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Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-EPT1-003 | **Course name:** (E)motion – movement atanec in emotions 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 233

abs	n	p	v
92.7	7.3	0.0	0.0

Instructor:

Last changed: 23.02.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-111 | **Course name:** Algorithms and Data Structures 1

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 333

A	B	C	D	E	FX(0)	FX(1)
16.22	6.91	12.61	10.21	19.82	3.9	30.33

Instructor: doc. Ing. Jarmila Škrinárová, PhD., PaedDr. Mgr. Vladimír Siládi, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-121 | **Course name:** Algorithms and Data Structures 2

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2.

Level: I., P

Prerequisites: KIN FPV/1d-ain-111/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 298

A	B	C	D	E	FX(0)	FX(1)
14.43	9.06	10.4	8.72	15.77	7.05	34.56

Instructor: doc. Ing. Jarmila Škrinárová, PhD., PaedDr. Mgr. Vladimír Siládi, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 12-IDR | **Course name:** An Introduction to Debate and Reasoning

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 0 / 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., II.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: doc. PhDr. Dana Benčiková, PhD.

Last changed: 31.08.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ark-199 **Course name:** Anthropological curiosities

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 60

abs	n	p	v
88.33	11.67	0.0	0.0

Instructor: prof. PhDr. Alexandra Bitušíková, CSc., doc. PhDr. Katarína Koštialová, PhD., PhDr. Kamila Koza Beňová, PhD., doc. PhDr. Ivan Murin, PhD., Mgr. Ivan Souček, PhD.

Last changed: 29.01.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-VA1-003 | **Course name:** Art studio I.

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 205

abs	n	p	v
74.63	25.37	0.0	0.0

Instructor: PaedDr. Renáta Pondelíková, PhD., Mgr. Lenka Lipárová, PhD.

Last changed: 30.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-152 **Course name:** Bachelor Project

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 107

A	B	C	D	E	FX(0)	FX(1)
54.21	14.02	18.69	4.67	4.67	2.8	0.93

Instructor: ;Mgr. Adrián Hamada

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-257 | **Course name:** Big Data Analysis

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 30

A	B	C	D	E	FX(0)	FX(1)
16.67	16.67	13.33	16.67	30.0	3.33	3.33

Instructor: doc. PaedDr. Patrik Voštinár, PhD., doc. Mgr. Adam Dudáš, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-ajs-326	**Course name:** Book Club
Type, extent and method of instruction: **Form of instruction:** Seminar **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 13 **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 1., 3., 5.	
Level: I.	
Prerequisites:	
Course completion conditions: At the end of the semester, the student completes a final presentation. The student is entitled to one resit attempt. Assessment is carried out according to the grading scale: A (100–94%), B (93–87%), C (86–80%), D (79–73%), E (72–65%).	
Learning objectives: Participants will be able to identify and compare the characteristic features of various literary genres, analyse literary texts in terms of theme, narrative techniques, and style, interpret meanings within broader cultural, historical, and social contexts, critically reflect on the works read and formulate their own arguments supported by textual evidence, engage in informed and respectful group discussions, further develop their reading literacy and ability to work with diverse types of texts, and demonstrate openness to a wide range of literary forms, perspectives, and interpretations.	
Brief outline of the course: Week 1 - Introduction Week 2, 3 – Contemporary Fiction Week 4, 5 – Mystery / Thriller Week 6, 7 – Memoir / Biography Week 8, 9 – Science Fiction / Fantasy Week 10, 11 – Classic Literature Week 12, 13 – Wild Card / Member's Choice	
Recommended literature: McMahon, Susan I., Ed.; Raphael, Taffy E., Ed.: The Book Club Connection: Literacy Learning and Classroom Talk. Language and Literacy Series.	
Language of instruction: Slovak C1	
Notes:student time load: Attendance: 13 hours Work on assigned tasks (reading): 39 hours Preparation of the final presentation: 38 hours Total: 90 hours	

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)	n
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: Mgr. Barbora Vinczeová, PhD., Mgr. Veronika Gondeková, PhD.

Last changed: 24.04.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-uSDP	**Course name:** Brief History of Law

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
The prerequisite for passing the course is attendance at a minimum of 90% of the teaching and active participation of students in class. The evaluation is in accordance with the classification scale according to the Study Regulations of Matej Bel University.
a) continuous assessment:
Continuous evaluation is not performed.
b) final assessment:
The basis for the award of the final grade is the demonstration of mastery of the knowledge of the lecture material, which is demonstrated in an active dialogue with the teacher in the teaching of the subject.

Learning objectives:
The aim of the subject is to present the basic features of the development of the state and law from ancient times to the 20th century. It is intended to clarify to the student how law was born, what stages of development it went through in terms of form and content, with an emphasis on the development of public and private law (basically) in the countries of Europe and the USA. After completing the subject, the student should be able to understand the historical context, understand the authentic meaning and content of contemporary terms, clarify the meaning and content of legal institutes, critically evaluate historical legal institutes, the philosophical and value roots of law, and on their basis should be able to create his own opinion on current law and legal systems (not only) in the European area.

Brief outline of the course:
Basic characteristics of the state establishment in the Greek poleis. Greek ancient law. Ancient Rome – constitutional development in individual periods. Brief basics of Roman law - selected institutes. Medieval state and law; feudalism and the feudal system. Sources of medieval law in Europe. Reception of Roman law. Medieval public and private law. Specifics of the Anglo-Saxon legal system. Modern age - anti-feudal revolutions, constitutionalism, modern law codifications. The origin and development of the United States of America. US law. The French Revolution, the codification of law during the reign of Napoleon, the influence on the development of modern law.

Recommended literature:
ŠOŠKOVÁ, I.: Praktikum k štúdiu dejín práva štátov Európy a USA. 2. dopl. a preprac. vydanie. Banská Bystrica : Vydavateľstvo Univerzity Mateja Bela - Belianum, 2022. 132 s.

