advanced imaging methods (raytracing, radiation method)
display channel, OpenGL

Recommended literature:
Computer graphics and image processing (in Slovak) / Eugen Ružický, Andrej Ferko. Bratislava : Sapientia, 1995
Moderní počítačová grafika / Jiří Žára, Bedřich Beneš, Petr Felkel. Praha : Computer Press, 1998
Fundamentals of interactive computer graphics / James D. Foley, Andries van Dam. Reading : Addison-Wesley, 1983
Class materials available from the class web page.

Languages necessary to complete the course:

English, Slovak

Notes:
Eventually, the class is taught online, as well.

Past grade distribution
Total number of evaluated students: 130

A	B	C	D	E	FX
30,77	26,15	19,23	8,46	14,62	0,77

Lecturers: doc. RNDr. Andrej Ferko, PhD., Mgr. Adriana Bosáková

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/2-MMN-106/15	Computer Statistics

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

Number of credits: 3

Recommended semester: 1.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KAMŠ/2-MMN-106/00

Course requirements:
Preliminary semester evaluation: exams;
Examination: test and oral examination;
Approximate grade thresholds: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
Graduates of the course will be able to use R software for basic statistical analysis. They will gain experience in working with real data and will be able to apply in practice the statistical methods from which they have become acquainted in theory in the past.

Class syllabus:
Basics of working with R - arithmetic, logical operators, cycles, working with graphics. Data import and visualization. Descriptive statistics. Confidence intervals and hypothesis testing (normality, equality of means / medians, correlation coefficients). Linear regression. Chi-square goodness of fit test.

Recommended literature:
Statistics / David Freedman; Robert Pisani; Roger Purves. New York : W.W. Norton & Company, cop, 2007

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 170

A	B	C	D	E	FX
12,35	22,35	21,76	28,24	14,71	0,59

Lecturers: Mgr. Jozef Kováč, PhD.
Last change: 10.03.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KIS/2-MMN-136/12	Data Processing for Management and Marketing (Data Mining I)

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

Number of credits: 3

Recommended semester: 2.

Educational level: II.

Prerequisites: FMFI.KMANM/2-MMN-138/18 - Multidimensional Methods in Management (SAS)

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 52

A	B	C	D	E	FX
17,31	34,62	38,46	5,77	0,0	3,85

Lecturers: doc. Ing. Iveta Stankovičová, 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-FM.KIS/2-MMN-236/12	Data Processing for Management and Marketing (Data Mining II)

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

Number of credits: 3

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 32

A	B	C	D	E	FX
40,63	53,13	6,25	0,0	0,0	0,0

Lecturers: doc. Ing. Iveta Stankovičová, 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.KMANM/2-MMN-203/00	Decision Techniques in Management

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: 3

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 40/60

Learning outcomes:

Class syllabus:
Deterministic and stochastic decision analysis in the choice of the best alternative. Models of inventory management. Classification and basic characteristics of waiting line models. Managing projects using critical path method. Practical solution of production management problems by linear programming methods.

Recommended literature:
W. L. Winston, S. C. Albright: Practical Management Science: Spreadsheet Modeling and Application (Duxbury Press, 1997).
Anderson, Sweeney, Williams: Contemporary Management Sciense with Spreadsheets, ITP, South-Western College Publ., 1999.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 371

A	B	C	D	E	FX
54,45	12,4	14,82	3,5	14,56	0,27

Lecturers: doc. RNDr. Vladimír Toma, 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.KMANM/2-MMN-910/00	Diploma Thesis (1)

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: 3.

Educational level: II.

Prerequisites:

Course requirements:
Continuous assessment: individual work
Exam: diploma thesis
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
Elaboration of a part of the diploma thesis according to the instructions of the diploma thesis supervisor.

Class syllabus:
Searching and studying in literature (books and journals) following the type of problem solved.

Recommended literature:
Relevant to the problem solved.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 378

A	B	C	D	E	FX
80,69	11,64	5,29	1,59	0,79	0,0

Lecturers:

Last change: 12.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-911/15	Diploma Thesis (2)

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

Number of credits: 12

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 151

A	B	C	D	E	FX
88,08	6,62	1,32	1,99	1,32	0,66

Lecturers:

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: FMFI.KMANM/2-MMN-991/15	**Course title:** Diploma Thesis Defense
Number of credits: 2	
Educational level: II.	
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.KMANM/2-MMN-920/15	Diploma Thesis Seminar (1)

Educational activities:
Type of activities: seminar
Number of hours:
per week: 1 **per level/semester:** 13
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 171

A	B	C	D	E	FX
92,4	3,51	2,34	0,58	1,17	0,0

Lecturers: doc. RNDr. Vladimír Toma, PhD., doc. PhDr. Daniela Majerčáková, PhD., MBA

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.KMANM/2-MMN-921/00	Diploma Thesis Seminar (2)

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

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
Interim evaluation: elaboration of formal parts and requierments of the final thesis, elaboration of assigned tasks within seminars
Independent work - elaboration of the diploma thesis on the basis of recommendations and consultations with the supervisor
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student is able to process, finalize and submit the thesis prepared on the basis of current legislation, recommendations and relevant literature on the processed issues with strict adherence to the citation technique. Student will process the basic knowledge and results of the final thesis into a presentation for the state exam - the defense of the diploma thesis.

Class syllabus:
Formal requirements of the final thesis. Source citation technique and related possibilities of creation List of used literature or Bibliography. Formal adjustment of graphic elements of the work, control of necessary requiries. Elaboration of the Methodology, Methodical part of the thesis and connection of theoretical, methodical and practical knowledge in the diploma thesis. Presentation skills and expression training.

Recommended literature:
Písanie a obhajoba záverečných prác. Vysokoškolské skriptá pre študentov Univerzity Komenského v Bratislave: Lucia Lichnerová, vyd. Stimul 2016
Jak se vyhnout plagiátorství. Příručka pro studenty: kol. autorov. Univerzita Karlova, Nakladatelství Karolinum. 2020
Currently valid directive of the Rector of Comenius University on the basic requirements for final theses
The rules of Slovak orthography /or equivalent in language of the thesis
Relevant literature related to the topic of the thesis assigned by the supervisor

Languages necessary to complete the course:

English (or another foreign language according to the student's knowledge)

Notes:

Past grade distribution
Total number of evaluated students: 379

A	B	C	D	E	FX
83,38	9,76	4,75	1,32	0,79	0,0

Lecturers: doc. RNDr. Vladimír Toma, PhD.

Last change: 15.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-922/00	Diploma Thesis Seminar (3)

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

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
The syllabus from the first semester is completed following the the needs of concrete diploma thesis.

Recommended literature:
Literature from the first term is competed following the dipploma theses and its finishing needs.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 378

A	B	C	D	E	FX
88,89	6,61	2,12	1,59	0,53	0,26

Lecturers: doc. RNDr. Vladimír Toma, PhD., doc. PhDr. Daniela Majerčáková, PhD., MBA

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-FM.KIS/2-MMN-205/00	E-business and E-market

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

Number of credits: 3

Recommended semester: 3.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
Technology-enabled business transformation, alignment of business and IT, approaches to strategy creation, SWOT analysis, senior management presentations. IT governance, risk management, reporting structure. Software economics, cost management, ROI, time to pay back, outsourcing, utility computing, business and IT metrics, balanced scorecards. Enterprise computing, middleware, business applications (ERP, SCM, CRM, CMS). Systems architecture, components, packages, reuse, open source. Systems integration, database federation, reliable messaging, web-services, SOA, ESB. Case studies based on small and large organisations use of e-business techniques and technology. Internet as a marketing tool. Application of marketing elements in Internet environment. Benefits of Internet for marketing. We are entering the Internet. Intensity of need to participate on Internet. Goals of firm's presence on Internet. Suitability of products. How to attain the set goals effectively? Value of a web page. Value. Value models of web pages. Choice of value model. Promotion on Internet. Basic terminology. Categories and trends of internet advertising. Carriers of internet ads. Introducing search systems. Banner advertising. Other forms of advertising on the Net. Advertising networks. Promotion OFF-LINE. One-to-One marketing. Process of one-to-one marketing. Personalization of internet pages. Benefits of personalization. Customer support. Case study: Promotion of web pages.

Recommended literature:
Fellenstein, C., Wood, R.: Exploring E-commerce, Global E-business, and E-societies, Prentice Hall PTR, 2000
Turban E., Leidner D., McLean E., Wetherbe J., Information Technology for Management: Transforming Organizations in the Digital Economy, 5th Edition, Wiley, New York 2006. ISBN: 978-0-471-70522-2
Knight P., Vysoce efektivní marketingový plán, Grada, Praha 2007, ISBN 978-80-247-1999-3

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 126

A	B	C	D	E	FX
92,86	5,56	0,0	0,79	0,0	0,79

Lecturers: Ing. Jaroslav Vojtechovský, PhD., Mgr. Eva Poráziková

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/1-EFM-380/00	Econometrics

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

Number of credits: 5

Recommended semester: 2.

Educational level: I., II.

Prerequisites: FMFI.KAMŠ/1-EFM-330/00 - Statistical Methods or FMFI.KAMŠ/2-MMN-106/15 - Computer Statistics or FMFI.KAMŠ/2-PMS-107/15 - Regression Models or FMFI.KAMŠ/1-DAV-303/20 - Statistical Methods or FMFI.KAMŠ/1-PMA-510/00 - Basics of Mathematical Statistics

Recommended prerequisites:
Statistical methods 1-EFM-330 or Statistical methods 1-DAV-303 or Computer statistics 2-MMN-106

Course requirements:
Continuing evaluation: project (10%) and test (20%); at least 10% out of 30% are needed to proceed to the final exam
Exam: written exam
Approximate grade thresholds: A 90%, B 80%, C 70%, D 60%, E 50%
Scale of assessment (preliminary/final): 30/70

Learning outcomes:
Students are able to perform standard linear regression analysis and also are able to apply it in real econometric research. They also understand the mathematics behind these methods, being a necessary condition for further studies in this subject.

Class syllabus:
Linear regression, the geometry behind it, and LS-estimators of parameters. Decomposition of the Total Sum of Squares, coefficients of determination, and the Akaike information criterion. Properties of the parameter estimators and of the error term variance estimator. Gauss-Markov theorem. Tests of linear hypotheses about parameters. Restricted regression. Model specification errors and their diagnostic. Dummy variables. Generalized least squares. Heteroscedasticity: testing for and dealing with. Autocorrelation: testing for and dealing with.

Recommended literature:
Johnston J, DiNardo J: Econometric methods 4th ed. McGraw Hill 1997;
Greene W: Econometric Analysis 8th ed. Pearson 2017;
Zvára K: Regrese. MatfyzPress, 2008.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1187

A	B	C	D	E	FX
28,22	16,01	18,37	17,02	16,93	3,45

Lecturers: Mgr. Ján Somorčík, PhD., Mgr. Samuel Rosa, PhD., Pál Somogyi

Last change: 25.06.2022

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/2-EFM-125/00	Economics of Information

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: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:
Continuous assessment four equivalent home-works.
Approximate rating scale: A 100-90%, B 89-80%, C 79-70%, D 69-60%, E 59-50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The student will be able to decide in an asymmetric information environment. It will be able to analyze the relevant models and compose contracts in asymmetric information.

Class syllabus:
Classes of models with asymmetric information. Subjective risk with hidden action or hidden information. Adverse selection. Mechanism design and post-contractual hidden knowledge. Signalling and detection.

Recommended literature:
E. Rasmusen: Games and Information, An Introduction to Game Theory, 4th Edition. Blackwell Publishers, 2006
Mas-Collel, Whinston, Green: Microeconomic Analysis. Oxford University Press, 1995
Fudenberg , Tirole: Game Theory. MIT Press,1998

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 238

A	B	C	D	E	FX
99,16	0,0	0,0	0,0	0,0	0,84

Lecturers: doc. RNDr. Ján Pekár, 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-FM.KEF/2-MMN-112/00	Economy Processes Modelling

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

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Recommended prerequisites:
Conversion of subjects: Statistics, Statistical methods, Managerial Statistics

Course requirements:
Continuous assessment: test, independent work
Exam: Exam
Scale of assessment (preliminary/final): 40/60

Learning outcomes:
The student will learn how to analyze time data using ARMA models. They will also get acquainted with the modeling of economic dynamics, valuation of financial derivatives. Students will perform all analyzes using the Wolfram Mathematica system.

Class syllabus:
Stacionary models of time series ARMA(p,q), kovariance and korrelation function, parcial korrelation function. Nonstacionary and seazon models of time series. The preparation of data on time series analysis by Box – Jenkinson methodology, transformation of data. Choice kovariance, korrelation and partial korrelation function and they usage in model identification of time series. Parameters estimation of a model and the test of its accuracy. Usage of a time series madel on the prognostics of its future values. Difusion processes in finance mathematics, Black-Scholes and Mertonova analysis and odvodenie deriving the finance derivativs.valuation equation. Solution of Black-Scholes equation in the case of call a put options, dividends paying shares ooptions, forwards, futures; exotic and barier options. Numeric solution of finance mathematcs problems – finance trees American options as problems with free boundary for Black-Scholes equation. Numeric methods American options valuation. Diskrete ans continuous models of ekonomic dynamics. Solving and the stability of ekonomic dynamics models.

Recommended literature:
Kalická, J.: študijné materiály k predmetu dostupné online v MS Teams a alebo v Moodle predmetu

Kováč, U.: študijné materiály k predmetu dostupné online v MS Teams a alebo v Moodle predmetu
Hal R. Varian. Computational economics and finance : Modeling and analysis with mathematica. New York : Springer, 1996
Cipra, T.: Analýza časových řad s aplikacemi v ekonomii. Praha : Státní nakladatelství technické literatury, 1986
Komorník, J. - Komorníková, M. - Mikula, K.: Modelovanie ekonomických a finančných procesov. FM UK, Bratislava 1998.
Ritchken, P. : Options: Theory, Strategy and Applications. Scott, Foresman and Comp., USA 1987.

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 422

A	B	C	D	E	FX
50,24	26,07	16,82	4,98	1,9	0,0

Lecturers: doc. Ing. Mgr. Urban Kováč, PhD., doc. RNDr. Jana Kalická, PhD., Dominika Ballová, doc. RNDr. Mária Bohdalová, PhD.

Last change: 15.02.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAI/2-MXX-130/21	Elements of AI

Educational activities:
Type of activities: independent work
Number of hours:
per week: 25 **per level/semester:** 325
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
Passing the online course https://course.elementsofai.com/ (in Enlish or Slovak version).

Learning outcomes:
The student will get acquainted with selected basic concepts of artificial intelligence and their use in solving various practical tasks.

Class syllabus:
1. What is artificial intelligence: related areas, AI philosophy.
2. Troubleshooting and UI: Browsing and troubleshooting, browsing and games
3. Probability and chance, Bayes' theorem, naive Bayesian classification.
4. Machine learning: nearest neighbor classifier, regression.
5. Neural networks: basics, creation, modern techniques.
6. Consequences: on predicting the future, the effects of AI on society, summary.

Recommended literature:
Russell S., Norwig P. (2010). Artificial Intelligence: A Modern Approach, (3rd ed.), Prentice Hall. Available in faculty library.
Marsland S. (2015). Machine Learning: An Algorithmic Perspective, (2nd ed.), CRC Press.

Languages necessary to complete the course:
Slovak or English

Notes:
The course consists of 20 numerical and 5 text-based tasks. Numerical tasks are checked automatically, text-based tasks are evaluated anonymously by students.

Past grade distribution
Total number of evaluated students: 37

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

Lecturers: doc. RNDr. Mária Markošová, PhD.

Last change: 22.08.2021
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KAI/2-MXX-130/21	Elements of AI

Educational activities:
Type of activities: independent work
Number of hours:
per week: 25 **per level/semester:** 325
Form of the course: on-site learning

Number of credits: 2

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
Passing the online course https://course.elementsofai.com/ (in Enlish or Slovak version).

Learning outcomes:
The student will get acquainted with selected basic concepts of artificial intelligence and their use in solving various practical tasks.

Class syllabus:
1. What is artificial intelligence: related areas, AI philosophy.
2. Troubleshooting and UI: Browsing and troubleshooting, browsing and games
3. Probability and chance, Bayes' theorem, naive Bayesian classification.
4. Machine learning: nearest neighbor classifier, regression.
5. Neural networks: basics, creation, modern techniques.
6. Consequences: on predicting the future, the effects of AI on society, summary.

Recommended literature:
Russell S., Norwig P. (2010). Artificial Intelligence: A Modern Approach, (3rd ed.), Prentice Hall. Available in faculty library.
Marsland S. (2015). Machine Learning: An Algorithmic Perspective, (2nd ed.), CRC Press.

Languages necessary to complete the course:
Slovak or English

Notes:
The course consists of 20 numerical and 5 text-based tasks. Numerical tasks are checked automatically, text-based tasks are evaluated anonymously by students.

Past grade distribution
Total number of evaluated students: 37

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

Lecturers: doc. RNDr. Mária Markošová, PhD.

Last change: 22.08.2021
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/1-MXX-233/13	English Conversation Course (1)

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

Number of credits: 2

Recommended semester: 1., 3.

Educational level: I., II.