ISBN 978-80-557-1968-9; SKALOŠ, M. – ŠOŠKOVÁ, I.: Vývoj inštitútov súkromného práva (vybrané problémy). 1. vyd. Banská Bystrica : Vydavateľstvo Univerzity Mateja Bela - Belianum, 2023. 224 s. ISBN 978-80-557-2081-4
ŠOŠKOVÁ, I. - LETKOVÁ, A.: Dejiny práva štátov Európy a USA. Banská Bystrica : Belianum - Vydavateľstvo Univerzity Mateja Bela v Banskej Bystrici, 2021. ISBN 978-80-557-1869-9.
Kol. autorů Právnické fakulty UK: Dějiny evropského kontinentálního práva. 3. vydání. Praha : Leges, 2010. 808 s. ISBN 978-80-87212-54-7. SELTENREICH, R. – KUKLÍK, J.: Dějiny angloamerického práva. 2.vydání. Praha : Leges, 2011. 872 s. ISBN 978-80-87212-87-5.

Language of instruction:
Slovak language

Notes:student time load:
90 hours
combinated study (L, C): 26 hours
self-study: 64 hours

Course assessment
The final number of assessed students: 486

abs	n	p	v
89.51	10.49	0.0	0.0

Instructor: doc. JUDr. Ivana Šošková, PhD.

Last changed: 05.02.2024

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_AP1_cupv	**Course name:** Business Academy 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
Participation in seminars, completion of assigned group tasks, and a final presentation of an idea are voluntary activities. A condition for completing the course is the completion and submission of self-reflection presented in the initial and final mapping of the development of skills related to entrepreneurship, carried out in person during the seminars. The condition for completing the self-reflection is participation in at least three professional seminars.

Learning objectives:
The student:
1. Develops creativity and innovative thinking in order to identify new business opportunities.
2. Knows methods and techniques of convergent and divergent thinking, design thinking, learning through collaborative problem-solving, project-based learning, and challenge-based learning.
3. Is able to design a Business Model Canvas for their future business or team of collaborators.
4. Is able to test the viability of the model and propose possible changes.
5. Is able to evaluate individual components of the business model, compare them with competitors, predict future value, and assess the benefits/revenues of the business.
6. Collaborates effectively with innovators and other inspiring successful entrepreneurs.
7. Is able to apply the latest ICT tools in teamwork as well as in the final processing of a team solution, such as Padlet, Jamboard, Miro, Looka, BioRender, ScreanPal, Genially, Pecha Kucha, Wordwall, and other applications.
8. Demonstrates the ability to work in a team and clearly present their position supported by strong arguments.

Brief outline of the course:
Techniques for searching for business ideas (IF matrix, Crazy 8s, and “pinstagoogling”). Finding at least three own business ideas.
Knock-out criteria for business ideas. Selection of a suitable idea with top potential, which the student will further develop.
Business Model Canvas. Visual outline of one’s own business idea.
Competitor analysis on the domestic and foreign market. Selection and analysis of the most relevant competitors, differentiation of one’s own idea from competitors, and definition of at least two strong competitive advantages.

Business calculator. Basics of pricing, costs, demand, production volume, consideration of direct, indirect, and variable costs, margin, and setting the price of one's own product/service.
Demo slide + reflection on and coordination of prototype development and market research
Visual design and wording of the demo slide as presentation material for the customer. Creation of a product/service prototype, including description, parameters, benefits, and sales arguments.
Implementation of research and incorporation of customer feedback.
Pitch deck or investor presentation. Main requirements of this type of presentation, structure, visualisation, delivery, formulation of key ideas and action steps as a CTA — Call to Action — with the aim of generating interest.
Psychology of sales. Fundamentals of sales skills, definition of the target customer group, identification of customer needs, creation of tailor-made solutions and argumentation, detection of buying signals during sales, and techniques for closing a sale.
The entrepreneur's journey. A personal story of a successful entrepreneur: successes, failures, lessons learned, sharing know-how and personal experience. Sharing specific recommendations for successful entrepreneurship.
Methods and possibilities of financing business ideas. Practical demonstration and presentation of specific options and procedures for obtaining funding for beginning entrepreneurs.
Competition and final presentations of business ideas

Recommended literature:

HANESOVÁ, D., THEODOULIDES, L. 2022. Mastering Transversal Competencies in the Higher Education Environment: Through Processes of Critical Thinking and Reflection. Banská Bystrica: UMB, Belianum. https://doi.org/10.24040/2022.9788055720159
OSTERWALDER, A., PIGNEUR, Y. 2012. Business Model Generation. Praha: Bizbooks, 2012. ISBN 9788026500254.
THEODOULIDES, L. 2020. Development of Critical Thinking through a Coaching Approach in the Higher Education Environment. Banská Bystrica: Belianum. E-book. https://doi.org/10.24040/2020.9788055717920
TIDD, J., BESSANT, J. 2010. Managing Innovation. Chichester: Wiley and Sons Ltd., 2010. ISBN 798-0-470-99810-6.

Language of instruction:
Slovak, English

Notes:student time load:
120 hours in total, including:
blended study — lectures, seminars, consultations: 26 hours
self-study: 54 hours
preparation of partial outputs: 25 hours
preparation of the final business model: 15 hours

Course assessment
The final number of assessed students: 1

abs	n	p	v
100.0	0.0	0.0	0.0

Instructor: Ing. Lenka Theodoulides, PhD., MBA, doc. Ing. Ľuboš Elexa, PhD., Ing. Petra Gundová, PhD.

Last changed: 13.05.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-KTPM1-003	**Course name:** Ceramics and creations from natural materials 1

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
Overall evaluation: To obtain grade A, a total of at least 94 points is required; for grade B at least 87 points; for grade C at least 80 points; for grade D at least 73 points; and for grade E at least 65 points. Credits will not be awarded to a student who receives fewer than 30 points in any component.
a) continuous assessment:
A portfolio of the student's artworks with reflection from a pedagogical perspective; ongoing completion of seminar activities and tasks in LMS Moodle.