Prerequisites:

Course requirements:
tests, presentations, essays
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
Continual improvement of all language skills focused on communication/speaking, listening comprehension and writing. The emphasis is on discourse, lexicology and morphology, word-bank broadening of communicational English as well as English for specific purposes appropriate for university students. This course is a follow up of the previously taught ESP course.

Class syllabus:
This course's focus is to broaden spoken/communicational English for students with B2/C1 level of English knowledge.

Recommended literature:
Appropriate study material is supplied based on the participants'level of English by the lecturer. (Sources- The Guardian, The Herald Morning Sun. The Nine News, The West Australian, BBC News and podcasts, CNN podcasts).

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 215

A	B	C	D	E	FX
67,44	13,02	6,51	1,86	1,4	9,77

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022
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/1-MXX-234/13	English Conversation Course (2)

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

Number of credits: 2

Recommended semester: 2., 4.

Educational level: I., II.

Prerequisites:

Course requirements:
tests, oral presentations, essays
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
Continual improvement of all language skills focused on communication/speaking, listening comprehension and writing. The emphasis is on discourse, lexicology and morphology, word-bank broadening of communicational/spoken English as well as English for specific purpose appropriate for university students. This course is a follow up of the Conversational English course 1.

Class syllabus:
This course's focus is to broaden spoken/communicational English for students with B2/C1 level of English knowledge(Upper-Intermediate/Lower Advanced).

Recommended literature:
Appropriate study material is supplied based on the participants'level of English by the lecturer. (Sources- The Guardian, The Herald Morning Sun. The Nine News, The West Australian, BBC News and podcasts, CNN podcasts).

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 146

A	B	C	D	E	FX
77,4	12,33	3,42	1,37	0,0	5,48

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-130/15	Finance and Insurance Mathematics in MS-Excel

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

Number of credits: 3

Recommended semester: 2.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KMANM/2-MMN-130/00

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 145

A	B	C	D	E	FX
84,14	5,52	4,14	6,21	0,0	0,0

Lecturers: RNDr. Peter Švaňa, 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-FM.KEF/2-MMN-224/10	Financial Accounting and Analysis

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

Number of credits: 5

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
The aim of the subject is to explain the nature and methodology of keeping an enterprise's accounting as part of the enterprise information system

Class syllabus:
Accounting as part of the enterprise information system. Functions and basic structure of accounting. Account information users. Property scroll and its display in accounting. Valuation of assets and liabilities in accounting. Financial Statements and Financial Statements. Basic company accounts (balance sheet, profit and loss statements). Cash flow management. Business liquidity management. Fundamentals of financial analysis. Analysis of financial statements. Analysis of financial statements and their use by different users.

Recommended literature:
[1] SAXUNOVÁ, D. 2019. Financial Statements for the Needs of Managers -Global Accounting Standards : US GAAP and IFRS. Prague : Wolters Kluwer, 2019.
[2] Internetové zdroje na webových sídlach: www.ifrs.org, www.fasb.org.
[3] Stickney, Weil – Financial Accounting and Analysis – theory, analysis and interpretations, 13th edition, 2010
[4] Kimmel, Weyghand, Kieso - Financial Accounting - Tool for decision making, 2015 Wiley or latest edition

Languages necessary to complete the course:
English

Notes:

Past grade distribution Total number of evaluated students: 16					
A	B	C	D	E	FX
31,25	37,5	12,5	12,5	6,25	0,0
Lecturers: prof. RNDr. Darina Saxunová, PhD.					
Last change: 19.01.2021					
Approved by:					

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KEF/2-MMN-107/00	Financial Management

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Recommended prerequisites:
Basics of Financial Management, Money and Banking

Course requirements:
Continuous assessment: active participation in classes, continuous test, condition for the exam ismin. 70% of the interim evaluation (i.e. 21 points)
Exam: written exam - theoretical and computational part
Scale of assessment (preliminary/final): 30/70

Learning outcomes:
The course deepens knowledge and understanding of the basics of financial management, brings another dimension of financial manager's practice and emphasizes its role in deciding on the optimal capital structure of the company, profitability and risk in capital budgeting, selected issues of management and control of current components. It also deals with the issue of financial investments and the creation of a portfolio of securities, financial derivatives and their use in the financial management of the company, as well as sustainable investments and valuation of businesses and their assets based on the ESG methodology. Explains selected issues of international financial management and current trends in financial markets.

Class syllabus:
Project cash flow analysis; factors that affect them, the value of the project management option, evaluation of projects with unequal life span, the optimal economic life of the project, inflationary effects on project cash flows
Risk analysis and optimal capital budget: project risk, sensitivity analysis and analysis of possible scenarios, Monte Carlo simulation, decision trees, optimal capital budget, capital rationalization
Long-term financial planning: linear and nonlinear forecasting models, financial control system
Introduction to the theory and practice of capital structures: business risk and factors that affect it, financial risk, basic theories of capital structures, optimal capital structure.
Dividend policy: theories of investor preferences, residual dividend model, factors influencing the company's dividend policy.

Sources of long-term financing: stock markets, organized exchanges and OTC markets, advantages and disadvantages of ordinary shares, investment banking process, bonds and their rating, advantages and disadvantages of financing from foreign sources, basic characteristics of leasing, advantages of leasing financing, priority shares - advantages and disadvantages, warranties, convertible bonds
Current assets management, cash management, inventory management and receivables management
Short-term financing: asset financing - aggressive and conservative approach, alternatives to current assets financing, lending techniques, factoring
Cash Conversion Cycle: Conversion Cycle, Baumol Model, Optimal Cash Transfer, Monte Carlo Simulation and Cash Security Level, Cash Budgeting

Recommended literature:
Financial management. Theory and practice: Eugene F. Brigham, Michael C. Ehrhardt. Cengage Learning, 16th edition, 2019
Principles of Corporate Finance: Richard A. Brealey, Stewart C. Myers, Franklin Allen. McGraw Hill, 13th edition, 2019
Relevant professional and scientific journals and statistical data portals

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 413

A	B	C	D	E	FX
23,24	30,75	20,1	15,01	9,69	1,21

Lecturers: doc. PhDr. Daniela Majerčáková, PhD., MBA

Last change: 15.03.2022

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/1-MXX-141/00	French Language (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
French language is taught at two levels: beginner and intermediate. Students opt for one of them depending on whether they wish to obtain the fundamentals of the language or wish to maintain and/or improve previous knowledge of French.

Recommended literature:
Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 435

A	B	C	D	E	FX
45,75	20,0	18,85	8,74	2,3	4,37

Lecturers: Mgr. Ľubomíra Kožehubová

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/1-MXX-142/00	French Language (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
The subject continues the program of French language (1) and provides courses of essential and intermediate French language.

Recommended literature:
Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 265

A	B	C	D	E	FX
38,87	25,28	19,62	10,19	2,64	3,4

Lecturers: Mgr. Ľubomíra Kožehubová

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/1-MXX-241/00	French Language (3)

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

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
The subject provides a course of intermediate French language, covering not only general, but also technical language.

Recommended literature:
Capelle Guy, Menand Robert: Le Nouveau taxi 1, Hachette FLE Paris, France 2009, ISBN 978-2-01-155548 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 104

A	B	C	D	E	FX
39,42	27,88	21,15	6,73	0,96	3,85

Lecturers: Mgr. Ľubomíra Kožehubová

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/1-MXX-242/00	French Language (4)

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

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
The subject provides a course of intermediate French covering not only general, but also technical French language.

Recommended literature:
Menand Robert: Le Nouveau taxi 2, Hachette FLE, Paris, France 2009, ISBN 978-2-01-155551 - 9

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 74

A	B	C	D	E	FX
41,89	32,43	17,57	2,7	1,35	4,05

Lecturers: Mgr. Ľubomíra Kožehubová

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/1-MXX-151/00	German Language (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
To master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Class syllabus:
German language is taught at three levels: beginner, intermediate and advanced. Students opt for one of them depending on whether they need to learn the fundamentals or maintain and/or improve their previous knowledge.
This course's focus is to master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Recommended literature:
Appropriate study material is supplied by teacher based on the participants'level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 734

A	B	C	D	E	FX
36,1	27,25	19,62	8,99	2,72	5,31

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

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/1-MXX-152/00	German Language (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
To master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Class syllabus:
German language is taught at two levels: beginner and intermediate. Students opt for one of them depending on whether they wish to obtain the fundamentals of the language or wish to maintain and/or improve previous knowledge of German.
This course's focus is to to master the fundamentals of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency)

Recommended literature:
Appropriate study material is supplied by teacher based on the participants'level of German proficiency

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 480

A	B	C	D	E	FX
36,04	20,21	20,83	13,13	3,33	6,46

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

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/1-MXX-251/00	German Language (3)

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

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Master the basics of general language and basic professional terminology of individual fields of study (depending on the advanced level of students)

Class syllabus:
The course is a follow-up to the German language (1,2). The subject provides a course of intermediate or advanced German language.
This course's focus is to deepen the knowledge of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency).

Recommended literature:
Appropriate study material is supplied by teacher based on the participants'level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 165

A	B	C	D	E	FX
41,21	25,45	20,61	6,67	2,42	3,64

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

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/1-MXX-252/00	German Language (4)

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

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Master the basics of general language and basic professional terminology of individual fields of study (depending on the advanced level of students)

Class syllabus:
The course is a follow-up to the German language (1-3). It provides a course of intermediate and advanced German language.
This course's focus is to deepen the knowledge of the common language and basic technical terms of particular fields of study (depending on the student's level of German proficiency).

Recommended literature:
Appropriate study material is supplied by teacher based on the participants'level of German proficiency.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 90

A	B	C	D	E	FX
42,22	24,44	12,22	12,22	3,33	5,56

Lecturers: Mgr. Alexandra Maďarová, Mgr. Simona Tomášková, PhD.

Last change: 21.06.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-139/19	Guide on Investments in Financial Markets in Practice

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: 3

Recommended semester: 1., 3.

Educational level: I., II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 36

A	B	C	D	E	FX
33,33	38,89	22,22	5,56	0,0	0,0

Lecturers: RNDr. Miron Zelina, CSc.

Last change: 03.05.2020

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/2-EFM-126/00	Industrial Organization

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: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:
Continuous assessment four equivalent home-works.
Approximate rating scale: A 100-90%, B 89-80%, C 79-70%, D 69-60%, E 59-50%
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
Students will be able to recognize the individual types of markets to build their models and look for equilibrium outputs.

Class syllabus:
Marker structure and competition: perfect competition; monopoly; oligopoly; costs.
Obstacles in entering the market, fusions. Vertical obstacles and vertical connecting.
Firms' entering to market, leaving market, obstacles by entering.
Strategies of price determination and product differentiation.
Fusions, cartels, agreements.
Research and development: investments to research and development, licences.
Advertisement. Marketing strategies. Quality and endurance of products.

Recommended literature:
Industrial organization : Theory and applications / Oz Shy. Massachusetts : The MIT Press, 1995
The Theory of Industrial Organization. Cambridge, Mass. : MIT Press, 1997.

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 211

A	B	C	D	E	FX
97,16	2,37	0,0	0,0	0,0	0,47

Lecturers: doc. RNDr. Ján Pekár, 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-FM.KEF/2-MMN-222/00	Investment Analysis

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

Number of credits: 5

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 40/60

Learning outcomes:
The aim of the subject is to deepen student's knowledge about financial markets, its problems and risks, as well as about some products, which are tradeable at those markets. The purpose of the course is also familiarization of basic methods and techniques of investing to stocks and bonds.

Class syllabus:
International financial management: purchasing power parity, unsecured interest rate parity, term parity, covered interest rate parity, yield of investment in foreign country, effect of global diversification, examples of global investment strategies, financial markets correlation.
Acquisition and mergers: some reasons for acquisitions and mergers, tactics and defence during mergers and acquisitions, forms of business combinations, structure of supply for take over, tasks of investment banks during mergers and acquisitions.
Financial risks: types of financial risks, value at risk (VaR), measurement of interest risk by VaR, surveying of interest positions, VaR and diversification effects, VaR of investment portfolios, project's impact on VaR, cash-flow at risk (CaR).
Financial derivates and hedging of risks: basic types of financial derivates, standardization of financial derivates, long- and short- position, term-contracts pricing, hedging of open positions, risk factors, examples of complicated hedging techniques, option parity, replication of option position, option pricing methods, riskless arbitrage, dynamic data-hedging, sensitivity parameters, interest and currency swap.
Duration and immunization: yield curves and interest structures, Macaulay duration, present value effect and reinvesting effect while investing to bonds, modified duration, effective duration and key-rate duration, immunization of open bond positions.

Recommended literature:
Brigham, E. F., Ehrhardt, M. C.: Financial Management, 11th Edition, Thomson, South-Western, 2005

Z.S. Blaha, I. Jindřichovská: "Opce, swapy, futures - deriváty finančního trhu", 2. vydanie, Management Press, Praha 1997, ISBN: 80-85943-29-8
Prednáška "Investičné analýzy"
Odporúčaná:
Brealey, R. A., Myers, S. C.: Principles of Corporate Finance, 7th Edition, McGraw Hill, 2003

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 99

A	B	C	D	E	FX
26,26	24,24	21,21	10,1	18,18	0,0

Lecturers: doc. PhDr. Daniela Majerčáková, PhD., MBA

Last change: 09.03.2018

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KIS/2-MMN-129/00	Management Information Systems

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

Number of credits: 5

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 60/40

Learning outcomes:

Class syllabus:
- The Challenge and Strategic Role of Information Systems
- Organizational Foundations of Information Systems
- Information Systems Implementation
- The Role of the Information System in Promoting Quality
- Building Information Systems: Contemporary Approaches
- Management and Organizational Support Systems
- Managing Contemporary Information Systems

Recommended literature:
Laudon J.P., Laudon K.C., Management Information Systems & Multimedia Student CD Package, 10/E, ISBN-10: 0132337746, ISBN-13: 9780132337748, Prentice Hall, New York 2007
James A. O'Brien, Management Information Systems, 7/e, McGraw-Hill Higher Education, Boston 2006, ISBN: 007293588x

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 14

A	B	C	D	E	FX
28,57	7,14	42,86	21,43	0,0	0,0

Lecturers: prof. RNDr. Michal Greguš, PhD., doc. Ing. Jaroslava Kniežová, 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-FM.KEF/2-MMN-126/18	Managerial Accounting

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: 3

Recommended semester: 2.

Educational level: II.

Prerequisites:

Antirequisites: FMFI-FM.KEF/2-MMN-126/00

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 38

A	B	C	D	E	FX
50,0	15,79	26,32	2,63	2,63	2,63

Lecturers: prof. RNDr. Darina Saxunová, PhD., Mgr. Lenka Papíková, PhD.

Last change:

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI-FM.KSP/2-MMN-125/00	**Course title:** Managerial Decision-Making

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

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Recommended prerequisites:
Finished bachelor degree.

Course requirements:
The overall evaluation is in accordance with the faculty evaluation system: A = 91-100%; B = 81 90%; C = 73-80%; D = 66-72%; E = 65-60%; F = 0-59%.
Scale of assessment (preliminary/final): Scale of assessment (preliminary/final): Ongoing: 40% / Exam: 60%. The exam consists of the written mid-term exam during the semester 30% and of the final exam during the examination period 30%.

Learning outcomes:
Decision-making belongs to main responsibilities and functions of the managers and managers are regarded and evaluated in terms of success in making decisions. The goal of the course is to improve the decision-making skills of students and to contribute to their ability to effectively and creatively solve problems both individually and within the teams. The course graduates would learn to perceive decision-making as a systematic process in the context of problem solving. They would be able to use rational methods of decision-making under conditions of certainty, risk and uncertainty as well as to solve the sequence of successive decisions. They would sense the psychological perspective of the decision-making. They would be familiar with the techniques of decision-making in groups and teams. They would practice the gained theoretical knowledge practically by means of the various simulations and case studies.

Class syllabus:
1. Introduction into the subject. Decision-making in management. The nature of managerial decision-making. The decision-making process.
2. The rational approaches in the managerial decision-making. Methods and approaches of the decision-making under certainty, uncertainty and risk. The sequence of decisions and decision trees.
3. The psychological aspect of managerial decision-making. The two systems in us. The heuristics of anchoring, availability and representativeness. The prospect theory. The irrational types of choices. The limits of the human mind.

4. The group decision making. Defining the group's assignment, planning and organizing the overall group effort and staffing the decision group. Directing and controlling the group meeting. The creative methods and techniques of group decision-making.