Learning objectives:
There are two possible study plans for meeting the course requirements:
Basic plan – consisting of theoretical preparation (resources in LMS Moodle) and practical training (in the PF UMB ceramics studio).
The student:
1. demonstrates knowledge of safety principles when working in a workshop, 2. understands the origin of modeling clay, can describe its properties, and select suitable material, 3. understands the principle of recycling and can prepare clay for modeling, 4. can prepare the working environment, take care of tools, and maintain clay, 5. practices basic techniques of working with clay (e.g., slab building, ...), 6. recognizes selected surface treatments of ceramics, 7. presents a chosen type of ceramics from art history, 8. documents and reflects on their creative processes and arrives at their own solution to a given task.
Extended plan – implemented through service-learning participation in leading a ceramics and natural materials creative club for children (ages 6–13). In addition to the basic outcomes (1–8), the student: 9. is able to guide children in working with clay, collaborate, and reflect on the creative process from a pedagogical perspective,10. evaluates the suitability and feasibility of an art activity for a selected child's age, including preparation demands on the teacher and the creative potential of the activity, 11. develops a portfolio of art activities applicable in extracurricular education for children.

Brief outline of the course:
1. Safety principles at work 2. Creating with materials from the Earth 3. Techniques of working with clay 4. Ceramics in art history

Recommended literature:

Language of instruction:
english

Notes:student time load:
90 hours total, including: Lectures: 0 hours, Seminars: 26 hours, Self-study: 64 hours

Course assessment
The final number of assessed students: 318

abs	n	p	v
82.7	17.3	0.0	0.0

Instructor: Mgr. Lenka Lipárová, PhD.

Last changed: 30.04.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-253 | **Course name:** Cloud and High Performance Technologies and services

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 5.

Level: I., P

Prerequisites: KIN FPV/1d-ain-142/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 93

A	B	C	D	E	FX(0)	FX(1)
29.03	20.43	21.51	9.68	15.05	1.08	3.23

Instructor: Mgr. Michal Vagač, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-512 | **Course name:** Computer Archaeology

Type, extent and method of instruction:
Form of instruction: Laboratory practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 2

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)
0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: Mgr. Rudolf Kubík

Last changed: 29.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_PG_cuvp	**Course name:** Computer Graphics

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
Final assessment is based on tasks, test, and final project.
a) continuous assessment:
tasks 0-40, test: 0-20
b) final assessment:
project: 0-40

Learning objectives:
After successful completion of the course, the student can:
1. apply design principles to evaluate, modify or create business graphics like logo, poster, brochure, newsletter, social media graphics or other
2. compare various graphics file formats according to their practical usage in business
3. use various graphics application for creation & modification of both vector & bitmap graphics
4. create graphics that can be used in business practice

Brief outline of the course:
Basic design principles. Computer graphics applications. Graphics fileformats. Vector graphics editors: Inkscape, ... Object creation and manipulation, text editing, color models, layers and styles. Import and export between various graphic fileformats. Bitmap manipulation applications. Computer usage in creation of classic and electronic publications, on-line publishing.

Recommended literature:
1. WILLIAMS, R. 2008. The Non-Designer's Design Book. Berkeley : Peachpit Press, 3rd edition, 2008. ISBN 978-0321534040.
2. Internet graphics standards World Wide Web: www.w3c.org.
3. Inkscape on-line tutorials and documentation: https://inkscape.org/en/learn/

Language of instruction:
slovak

Notes:student time load:
90 hours
combined study: S: 26
self-study: 64

Course assessment
The final number of assessed students: 3

A	B	C	D	E	FX(0)	FX(1)	n
66.67	0.0	0.0	0.0	33.33	0.0	0.0	0.0

Instructor: Ing. Peter Laco, PhD.

Last changed: 22.04.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-235 **Course name:** Computer Graphics

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 5

Recommended semester/trimester: 3.

Level: I., P

Prerequisites: KIN FPV/1d-ain-122/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 139

A	B	C	D	E	FX(0)	FX(1)
7.91	15.11	15.11	17.99	28.06	2.88	12.95

Instructor: doc. Mgr. Adam Dudáš, PhD., Mgr. Michal Vagač, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-114 | **Course name:** Computer Networks

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 326

A	B	C	D	E	FX(0)	FX(1)
27.3	20.25	18.71	11.66	12.58	4.29	5.21

Instructor: doc. PaedDr. Patrik Voštinár, PhD., doc. Ing. Ľudovít Trajteľ, PhD.

Last changed: 07.09.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-112 | **Course name:** Computer Systems 1

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 321

A	B	C	D	E	FX(0)	FX(1)
17.13	14.95	13.71	13.71	22.74	6.23	11.53

Instructor: doc. PaedDr. Patrik Voštinár, PhD., RNDr. Miroslav Melicherčík, PhD., univ. doc.

Last changed: 07.09.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-242 | **Course name:** Computer Systems 2

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 39
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-112/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 35

A	B	C	D	E	FX(0)	FX(1)
5.71	20.0	11.43	17.14	25.71	0.0	20.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD., Mgr. Michal Vagač, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 12-SKS	**Course name:** Contemporary Conflicts in the World: Economic, Political, Social and Legal Dimensions

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 0
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., II.

Prerequisites:

Course completion conditions:
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Learning objectives:
Upon successful completion of the course, the student will be able to:
explain the main causes, characteristics and typology of contemporary conflicts;
identify the political, economic, social, security and legal dimensions of conflicts;
analyse selected contemporary conflicts from an interdisciplinary perspective;
assess the impact of conflicts on international security, the economy, migration, social stability and human rights;
describe the role of states, international organisations and non-state actors in the emergence, development and resolution of conflicts;
distinguish between facts, expert interpretations, propaganda and disinformation;
use relevant academic sources and critically evaluate information about conflicts;
formulate and substantiate their own position on selected issues related to contemporary conflicts;
propose basic approaches to conflict prevention, mitigation and peaceful resolution.