Recommended literature:

DOUMPOS, M. et al.: New Perspectives in Multiple Criteria Decision Making : Innovative Applications and Case Studies. 2019. Available on the Internet: https://link.springer.com/book/10.1007/978-3-030-11482-4.
GRÜNIG, R. – KÜHN, R.: Successful Decision-making : A Systematic Approach to Complex Problems. 1st ed. Berlin : Springer, 2005. 231 p. ISBN 3-540-24307-0.
KAHNEMAN, D.: Thinking, Fast and Slow. NY : Farrar, Straus and Giroux, 2011. 499 p. ISBN 978-0-374-53355-7.
MONAHAN, G.: Management Decision Making. Cambridge : Cambridge University Press, 2007. ISBN 978-0-521-78118-3.
THALER, R. – SUNSTEIN, C.: Nudge : The Final Edition. Penguin Books, 2021, 384 p. ISBN 978-0143137009.
The recommended literature also includes publications using the results of our own research.
GÁL, P. – HOLIENKA, M. – HOLIENKOVÁ, J.: Decision-making of student entrepreneurs: positive, creative, fast, and simultaneously wise. In: International conference on Decision making for small and medium-sized enterprises : Conference proceedings. Karvina : Slezska univerzita v Opave, 2019. s. 88-95 [online]. ISBN 978-80-7510-339-0.
GÁL, P.: Marketing Implications of Framing in the Decision-Making, In: Acta Univ. Agric. Silvic. Mendel. Brun, 2018, 66(5): 1267 – 1273, doi: 10.11118/actaun201866051267.
GÁL, P. – MRVA, M. – GAJDOŠOVÁ, Z.: The cognitive reflection test and the propensity to use heuristics in decision making. In: Comenius Management Review, 2014, 8(2), 29-40. ISSN 1337-6721.
GÁL, P. – MRVA, M. – MEŠKO, M.: Heuristics, biases and traps in managerial decision making. In: Acta Univ. Agric. Silvic. Mendel. Brun, 2013, 61(7), 2117-2122; ISSN 1211-8516. doi:10.11118/actaun201361072117.
MRVA, M. – GÁL, P. – MEŠKO, M. – MARCIN, P.: Heuristics in the Process of Decision-Making. In: Comenius Management Review, 2013 7(2): 28-40. ISSN 1337-6721.
Materials from the Erasmus+ project ARTCademy: https://www.artcademy.eu/.
Other materials might be distributed throughout the semester to individual problem areas.
Students need remote access to the Internet through the Comenius University network proxy.

Languages necessary to complete the course:

Slovak / English.

Notes:

Subject is provided only in the summer semester.
The course might be taught online through MS Teams.
In compliance with the regulations of the internal regulation No. 16/2017 Rector's Directive Comenius University in Bratislava Full reading of the internal regulation No. 23/2016 Rector's Directive Comenius University in Bratislava, which issues the Code of Ethics of the Comenius University in Bratislava as read in supplement No. 1, every student acquires his/her study results honestly; does not cheat and use dishonest practices during any form of assessment of his/her acquired knowledge. Cases of breaking the Code of Ethics of Comenius University can be judged as breaking the duties following from legal regulations, (...). Such judgement may be connected with enforcing accompanying legal consequences on academic, (...) disciplinary level.
In accordance with the regulations of the internal regulation No. 13/2018 approved by the Academic senate of Comenius University in Bratislava the Disciplinary Regulations of Comenius

University in Bratislava for Students, a disciplinary offence of a student is any form of copying or forbidden cooperation or providing answers during written or oral examination (assessment of knowledge) or during preparation for it within the course, or using technical devices or any information carriers in other than allowed ways during written or oral evaluation of study results (assessment of knowledge) or during preparation for it within the course. Committing a disciplinary offence may lead to imposing some disciplinary precautions on the student: admonition, conditional suspension of studies or dismissal from studies.

Past grade distribution

Total number of evaluated students: 151

A	B	C	D	E	FX
22,52	33,11	22,52	11,92	9,93	0,0

Lecturers: Mgr. Peter Gál, PhD.

Last change: 04.04.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KMk/2-MMN-122/00	Marketing Management

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 50/50

Learning outcomes:

Class syllabus:

Recommended literature:
1. PAJTINKOVÁ BARTÁKOVÁ, G. – GUBÍNIOVÁ, K. 2012. Udržateľný marketingový manažment. Trenčín : Inštitút aplikovaného manažmentu, 2012. ISBN 978–80–89600–08–3
2. BARTÁKOVÁ, Gabriela a kolektív. 2007. Marketing manažment II – ako v súčasnom trhovom prostredí postupovať. Bratislava : 228 s.r.o., 2007. ISBN 978-80-969856-1-6
3. KOTLER, P. 2010. Chaotika: Manažment a marketing firiem v turbulentných časoch. Bratislava : Eastone Books, 2010. ISBN 978-80-8109-114-8

Languages necessary to complete the course:
Sloavk, English

Notes:

Past grade distribution
Total number of evaluated students: 227

A	B	C	D	E	FX
22,03	25,99	22,03	14,1	13,22	2,64

Lecturers: doc. Ing. Gabriela Pajtinková Bartáková, PhD., doc. JUDr. PhDr. Katarína Gubíniová, 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-FM.KMk/2-MMN-127/00	Marketing Research

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

Number of credits: 5

Recommended semester: 4.

Educational level: II.

Prerequisites:

Recommended prerequisites:
Marketing management

Course requirements:
40 % research project. Evaluation will be based on the quality level of the research project.
60 % final test. Final test will be composed as combination of open and closed questions from lectures and project. Written, online test using the selected application (MS Forms)
Electronic communication and method of distribution of study materials is carried out by MS Teams application.
The semester project is elaborated continuously at individual seminars, namely the assignment is always given one week in advance at the seminar. Students can work on the semester project in groups. Semester project is handed out without the possibility of additional adjustments and additional exchanges.
Exam dates will be determined based on the coordination of dates no later than 1 week before the start of the exam period.
In accordance with the provisions of internal regulation no. 16/2017 Directive of the Rector of Comenius University in Bratislava Full text of internal regulation no. 23/2016 Directive of the Rector of Comenius University in Bratislava, which issues the Code of Ethics of Comenius University in Bratislava, as amended by Supplement no. 1, each student always achieves his / her study results in an honest manner; does not deceive or use dishonest practices during any form of verification of his / her study knowledge and skills. Cases of breach of the UK Code of Ethics may be considered a breach of legal obligations, (...). Such an assessment may involve the application of appropriate legal consequences at the academic, (...) disciplinary level.
In accordance with the provisions of internal regulation no. 13/2018 approved by the Academic Senate of Comenius University in Bratislava Disciplinary Code of Comenius University in Bratislava for students, student disciplinary offense is any form of depreciation or illegal cooperation or counselling during written or oral evaluation of study results (knowledge testing) or during preparation for it within the subject , or the use of technical devices or any information

carriers in a manner other than permitted during the written or oral assessment of learning outcomes (knowledge testing) or during preparation for the subject. Some of the disciplinary measures can be imposed on a student for a disciplinary offense: reprimand, conditional expulsion from study or expulsion from study.
Scale of assessment (preliminary/final): 40/60

Learning outcomes:
After completing the course students will be able to analyze and interpret data that are used in marketing practice. They will obtain the ability and skills required to work in managerial and professional positions using the information in the context of marketing management. Students will be eligible to solve complex problems related to research and they will be able to analyze the market and customers.

Class syllabus:
1. The role of marketing research in management of marketing activities – introduction.
2. Process of marketing research.
3. Typology of marketing research.
4. Survey as marketing research method.
5. Observation as marketing research method.
6. Experimental design in marketing research.
7. Sampling.
8. Panel research and omnibus research.
9. Data analysis – descriptive analysis: one-dimensional, two-dimensional and multidimensional descriptive analysis.
10. Hypothesis testing.
11. Data analysis – advanced analysis: regression analysis, correlation coefficient, factor analysis.
12. Data analysis – advanced analysis: structural equation modeling, cluster analysis and conjoint analysis.
13. Tendencies in the development of marketing research.

Recommended literature:
• BRADLEY, N., 2013. Marketing Research tools and Techniques. Oxford: Oxford University Press, 2013. ISBN 978-0-19-965509-0
• HAGUE, P. N., HAGUE, N., 2004. Market Research in Practice: A Guide to the Basics. Pages: 257, Publisher: Kogan Page Ltd, 2004. E-source: <http://site.ebrary.com/lib/uniba/Doc?id=10084442>
• CHURCHILL, A. G. – IACOBUCCI, D., 2010. Marketing Research. Methodological Foundations. South-Western, Cengage Learning, 2010. ISBN 0-538-74377-8
• KOZEL, R., 2006. Moderní marketingový výzkum. Praha: Grada Publishing, 2006. [online]. Available from: <http://books.google.sk/books?id=1EfM8GQiOBcC&dq=marketingov%C3%BD+v%C3%BDzkum&source=gbs_navlinks_s>
• KUMAR, V., 2015. Marketing research. A global Outlook. New Dehli: Sage Publications, 2015. ISBN 978-93-515-0248-7
• OLŠAVSKÝ, F., 2016. Brands, net disposable income and consumer behavior of Slovaks. In: Management in theory and practice. Praha: Newton College, 2016. ISBN 978-80-87325-08-7
• RICHTEROVÁ, K. a kol. 2007. Marketingový výskum. Bratislava: Ekonóm, 2007. ISBN 80-225-2362-2
• SCHARRER, E. a RAMASUBRAMANIAN, S., 2021. Quantitative Research Methods in Cmmunication. The Power of Numbers for Social Justice. Rountledge, 2021. ISBN 978-0-367-54785-1

• TAHAL, R. a kol. 2017. Marketingový výzkum. Postupy, metody, trendy. Praha: Grada Publishing, 2017. ISBN 80-271-0206-8
• VOKOUNOVÁ, D. a kol. 2004. Praktikum z prieskumu trhu. Bratislava: Ekonóm, 2004. ISBN 80-225-1753
• Trend, Journal of International Marketing and Marketing Science and Inspirations journals

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 93

A	B	C	D	E	FX
46,24	30,11	22,58	0,0	1,08	0,0

Lecturers: Mgr. František Olšavský, PhD., Mgr. Lucia Vilčeková, PhD.

Last change: 16.02.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-237/15	Mathematical Skills in Management

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

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 70/30

Learning outcomes:
To acquaint students with basic concepts and methods of marketing research, work with data and work with databanks. To prepare students to work in companies as individuals and as a team.

Class syllabus:
Individual in the company, team tasks, presentation skills, SQL, working with database, searching for essential data for marketing goal, internal and external databases, analysis of company data, collection and analysis of external data, special data analysis, report creation, presentable and interesting presentation .

Recommended literature:
Jones Arie D., Plew Ronald R., Stephens Ryan K., Naučte se SQL za 28 dní, 978-80-251-2700-1
Richterová K., Prieskumy pre marketingový manažment SOFA 2009
Kotler P., Moderní marketing, Grada 2007

Languages necessary to complete the course:
Slovak

Notes:

Past grade distribution
Total number of evaluated students: 122

A	B	C	D	E	FX
92,62	4,92	1,64	0,0	0,82	0,0

Lecturers: Mgr. Lukáš Polesňák

Last change: 25.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI-FM.KEF/2-MMN-128/00	Monetary Theory and Policy

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

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 50/50

Learning outcomes:
Expand the lessons learned from managing monetary policy and applying monetary criteria in managing the national economy.

Class syllabus:
The objectives of monetary policy in monetary theory and practice. Money and currency. Money theories and methods of money issuance. Theory of Interest. Monetary equilibrium and monetary stability - the conditions for its security and the consequences of the disturbance. The issue of inflation as a monetary phenomenon, determining the diagnosis of inflation. Anti-inflationary policy and disinflation costs. The theory of rational expectations and its application in monetary policy. Money supply. Targets, limits and instruments of monetary policy. External balance, foreign exchange rates and balance of payments. Coordination of monetary and budgetary policies. NBS monetary policy. Monetary policy within the EMU.

Recommended literature:
Irena Hlavatá: Menová teória a politika. Vydavateľstvo Ekonóm, Bratislava 1996.
Frederic S. Mishkin: The Economics of Money, Banking and Financial Markets, (second edition), Scott, Foresman and Company, Gleniew - Illinois - Boston - London 1989.

Languages necessary to complete the course:
English

Notes:

Past grade distribution
Total number of evaluated students: 210

A	B	C	D	E	FX
44,76	36,19	15,71	2,38	0,48	0,48

Lecturers: PhDr. Štefan Rychtárik, PhD.
Last change: 13.03.2018
Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-138/18	Multidimensional Methods in Management (SAS)

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

Number of credits: 3

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 18

A	B	C	D	E	FX
27,78	27,78	22,22	0,0	0,0	22,22

Lecturers: doc. Ing. Iveta Stankovičová, 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.KAI/2-MMN-207/00	Multimedia for Management

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

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 50/50

Learning outcomes:

Class syllabus:
Introduction to multimedia, history, basic definitions and concepts, the future of multimedia.
Multimedia personal computer: HW and SW. Sound in multimedia: MIDI standard, sequencer, computer music. Practical examples of sound processing: wav, mid.
The authoring SW, presentation programmes, examples (encyclopaedias, teaching programmes).
Usage of text, graphics, animations and video in multimedia products.
Video: NLE (nonlinear video editing) - practical examples.
Communication and multimedia (hypermedia, videoconferencing, up-to-date MM technologies).

Recommended literature:
Computer oriented journals.
Original manufacturer's manuals for MM SW and HW.
Specialised Web pages devoted to multimedia.
Other available literature.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 384

A	B	C	D	E	FX
66,67	22,4	6,25	3,91	0,0	0,78

Lecturers: Ľubomír Lúčan, 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.KMANM/2-MMN-101/18	Numerical Methods (1)

Educational activities:
Type of activities: lecture / practicals
Number of hours:
per week: 2 / 1 **per level/semester:** 26 / 13
Form of the course: on-site learning

Number of credits: 4

Recommended semester: 1.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KMANM/2-MMN-101/00

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 425

A	B	C	D	E	FX
15,29	25,65	21,65	22,35	14,35	0,71

Lecturers: Mgr. Jela Babušíková, 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.KMANM/2-MMN-102/18	Numerical Methods (2)

Educational activities:
Type of activities: lecture / practicals
Number of hours:
per week: 2 / 1 **per level/semester:** 26 / 13
Form of the course: on-site learning

Number of credits: 4

Recommended semester: 2.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KMANM/2-MMN-102/00

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 424

A	B	C	D	E	FX
8,02	4,72	11,79	23,58	50,24	1,65

Lecturers: Mgr. Jela Babušíková, 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.KMANM/2-MMN-103/00	Ordinary Differential Equations

Educational activities:
Type of activities: lecture / practicals
Number of hours:
per week: 3 / 1 **per level/semester:** 39 / 13
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 40/60

Learning outcomes:

Class syllabus:
1. Local and global properties of solutions of systems of differential equations
2. Linear differential systems and linear differential equations of the n-th order.
3. Linear differential systems with constant coefficients.
4. Autonomous differential systems.
5. Boundary value problems and Sturm-Liouville eigenvalue problem.
6. Stability of solutions of differential equations.

Recommended literature:
M. Greguš, M.Švec, V.Šeda: Obyčajné diferenciálne rovnice, Alfa, SNTL, Bratislava, Praha, 1985.
M. Brown: Differential Equations and their Applications, Springer-Verlag, New York, 1975.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 419

A	B	C	D	E	FX
26,49	34,37	28,4	9,55	0,72	0,48

Lecturers: prof. RNDr. Jaroslav Jaroš, CSc., Mgr. Július Pačuta, 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-FM.KMn/2-MMN-123/00	Organizational Behavior

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

Number of credits: 5

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
20% - report on solution and presentation of the assigned case study (weight 0,2) + written midterm test (weight 0,3) + final comprehensive oral exam (weight 0,5)
At least 91% must be obtained to obtain an A grade, at least 81% to obtain a B grade, at least 73% to obtain a C grade, at least 66% to obtain a D gradeg, and at least 60% to obtain an E grade. Gaining 59 points or less indicates an Fx grade.
Scale of assessment (preliminary/final): 50 / 50

Learning outcomes:
The course provides master's students with knowledge about approaches, concepts and practical application of research results in the field of Organizational Behavior as a current view of the management of organizations. This results in the development of students' ability to solve specific problems of organizations that are associated with people management. Students will gain new knowledge, e.g. on individual behavior, motivation, group dynamics, leading work groups, minimization of negative manifestations of group behavior, building authority, conflict resolution in the workplace and negotiations. The seminars in this course are based on the solution of case studies (case-based teaching) in the field of Organizational Behavior. Students will thus develop their skills of teamwork and systematic and creative solution of various problems of organizational practice.

Class syllabus:
1. Introduction. What is OB and why it is important, the nature of organizations, trends in the new workplace, OB and Management, the nature of managerial work, managerial skills. Dilemmas and challenges associated with leading groups and teams that current managers face in the workplace.
2. Management lessons from abroad – Organizational behavior and culture. How culture affects the perception of the world around us and the behavior of people in the work environment. A culturally diverse work environment. Attributes of culture strongly influencing planning, negotiation, leadership, communication in the work environment.
3. Individuals in the organization. Components of work performance. Personality traits. Big Five model. Values, attitudes. Perceptual process and perceptual barriers. Attribution error and implications for managerial practice.

4. Motivation. Practical implications of content and process theories of motivation. Job design. Motivational potential of work. Factors influencing motivation. Basic work attitudes (job satisfaction, job involvement, and organizational commitment).
5. Groups in the organization. Group dynamics. Tuckman's model of group dynamics. Effectiveness of work groups. Types of teams. Negative manifestations of group behavior and how to minimize them. Asch's effect. Groupthink. Stanford prison experiment.
6. Organizational design, classic and organic organizational structures. Determinants of organizational structure. Principles of creating organizational structure. Span of control, departmentalization, centralization, formalization, specialization of work. Interdependencies between organizational structure and organizational culture.
7. Management and Chaos Theory. New model of organization. Learning organization.
8. Managing change in organizations, the role of the manager in the process of change management. Change agents. Lewin's model of change. Resistance to change and tactics to overcome it.
9. Power and authority. Sources of individual power. Organizational politics and employee political behavior in the organization.
10. Leadership. Definition of this process, its basic elements. Development of theoretical reflection of leadership through time. Classical theories (trait theories, behavioral theories, situational theories). Values-oriented leadership, neo-charismatic leadership, team leadership.
11. Managerial communication. Development of communication skills. Active listening. Effective feedback. Constructive criticism.
12. Decision-making and conflict resolution. Sources and types of conflicts. Task, relational and procedural conflicts. Productive conflict. Negotiation - stages of the process and its elements. Negotiation methods and tactics.