Brief outline of the course:
Introduction to the study of contemporary conflicts – key concepts, causes and typology of conflicts.
The evolution of armed conflicts and the changing nature of warfare in the 21st century.
State and non-state actors in contemporary conflicts.
Political and geopolitical dimensions of conflicts.
Economic causes and consequences of conflicts – sanctions, trade and the financing of warfare.
Energy, resource and food security in conflict situations.
Social consequences of conflicts – migration, poverty, radicalisation and social polarisation.
International legal aspects of conflicts and international humanitarian law.
Human rights protection and international criminal responsibility.
Hybrid threats, information operations, propaganda and disinformation.
Analysis of selected contemporary conflicts in Europe and its neighbourhood.
Analysis of selected conflicts in the Middle East, Africa and Asia.
Conflict prevention, management and peaceful resolution – final discussion and synthesis of acquired knowledge.

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: doc. PhDr. Rastislav Kazanský, PhD., EMBA

Last changed: 07.09.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_KvOF_cuvp	**Course name:** Cryptocurrencies in Personal Finances

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
a) continuous assessment – active participation 50 points;
b) final assessment – presentation of current topics 50 points.

Learning objectives:
The student will:
1. be able to describe what cryptocurrencies and blockchain technology are, i.e. cryptographic functions (hash), the process of mining and issuing new currency, various consensus mechanisms including Proof-of-Work and Proof-of Stake used in the Bitcoin and Ethereum blockchains.
2. understand how cryptocurrencies work, distinguish the basic characteristics and key metrics of Bitcoin and altcoins such as Ethereum, Tether, XRP, BNB Cardano, Dogecoin, etc.
3. identifiy the advantages of cryptocurrencies, distinguishes between different types and features of centralized, decentralized and hybrid blockchains and appropriately assesses which one is suitable for which purposes.
4. evaluate how cryptocurrencies can be stored, searched and analyzed for real transactions in open blockchain networks.
5. examine how cryptocurrencies can be secured, identifies selected risks, including legal, regulatory and tax aspects
6. identify selected uses of cryptocurrencies in personal finances, such as means of payment, trading, investing or hedging.
7. understand more advanced uses of blockchain, such as smart contracts, digital assets, tokenization, CBDC, DeFi and others.

Brief outline of the course:
The course provides an introductory understanding of cryptocurrencies such as bitcoin or ethereum and blockchain technology in the context of personal finance. The course will:
- examine the theory and principles of functioning of digital currencies;
- provide practical examples of basic transactions and operations of blockchain or distributed ledger-based systems;
- examine the current and future interaction of digital currencies with banking, financial, legal and regulatory systems;

- will help students understand the disruptive potential of blockchain and how this ecosystem can be seen as an innovation;
- discuss the latest developments (such as tokenization, DeFi and CBDC).
The course will consist of the following topics:
1. Theoretical introduction to cryptocurrencies and their history. Decentralized consensus proof-of-work and proof-of-stake, cryptocurrency overview.
2. A practical introduction to cryptocurrencies. Hands-on exercises in using and creating transactions with digital currencies. Working with a digital wallet, crypto exchanges, crypto ATMs.
3. Examples of the use of cryptocurrencies. Domestic and foreign payments. Trading and investing. Hedging and prediction markets. Tokenization. DeFi. CBDC.
4. Taxes, regulations and risks of cryptocurrencies.

Recommended literature:

1. AMMOUS, S. 2018. The Bitcoin standard. Hoboken, New Jersey : John Wiley & Sons, 286 p. ISBN 978-1-119-47386-2.
2. AZHAR, A. 2021. Exponential. London : Cornerstone, 384 p. ISBN 978-1847942913.HOSP, J. 2018. Kryptomeny. Bratislava : Tatran, 172 s. ISBN 978-80-222-0945-8.
3. HARARI, Y., N. 2018. Money. London : Vintage Books, 133 p. ISBN 978-1-78487-402-5.
4. HAYEK, F. A. 1990. Denationalisation of Money The Argument Refined An Analysis of the Theory and Practice of Concurrent Currencies (3rd ed.). London, UK: The Institute of Economic Affairs.
5. CHOVANCULIAK, R. 2019. Pokrok bez povolenia. Bratislava : INESS, 288 s. ISBN 978-8-089-82007-8.
6. KRAVCHENKO, P., SKRIABIN, B., DUBININA, O. 2019. Blockchain And Decentralized Systems. Київ, Ukraine: Distibuted Lab.
7. NAKAMOTO, S. 2008. Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from https://bitcoin.org/bitcoin.pdf
8. NARAYANAN, A., BONNEAU, J., FELTEN, E., MILLER, A., GOLDFELDER, S. 2016. Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction. Princeton, NJ: Princeton University Press.
9. SHRIER, D., L. 2020. Basic blockchain. London : Robinson, 182 p. ISBN 978-1-4721-4483-6.
10. TAPSCOTT, D., TAPSCOTT, A. 2018. Blockchain revolution. New York : Portfolio/Penguin, 358 p. ISBN 978-0-241-23786-1.

Language of instruction:
Slovak, English

Notes:student time load:
90 hours
Combined study: 26 h.
Self-study: 50 h.
Presentation preparation: 14 h.

Course assessment
The final number of assessed students: 133

abs	n	p	v
66.92	32.33	0.0	0.75

Instructor: Ing. Ivan Sedliačik, PhD., doc. Ing. Ján Huňady, PhD.

Last changed: 23.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-227 | **Course name:** Cultural Regions of the World

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 132

A	B	C	D	E	FX(0)	FX(1)	n
71.97	9.85	3.79	2.27	0.0	12.12	0.0	0.0

Instructor: RNDr. Tibor Madleňák, PhD.

Last changed: 03.02.2017

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-geu-304 | **Course name:** Current topics in the geography of production

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 40

A	B	C	D	E	FX(0)	FX(1)	n
37.5	30.0	20.0	7.5	2.5	0.0	2.5	0.0

Instructor: Mgr. Richard Pouš, PhD.

Last changed: 28.06.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-133 | **Course name:** Database Systems 1

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 174

A	B	C	D	E	FX(0)	FX(1)
12.07	13.22	15.52	23.56	18.39	1.15	16.09

Instructor: doc. Mgr. Adam Dudáš, PhD., Mgr. Bianka Modrovičová

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-244 | **Course name:** Database Systems 2

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-133/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 127

A	B	C	D	E	FX(0)	FX(1)
18.9	14.96	25.98	12.6	14.96	3.94	8.66

Instructor: doc. Mgr. Adam Dudáš, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-129 | **Course name:** Design and Programming of Simple Robots

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 33

A	B	C	D	E	FX(0)	FX(1)
51.52	0.0	9.09	0.0	6.06	18.18	15.15

Instructor: Mgr. Michal Vagač, PhD.

Last changed: 30.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-509 | **Course name:** Digital Innovation and Startups

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 39
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)
0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD., Mgr. Nataliia Časnochová Zozuk, PhD.

Last changed: 28.08.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1-OEV1	**Course name:** Diplomacy in Practice - Professional Excursion at the Embassy I.

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 0 / 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 400

abs	n	p	v
88.75	11.25	0.0	0.0

Instructor: doc. PhDr. Erik Pajtinka, PhD.

Last changed: 07.06.2024

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1-OEMO1	**Course name:** Diplomacy in Practice - Professional Excursion in an International Organization I.

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 0 / 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 298

abs	n	p	v
98.99	1.01	0.0	0.0

Instructor: doc. PhDr. Erik Pajtinka, PhD.

Last changed: 07.06.2024

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: e1-BACEP	**Course name:** EMERGE BRIDGE - Active Community Engagement in Practice
Type, extent and method of instruction: **Form of instruction:** Seminar **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26s **Method of study:** combined	
Number of credits: 5	
Recommended semester/trimester: 1., 3., 5.	
Level: I., P	
Prerequisites:	
Course completion conditions:	
Learning objectives: Knowledge The student: • has knowledge of different forms and pathways of civic engagement and active citizenship • understands socio-economic, cultural, and ecological characteristics of communities • has knowledge of ethical principles in community engagement, including “Do No Harm” • understands key concepts related to social justice, inequality, and systemic change • has knowledge of project planning, community needs assessment, and asset-based approaches • understands principles of intercultural communication and teamwork • is aware of digital tools, inequalities, and creative engagement methods • understands principles of reciprocity, partnerships, and volunteering ethics • has knowledge of reflection, resilience, and well-being Skills The student: • can apply theoretical knowledge in real community contexts • can analyse community needs and resources • can collaborate effectively in international teams • can communicate using empathy and intercultural sensitivity • can apply ethical principles in practice • can critically reflect on their own learning and assumptions • can design and implement small-scale engagement activities • can use digital tools for collaboration and communication • can facilitate group interaction and participatory processes Competence (General Competence) The student: • demonstrates responsibility and autonomy in community engagement • shows civic responsibility and commitment to social justice • demonstrates intercultural awareness and adaptability • critically evaluates their own practice	

• collaborates effectively with community stakeholders
• demonstrates resilience in complex situations
• integrates theory with practice
• contributes to international teamwork and shared outcomes

Brief outline of the course:

Obsah
1. Preparation Phase – Online Course (May –
Students complete a structured online course consisting of the following modules:
1. Pathways of Civic Engagement and Citizenship
2. Rural Realities and Local Contexts
3. Ethics, Cultural Humility, and Social Responsibility
4. Social Justice and Systemic Change
5. Communication, Teamwork, and Interpersonal Skills
6. Project Design, Asset Mapping, and Needs Assessment
7. Digital Empowerment and Creative Methods
8. Community Partnership and Reciprocity
9. Reflection, Resilience, and Well-being
Additional mandatory activities:
• One joint online preparatory session
• One online meeting with the community partner
2. Field Placement Phase
• Participation in a community-based project in an international team
• Collaboration with local organisations and stakeholders
• Engagement with real community needs
• Application of knowledge and skills from the online course
• Ongoing reflection and facilitated group discussions
3. Reflection and Evaluation session
• Structured reflection sessions
• Peer learning and experience sharing
• Evaluation of project impact
• Integration of practice with academic learning

Recommended literature:

Boyte, H. C. (2008). Everyday politics: Reconnecting citizens and public life. University of Pennsylvania Press.
Council of Europe. (2018). Reference framework of competences for democratic culture. Council of Europe Publishing.
Ekman, J., & Amnå, E. (2012). Political participation and civic engagement: Towards a new typology. Human Affairs, 22(3), 283–300. https://doi.org/10.2478/s13374-012-0024-1
Freire, P. (1970). Pedagogy of the oppressed. Continuum.
Jacoby, B. (2015). Service-learning essentials: Questions, answers, and lessons learned. Jossey-Bass.
Mitchell, T. D. (2008). Traditional vs. critical service-learning: Engaging the literature to differentiate two models. Michigan Journal of Community Service Learning, 14(2), 50–65.
Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. Simon & Schuster.
Rawls, J. (1971). A theory of justice. Harvard University Press.
United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations.

Weick, K. E. (1995). Sensemaking in organizations. Sage Publications.

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: doc. PhDr. Alžbeta Brozmanová Gregorová, PhD., Mgr. Anna Slatinská, PhD., univ. doc.

Last changed: 08.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: e1-ESZ	**Course name:** EMERGE Európa a európsky spôsob života

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:
a) Continuous assessment (50%):
preparation (individually or in small teams) of presentations on a selected topic, submission of a draft version, and incorporation of feedback from the instructors
b) Final assessment (50%):
active participation in the final colloquium – presentation of the final versions of the presentations and active participation in the discussion on the presented topics

a) continuous assessment:
a) Continuous assessment (50%):
preparation (individually or in small teams) of presentations on a selected topic, submission of a draft version, and incorporation of instructors' feedback.

b) final assessment:
b) Final assessment (50%):
active participation in the final colloquium – presentation of the final versions of the presentations and active participation in the discussion on the presented topics.

Learning objectives:
After completing the course, the student is able to:
- analyse key and current topics of European integration with an emphasis on promoting the European way of life and European values,
- understand the causes and consequences of differing attitudes toward European integration and formulate their own position on them,
- understand the multidimensional perception of the European Union through the eyes of its citizens, with a focus on its values,
- identify the most important factors influencing EU citizens and determine the factors shaping European identity,
- recognise different models of Europe's regional division; define Europe's core and peripheral regions; understand the challenges faced by Europe's peripheral regions,
- understand the methodology of research on European values, interpret its results, and know how these results can be applied in practice,

- understand the language policy of the European Union and its application in language education; distinguish between plurilingualism and multilingualism; understand the theoretical framework of intercomprehension.

Brief outline of the course:

- Geography of Europe's regions – defining the European cultural space, models of regional division in Europe, identification of core and peripheral regions, selected issues of Europe's peripheral regions.
- Goals and values of the European Union: legal basis, significance and relevance in today's world – general objectives of the EU (promotion of peace, values, and well#being), objectives in the area of freedom, security and justice, economic objectives, and the main values of the EU (respect for human dignity, freedom, democracy, equality, the rule of law, and human rights); the Charter of Fundamental Rights of the European Union.
- Values of solidarity and cooperation – the EU's timeless contribution to the present; citizen engagement in European debates during European elections; values and principles of the European Union.
- Research on European values – methodology and results of research on European values.
- Hierarchy of priorities and typology of EU policies – hierarchy of priorities in Europe through the analysis of EU budget revenues and expenditures (development trends and current state).
- The euro as an embodiment of European identity – selected aspects of monetary and financial integration in Europe; the international role of the euro in the global economy.
- Europe fit for the digital age – empowering people through the promotion of EU values: rules for the use of AI, ensuring a safe and responsible online environment, ensuring fair and open digital markets, European digital identity, European data strategy.
- The European Union as an area of freedom, security and justice – judicial cooperation in civil and criminal matters; mutual trust in the judicial systems of Member States as a fundamental principle of the European area of freedom, security and justice, and its challenges.
- European languages – linguistic relationships and basic characteristics of language groups; official, regional, minority, and heritage languages in Europe; multilingualism and multiculturalism in European regions.
- The value of linguistic diversity in the European Union – EU language policy and its application in language education in selected Member States; plurilingualism and multilingualism in the EU; theoretical framework of intercomprehension, its basic principles and methods.

Recommended literature:

1. BALDWIN, R., WYPLOSZ, CH. The Economics of European Integration. 2015. London: McGraw-Hill companies, ISBN 978007716965
2. FUNTA, R. kol. Európske právo. 3., doplnené a rozšírené vydanie. Bratislava : Wolters Kluwer SR s.r.o., 2024.
3. GAJDOŠ, A., MAZÚREK, J., TOLMÁČI, L., HOUDKOVÁ, Z., BAAR, V., MADLEŇÁK, T., LACIKA, J. Regionálna geografia Európy. Bratislava: VEDA. 2013. ISBN 978-80-224-1304-6
4. JÁNOŠÍKOVÁ, M.: Repetitórium práva Európskej únie, 3. vydanie, Iuris Libri, Bratislava, 2024
5. LIPKOVÁ, Ľ. A kol. Európska únia. 2011. Bratislava: Sprint dva. ISBN 9788089393336
6. RADIČOVÁ, I. Byť alebo nebyť : Európska únia. Centrum pre otvorené politiku. 2016. ISBN 9788097253608
7. SOMERS F.J.L. et al.. European Business Environmnet. New York: Routledge, 2015. ISBN 978-9-0017-6891-1

8. SUDER, G., LINDEQUE, J. Doing Business in Europe. London: SAGE. 2018. ISBN 978-1-5264-2073-2
9. www.atlasofeuropeanvalues.eu
10. www.aktualneproblemyeuropy.sk
11. Webové sídla európskych inštitúcií a agentúr

Language of instruction:
Slovak, English

Notes:student time load:

Course assessment
The final number of assessed students: 7

abs	n	p	v
100.0	0.0	0.0	0.0

Instructor: RNDr. Tibor Madleňák, PhD., doc. PaedDr. Mária Huraj Rošteková, PhD., prof. PhDr. Katarína Chovancová, PhD., JUDr. Elena Júdová, PhD., Mgr. Janka Kubeková, PhD., Ing. Žaneta Lacová, PhD.

Last changed: 08.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: e1-FL1	**Course name:** EMERGE Foreign Language 1
Type, extent and method of instruction: **Form of instruction:** Practical **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26s **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 1., 3., 5.	
Level: I., P	
Prerequisites:	
Course completion conditions: active participation in instruction, final written assessment **b) final assessment:** test	
Learning objectives: After successfully completing the course, the student will possess the following skills in the selected foreign language: - can introduce themselves and make acquaintances; - can express basic needs and communicate in some everyday situations; - is familiar with the basic elements of the culture of the community that actively uses the target language; - is familiar with the key typological and genealogical characteristics of the target language.	
Brief outline of the course: In the course, the student will become acquainted with any new foreign language from the current offer, with their initial level of competence in that language at the beginning of the course being A0–A1.1 according to the Common European Framework of Reference for Languages (CEFR). The aim is to broaden general linguistic awareness, knowledge of European languages, and to deepen individual receptive and productive communicative competence in a new language. The range of foreign languages offered includes selected languages of EU Member States, as well as some minority and regional languages used in Europe and languages of partner countries outside the EU. Instruction in the course partially employs plurilingual approaches to foreign language teaching. The course is intended for applicants interested in the study opportunities offered by the EMERGE European University Alliance.	
Recommended literature:	
Language of instruction: French, German, Spanish, Italian, Polish, Ukrainian, Russian, Irish, Turkish, Slovak for Foreigners	
Notes:student time load: 26 hours – language exercises, 20 hours – self-study, 2 hours – consultations, 2 hours – final assessment	

Course assessment
The final number of assessed students: 12

abs	n	p	v
75.0	25.0	0.0	0.0

Instructor: prof. PhDr. Katarína Chovancová, PhD., doc. PhDr. Jana Pecníková, PhD., Mgr. Eva Reichwalderová, PhD., univ. doc., Mgr. Gabriel Rožai, PhD., univ. doc., Mgr. Igor Cintula, PhD., Mgr. Jana Štefaňáková, PhD., univ. doc., Svitlana Shekhavtsova, PhD., M.A. James Ó Conaill, doc. Mgr. Gabriela Olchowa, PhD., Dr. İsmail Aydo#du

Last changed: 09.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: e1-FL2	**Course name:** EMERGE Foreign Language 2
Type, extent and method of instruction: **Form of instruction:** Practical **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26s **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 2., 4., 6.	
Level: I., P	
Prerequisites:	
Course completion conditions: active participation in instruction, final written assessment **b) final assessment:** test	
Learning objectives: After successfully completing the course, the student will possess the following skills in the selected foreign language: - can express basic needs and communicate in common everyday situations; - is familiar with the basic elements of the culture of the community that actively uses the target language; - is familiar with the key typological and genealogical characteristics of the target language. The selected foreign language is mastered at the A1–A2 level.	
Brief outline of the course: In the course, the student continues studying a foreign language from the current offer, with their initial level of competence in that language at the beginning of the course being A1.1–A1 according to the Common European Framework of Reference for Languages (CEFR). The aim is to broaden general linguistic awareness, knowledge of European languages, and to further develop individual receptive and productive communicative competence in the new language. The range of foreign languages offered includes selected languages of EU Member States, as well as some minority and regional languages used in Europe and languages of partner countries outside the EU. Instruction in the course partially employs plurilingual approaches to foreign language teaching. The course is intended for applicants interested in the study opportunities offered by the EMERGE European University Alliance.	
Recommended literature:	
Language of instruction: French, German, Spanish, Italian, Polish, Ukrainian, Russian, Irish, Turkish, Slovak for Foreigner	
Notes:student time load: 26 hours – language exercises, 20 hours – self-study, 2 hours – consultations, 2 hours – final assessment	

Course assessment

The final number of assessed students: 11

abs	n	p	v
90.91	9.09	0.0	0.0

Instructor: prof. PhDr. Katarína Chovancová, PhD., doc. PhDr. Jana Pecníková, PhD., Mgr. Eva Reichwalderová, PhD., univ. doc., Mgr. Gabriel Rožai, PhD., univ. doc., Mgr. Jana Štefaňáková, PhD., univ. doc., Svitlana Shekhavtsova, PhD., M.A. James Ó Conaill, Dr. İsmail Aydo#du, Mgr. Igor Cintula, PhD.

Last changed: 09.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: e1-FL3 | **Course name:** EMERGE Foreign Language 3

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:
French, German, Spanish, Italian, Russian, Irish, Turkish, Slovak for Foreigner

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: prof. PhDr. Katarína Chovancová, PhD., doc. PhDr. Jana Pecníková, PhD., Mgr. Eva Reichwalderová, PhD., univ. doc., Mgr. Gabriel Rožai, PhD., univ. doc., Mgr. Bc. Vera Liudogovskaia, Palina Lissitsyna, M.A. James Ó Conaill, Dr. İsmail Aydo#du

Last changed: 09.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: e1-FL4	**Course name:** EMERGE Foreign Language 4

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 338
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:
French, German, Spanish, Italian, Russian, Irish, Turkish, Slovak for Foreigner

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: prof. PhDr. Katarína Chovancová, PhD., doc. PhDr. Jana Pecníková, PhD., Mgr. Eva Reichwalderová, PhD., univ. doc., Mgr. Gabriel Rožai, PhD., univ. doc., Mgr. Bc. Vera Liudogovskaia, Palina Lissitsyna, M.A. James Ó Conaill, Dr. İsmail Aydo#du

Last changed: 09.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: e1-IINT	**Course name:** EMERGE Interkultúrne interakcie
Type, extent and method of instruction: **Form of instruction:** Seminar **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26s **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 2., 4., 6.	
Level: I., P	
Prerequisites:	
Course completion conditions: The course is taught and assessed in two areas: 1. Theoretical background of intercultural studies and their application in Service Learning (community-oriented assistance/service): continuous assessment – test (50%). 2. Practical application of theoretical knowledge through the implementation of a community-oriented Service Learning project: team proposal, consultation, and implementation of a selected Service Learning project. Examples of project areas include: • Volunteer projects in multicultural communities (support for migrants, language education, cultural exchange programs) • Experiential workshops on intercultural communication and sensitivity • Joint creative workshops (artistic, culinary, musical) supporting cultural exchange • Discussion forums and storytelling evenings with members of various cultural communities • Shadowing programs in organizations supporting intercultural dialogue • Field research and community mapping aimed at understanding the needs of diverse cultural groups Final assessment (50%): active participation in the final colloquium – presentation of final project outputs and active participation in discussion (final reflection). **a) continuous assessment:** test (50%) **b) final assessment:** Final assessment (50%): active participation in the final colloquium – presentation of final project outputs and active participation in discussion (final reflection).	
Learning objectives: After completing the course, students will acquire the following: • Knowledge: • Ability to define the concept of culture and understand differentiation of cultures based on dominant cultural theories and models (Hofstede, Trompenaars, Lewis, etc.) • Knowledge of principles and theoretical background of Service Learning • Apply theoretical knowledge to define their own cultural identity • Interpret and explain cultural values influencing interaction within and with communities	

• Understand cultural differences in communities, their causes, and prevention of negative impacts
• Anticipate cultural conflict situations and propose preventive solutions
• Design and justify solutions to culturally problematic situations
• Differentiate advantages and disadvantages of cultural diversity and propose anti-discrimination measures
• Work collaboratively in teams
• Conduct SWOT analysis, manage work processes, and solve problems
• Think critically and mediate interpersonal situations and conflicts
• Implement a project from initial idea to evaluation report
• Develop realistic self-assessment skills

Brief outline of the course:
• Definition and basics of intercultural communication
• Cultural typologies, values, identities, and communication styles
• Comparison of other cultures with one's own national cultural identity
• Multicultural society
• Management of cultural diversity in communities
• Resolving intercultural differences and conflicts
• Prevention of discrimination in communities
• Use of Service Learning in intercultural interventions
• Project planning, management, and monitoring
• Planning and implementation of a team Service Learning project
• Presentation and evaluation of project results

Recommended literature:
Odporúčaná literatúra:
1. LEWIS, R.L. When cultures collide: Leading across cultures. 2006. Boston - London: Nicholas Brealey International 2006. 3rd ed. ISBN-13: 978-1-904838-02-9
2. TROMPENAARS, F. – HAMPDEN-TURNER, Ch. 1998. Riding the Waves of Culture. Understanding Cultural Diversity in Business. London : Nicolas Brealy Publ.,1998. ISBN 1-85788-176-1.
3. HOFSTEDE, G., MINKOV, M. 2010. Cultures and Organisations. Software of the Mind. New York, McGraw Hill 2010. ISBN 978-07-166418-9.
4. BROZMANOVÁ GREGOROVÁ, A. et al. 2014. Service learning. Inovatívna stratégia učenia (sa). Banská Bystrica: Belianom, 2014. ISBN 978-80-557-0829-4
5. BENČIKOVÁ, D., MINÁROVÁ, M., POLČICOVÁ, M. 2009. Slovensko-anglicko-nemecký výkladový slovník interkultúrnej komunikácie. Banská Bystrica: Univerzita Mateja Bela, Ekonomická fakulta, 2009. 86 s. ISBN 978-80-8083-918-5
6. OLEJÁROVÁ M. a kol. 2007. Charakteristika vybraných krajín z pohľadu interkultúrnej komunikácie. Banská Bystrica, UMB, 2007.
7. MEYER, Erin. 2015. The Culture Map. Decoding how people think, lead, and get things done across cultures. New York: Public Affairs. ISBN 978-1-61039-276-1.
8. https://www.hofstede-insights.com/country-comparison/
9. https://www.thtconsulting.com/models/7-dimensions-of-culture/
10. https://www.crossculture.com/the-lewis-model-dimensions-of-behaviour/
11. Materiály a texty, distribuované na hodinách

Language of instruction:
Slovak, English

Notes:student time load:

90 h

Course assessment
The final number of assessed students: 9

abs	n	p	v
55.56	44.44	0.0	0.0

Instructor: doc. PaedDr. Jana Javorčíková, PhD., univ. prof., doc. PhDr. Jana Pecníková, PhD., Mgr. Petra Strnádová, PhD.

Last changed: 29.01.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-510 | **Course name:** Electronics for Computer Scientists

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)
0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor:

Last changed: 29.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-uELP	**Course name:** Environmental law and policy

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
The prerequisite for passing the course is attendance at a minimum of 90% of the teaching and active participation of students in class. The evaluation is in accordance with the classification scale according to the Study Regulations of Matej Bel University.
a) continuous assessment:
Continuous evaluation is not performed.
b) final assessment:
The basis for the award of the final grade is the demonstration of mastery of the knowledge of the lecture material, which is demonstrated in an active dialogue with the teacher in the teaching of the subject.

Learning objectives:
The graduate of the course understands the theoretical and value-based foundations of environmental protection and development, including anthropocentric and ecocentric approaches and their relationship to human rights protection. The student is familiar with the system of state and local environmental policy and understands the basic principles of legal regulation and decision-making in environmental matters. The graduate is able to analyse legal issues in the field of nature, landscape, water and forest protection, as well as spatial planning and construction law as instruments of environmental protection and development. The student understands the significance of green infrastructure as a tool for sustainable and economic territorial development and is familiar with SEA and EIA processes. The graduate is capable of identifying conflicts between public interest and individual rights and of formulating professional legal opinions supporting the principle of sustainable development.

Brief outline of the course:
1. Introduction to Environmental Protection and Development: Anthropocentric and Ecocentric Approaches
2. Environment and Human Rights
3. State and Local Government Environmental Policy
4. Legal Regulation and Decision-Making in Environmental Matters
5. Sustainable Development
6. Nature and Landscape Protection
7. Water and Forest Protection

8. Spatial Planning and Construction Law as Instruments for Environmental Protection and Development
9. Green Infrastructure – Introduction to the Concept
10. Green Infrastructure as an Economic Instrument for Territorial Development
11. SEA and EIA Processes – Introduction
12. Neighbour Relations

Recommended literature:

1. AUSTIN, Gary. Green infrastructure for landscape planning: integrating human and natural systems. London: Routledge, Taylor & Francis Group, 2014. ISBN 978-0-415-84353-9.
2. MARK A. BENEDICT; EDWARD T. MCMAHON a MARK A. THE CONSERVATION FUND. Green Infrastructure: Linking Landscapes and Communities. Island Press, 2012. ISBN 9781597267649.
3. PÍRY, Martin. Zelená infraštruktúra – Samosprávne metódy podpory a rozvoja. Banská Bystrica: Belianum, 2023. ISBN 9788055720517.

Language of instruction:
English language

Notes:student time load:
90 hours
combinated study (L, C): 26 hours
self-study: 64 hours

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: JUDr. Martin Píry, PhD.

Last changed: 13.03.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: U-1-EUŠRMČ	**Course name:** European Union - structure, decision-making mechanisms, membership

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
Final evaluation:
Discussion on selected topics of current evolution of European integration - 100%

b) final assessment:
Final colloquium on the topic "Position of the Slovak Republic in the European Union - current status and future perspectives from the perspective of political, economic and socio-economic development" - 100%

Learning objectives:
The student learn the basic terminology related to the field of European integration and is able to use it effectively in professional discussions and when processing professional texts and studies focusing on selected aspects of the subject matter. The student can create a basic timeline/line of the development of the European integration process, knows its basic developmental milestones, as well as specific factors and circumstances that influenced the dynamics of the integration process's progress to higher and more complex developmental phases. The student knows the specifics and mechanisms through which the functionality and fulfillment of the basic competences of the European Union are maintained from the perspective of the activities and decision-making mechanisms applied within the key institutions of the European Union. The student correctly understands and can evaluate the extent and level of inter-institutional relations and can