Recommended literature:

[1] Rudy, J. – Sulíková, R. – Lašáková, A. – Fratričová, J. – Mitková, Ľ.: Organizačné správanie. Bratislava: UK, 2013.
[2] Rudy, J. – Sulíková, R. – Lašáková, A. – Fratričová, J. – Mitková, Ľ.: Manažment a organizačné správanie. Münster: MV Wissenschaft, 2013.
[3] Rudy, J.: Management and Chaos Theory. Bratislava: Faber, 1997.
[4] Robbins, S. P. – Judge, T.A.: Organizational Behavior. New Jersey: Prentice Hall, 2015.
[5] Schermerhorn, J. R. – Hunt, J. G. – Osborn, R. N.: Organizational Behavior. John Wiley and Sons, 2008.
[6] Lašáková, A. – Bajzíková, Ľ. – Blahunková, I.: Values oriented leadership - conceptualization and preliminary results in Slovakia. In: Business: Theory and Practice. - roč. 20 (2019), s. 259-269.
[7] Lašáková, A. – Remišová, A.: On organisational factors that elicit managerial unethical decision-making. In: Ekonomický časopis. - roč. 65, č. 4, (2017), s. 334-354.
[8] Lašáková, A. – Remišová, A. – Kirchmayer, Z.: Are managers in Slovakia ethical leaders? Key findings on the level of ethical leadership in the Slovak business environment. In: Periodica Polytechnica Social and Management Sciences. - roč. 25, č. 2 (2017), s. 87-96.
[9] Prípadové štúdie (výber), napr. Harvard Business Publishing, https://hbsp.harvard.edu/cases/?ab=browse%7Ccases
[10] Website of the Academic library at Comenius University in Bratislava – external information sources accessible for CU at: http://uniba.sk/o-univerzite/fakulty-a-dalsie-sucasti/akademickakniznica-uk/externe-informacne-zdroje/.
[11] Journals: Organizational Behavior and Human Decision Processes, Organizational Dynamics, Organization Science, Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Journal of Applied Psychology, Business Horizons, Human Relations, Journal of Personality and Social Psychology, Harvard Business Review,

Moderní řízení
[12] Additional resources will be continuously supplemented and updated (with regard to new and available resources).

Languages necessary to complete the course:
Slovak, English

Notes:
An extensive syllabus is prepared for the course, which is electronically distributed to all students who have enrolled in this course at the beginning of the semester.

Past grade distribution
Total number of evaluated students: 44

A	B	C	D	E	FX
34,09	34,09	11,36	11,36	9,09	0,0

Lecturers: doc. PhDr. Rozália Sulíková, PhD., Mgr. Alexandra Bohinská, prof. Ing. Ján Rudy, PhD., prof. Mgr. Anna Lašáková, PhD.

Last change: 29.08.2021

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-109/00	Partial Differential Equations

Educational activities:
Type of activities: lecture / practicals
Number of hours:
per week: 3 / 1 **per level/semester:** 39 / 13
Form of the course: on-site learning

Number of credits: 5

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
Scale of assessment (preliminary/final): 40/60

Learning outcomes:

Class syllabus:
1. Linear and quasilinear partial differential equations of the first order.
2. The method of characteristics.
3. Classification of partial differential equations of the second order. Canonical forms.
4. One-dimensional wave equation. Heat equation.
5. Fourier method
6. Parabolic eqaution.
7. Laplace equation.

Recommended literature:
M. Greguš: Parciálne diferenciálne rovnice (skriptá UK), Bratislava 1983.
J. Kačur: Rovnice matematickej fyziky I, (skriptá UK), Bratislava 1984.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 422

A	B	C	D	E	FX
33,65	30,81	21,09	12,32	1,18	0,95

Lecturers: prof. RNDr. Jaroslav Jaroš, CSc., RNDr. František Jaroš, 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.KMANM/2-MMN-238/19	Performance Marketing

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

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 18

A	B	C	D	E	FX
33,33	38,89	16,67	5,56	0,0	5,56

Lecturers: Mgr. Ján Laurenčík

Last change: 06.02.2020

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KTV/2-MXX-110/00	Physical Education and Sport (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
Practicing of the students´ game skills in collective sports: basketball, volleyball, football, floorball and hockey. Mastering of the basic technique of a particular sport discipline in other sports. In paddling, basic training on still and slightly flowing water. Development of coordination skills, improvement of articular mobility and cardiovascular system.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1657

A	B	C	D	E	FX
98,37	0,6	0,06	0,0	0,0	0,97

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek, Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KTV/2-MXX-120/00	Physical Education and Sport (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
Practicing of offensive and defensive game combinations and playing with modified rules in collective sports such as basketball, volleyball, football, floorball, hockey. Command of elements of higher difficulty in locomotion skills (swimming - crawl stroke, breast stroke, butterfly stroke, trampoline jumping and aerobics – practicing of areobics compositions, bodybuilding – development of the main muscle groups, paddling on running water. Testing of the level of physical fitness and coordination skills.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1557

A	B	C	D	E	FX
98,52	0,39	0,06	0,06	0,06	0,9

Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Branislav Nedbálek, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KTV/2-MXX-210/00	Physical Education and Sport (3)

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

Number of credits: 2

Recommended semester: 3.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
To improve offensive and defensive game combinations in collective sports. Practicing of tactical and technical elements in individual sports. Compensatory exercises to correct wrong body posture. Stretching. Competition rules in sport disciplines.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1281

A	B	C	D	E	FX
98,75	0,47	0,08	0,0	0,0	0,7

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Júlia Raábová, PhD., Mgr. Branislav Nedbálek, Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KTV/2-MXX-220/00	Physical Education and Sport (4)

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

Number of credits: 2

Recommended semester: 4.

Educational level: II.

Prerequisites:

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

Learning outcomes:

Class syllabus:
Sport training for Faculty Championships in a selected sport with modified rules. Selection of sport-talented students into teams of the Faculty Sport League, University League of Bratislava Faculties, and participation in sport events of the Faculty and University.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 1110

A	B	C	D	E	FX
98,47	0,45	0,09	0,09	0,09	0,81

Lecturers: PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, Mgr. Jana Leginusová, Mgr. Tomáš Kuchár, PhD., PaedDr. Mikuláš Ortutay, Mgr. Martin Dovičák, PhD., Mgr. Branislav Nedbálek, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký

Last change: 15.03.2022

Approved by:

STATE EXAM DESCRIPTION

Academic year: 2021/2022	
University: Comenius University Bratislava	
Faculty: Faculty of Mathematics, Physics and Informatics	
Course ID: FMFI.KMANM/2-MMN-954/15	**Course title:** Quantitative Methods in Management
Number of credits: 2	
Educational level: II.	
State exam syllabus:	
Last change: 05.11.2015	
Approved by:	

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KJP/1-MXX-161/00	Russian Language (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:
To master the fundamentals of general Russian. The language level is A1.
Learning the Cyrillic (Russian) alphabet, gaining basic language competence, building up skills and confidence in dealing with unfamiliar authentic and semi-authentic texts.
The subject provides a course in Russian language for beginners.

Recommended literature:
The textbook: : Точка Ру A1 (Ольга Долматова, Екатерина Новачац), pracovné karty Падежи 1 (Л.С. Безкоровайная, В.Е. Штыленко).

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 707

A	B	C	D	E	FX
58,56	16,55	11,03	4,38	1,84	7,64

Lecturers: Viktoria Mirsalova

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/1-MXX-162/00	Russian Language (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:
To master the fundamentals of general Russian.
Learning the Cyrillic (Russian) alphabet, gaining basic language competence, building up skills and confidence in dealing with unfamiliar authentic and semi-authentic texts.
The subject continues the program of Russian language (1) and provides a course of Russian for beginners.

Recommended literature:
Textbook: Точка Ру A1 (Ольга Долматова, Екатерина Новачац), pracovné karty Падежи 1 (Л.С. Безкоровайная, В.Е. Штыленко).

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 421

A	B	C	D	E	FX
65,08	15,68	8,79	3,8	0,95	5,7

Lecturers: Viktoria Mirsalova

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/1-MXX-261/00	Russian Language (3)

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

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Basic communication in Russian, developing other Russian language skills - listening comprehension, reading and writing.

Class syllabus:
Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.
The course "Russian for Intermediate Students" is a follow-up to "Russian for Beginners". The subject of the course is general Russian in the range appropriate to the given level.

Recommended literature:
Точка Ру A2 (Ольга Долматова, Екатерина Новачац) a Short Stories in Russian (Olly Richards, Alex Rowlings)

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 200

A	B	C	D	E	FX
70,5	17,5	8,5	2,5	0,0	1,0

Lecturers: Viktoria Mirsalova

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/1-MXX-262/00	Russian Language (4)

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

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

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

Learning outcomes:
Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.

Class syllabus:
Learning the handwritten Russian (Russian Cursive Cyrillic), developing further language skills, gaining knowledge of Russian culture, history and way of life, pre-intermediate to intermediate grammar and vocabulary.
The course "Russian for Intermediate Students" is a follow-up to "Russian for Beginners". The subject of the course is general Russian in the range appropriate to the given level.

Recommended literature:
Точка Ру A2 (Ольга Долматова, Екатерина Новачац) a Short Stories in Russian (Olly Richards, Alex Rowlings)

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 144

A	B	C	D	E	FX
75,69	13,19	6,94	2,78	0,69	0,69

Lecturers: Viktoria Mirsalova

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.KMANM/2-MMN-134/17	Skills in Human Resources Management

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

Number of credits: 2

Recommended semester: 1., 3.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 21

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

Lecturers: doc. RNDr. Tibor Šipőcz, CSc.

Last change: 14.09.2018

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/1-MXX-171/20	Slovak Language for Foreign Students (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: I., II.

Prerequisites:

Course requirements:
tests
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
This course is aimed for foreign students to learn the fundamentals of the Slovak language with the focus on basic communication as well as all other language skills- listening comprehension,reading and writing.

Class syllabus:
The sylabus is targeted at the comprehension of the basics of the Slovak language for the absolute beginners (A1).

Recommended literature:
Krížom- Krážom Slovenčina 1, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 23

A	B	C	D	E	FX
47,83	0,0	0,0	0,0	0,0	52,17

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

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/1-MXX-172/20	Slovak Language for Foreign Students (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: I., II.

Prerequisites:

Course requirements:
tests
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
This course is aimed for foreign students to learn the fundamentals of the Slovak language with the focus on basic communication as well as all other language skills- listening comprehension,reading and writing.

Class syllabus:
The sylabus is targeted at the comprehension of the basics of the Slovak language for the absolute beginners (A1) and this course is a follow up course to the Slovak language course 1.

Recommended literature:
Krížom- Krážom Slovenčina 1, additional material to further support the covered topics

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 22

A	B	C	D	E	FX
81,82	0,0	4,55	0,0	0,0	13,64

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

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/1-MXX-271/20	Slovak Language for Foreign Students (3)

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

Number of credits: 2

Recommended semester: 3.

Educational level: I., II.

Prerequisites:

Course requirements:
tests
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
This course is aimed for foreign students to better comprehend all the language skills important to enable correct usage of the Slovak language – listening comprehension, reading, writing and speaking.

Class syllabus:
The sylabus is targeted at the comprehension of all the language skills of the Slovak language , and it is a follow up course to the Slovak language course 2.

Recommended literature:
Krížom-Krážom Slovenčina 2, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 8

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

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

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/1-MXX-272/20	Slovak Language for Foreign Students (4)

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

Number of credits: 2

Recommended semester: 4.

Educational level: I., II.

Prerequisites:

Course requirements:
tests
Course prerequisites:
https://fmph.uniba.sk/microsites/kjp/katedra-jazykovej-pripravy/poziadavky-na-udelenie-priebezneho-hodnotenia-aj1aj2aj3-ostatne-kurzy/
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
This course is aimed for foreign students to better comprehend all the language skills important to enable correct usage of the Slovak language – listening comprehension, reading, writing and speaking.

Class syllabus:
The sylabus is targeted at the comprehension of all the language skills of the Slovak language , and it is a follow up course to the Slovak language course 3.

Recommended literature:
Krížom-Krážom Slovenčina 2, additional material to further support the covered topics.

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 7

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

Lecturers: Mgr. Aneta Barnes

Last change: 21.06.2022

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KTV/2-MXX-115/17	Sports in Natur (1)

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

Number of credits: 2

Recommended semester: 1.

Educational level: II.

Prerequisites:

Course requirements:
Grades: A 90%, B 80%, C 70%, D 60%, E 50%
The condition for the award of 1 or 2 credits is the completion of a multi-day course in its full scope, or the completion of one-day courses in the scope of 4 days. Candidates can apply to the leaders of individual courses. From the presented offer of courses, you can choose the one that suits your interests, abilities and deadlines.

Learning outcomes:
Acquisition and development of basic motor skills and abilities in selected sports: skiing and snowboarding. Mastering the correct technique of performing individual movements, which are necessary for skiing and snowboarding.

Class syllabus:
The student can sign up for the outdoor sports courses offered by the department: skiing, snowboarding. The lessons in the courses are focused on the development of basic and special movement skills and mastering the techniques needed for the sports.

Recommended literature:

Languages necessary to complete the course:
Slovak

Notes:
KTVŠ does not rent ski equipment.

Past grade distribution
Total number of evaluated students: 83

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

Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, 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.KTV/2-MXX-116/18	Sports in Natur (2)

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

Number of credits: 2

Recommended semester: 2.

Educational level: II.

Prerequisites:

Course requirements:
Grades: A 90%, B 80%, C 70%, D 60%, E 50%.
The condition for the award of 1 or 2 credits is the completion of a multi-day course in its full scope, or the completion of one-day courses in the scope of 4 days. Candidates can apply to the leaders of individual courses. From the presented offer of courses, you can choose the one that suits your interests, abilities and deadlines.

Learning outcomes:
Creating a positive and lasting relationship with physical activity. Acquisition and mastery of basic motor skills and abilities in outdoor sports: windsurfing, beach volleyball, water tourism - river rafting, hiking and other sports according to interest. Training and improving the technique needed for the sports.

Class syllabus:
The student can sign up for the outdoor sports courses offered by the department: water tourism - river rafting, windsurfing, beach volleyball, hiking and other hobby sports. The lessons in the courses are focused on the development of basic and special movement skills and, mastering the techniques needed for the sports.

Recommended literature:

Languages necessary to complete the course:
Slovak

Notes:
KTVŠ will provide sports equipment.

Past grade distribution
Total number of evaluated students: 50

A	B	C	D	E	FX
94,0	0,0	0,0	0,0	0,0	6,0

Lecturers: Mgr. Martin Dovičák, PhD., Mgr. Tomáš Kuchár, PhD., Mgr. Jana Leginusová, PaedDr. Dana Mašlejová, Mgr. Ladislav Mókus, PaedDr. Mikuláš Ortutay, Mgr. Júlia Raábová, PhD., Mgr. Tomáš Lovecký
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-FM.KSP/2-MMN-204/00	Strategic Management

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

Number of credits: 5

Recommended semester: 3.

Educational level: II.

Prerequisites:

Course requirements:

Learning outcomes:

Class syllabus:

Recommended literature:

Languages necessary to complete the course:

Notes:

Past grade distribution
Total number of evaluated students: 368

A	B	C	D	E	FX
33,97	28,53	18,48	9,78	8,42	0,82

Lecturers: prof. Ing. Jozef Papula, PhD., doc. Mgr. Zuzana Papulová, PhD., Mgr. Andrea Gažová, PhD.

Last change: 07.09.2021

Approved by:

COURSE DESCRIPTION

Academic year: 2021/2022

University: Comenius University Bratislava

Faculty: Faculty of Mathematics, Physics and Informatics

Course ID:	**Course title:**
FMFI.KMANM/2-MMN-140/15	Unconventional Application of Mathematical Analysis

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

Number of credits: 3

Recommended semester: 2.

Educational level: II.

Prerequisites:

Antirequisites: FMFI.KMANM/2-MAT-621/09

Course requirements:
Continuous assessment: individual work, presentation on a given topic.
Scale of assessment (preliminary/final): 100/0

Learning outcomes:
The purpose of the course is to present to students some uncommon applications of modern mathematical analysis, mainly in biology, medicine and social sciences.

Class syllabus:
1. Discrete and continuous models of interactions of biological populations (competitive systems, system "predator-prey", symbiotic systems).
2. Mathematical model of the detection of diabetes.
3. Discrete dynamical systems of mathematical genetics.
4. Epidemic models and dynamics of infectious diseases.

Recommended literature:

Languages necessary to complete the course:
Slovak, English

Notes:

Past grade distribution
Total number of evaluated students: 79

A	B	C	D	E	FX
92,41	7,59	0,0	0,0	0,0	0,0

Lecturers: prof. RNDr. Jaroslav Jaroš, CSc.

Last change: 16.06.2022

Approved by: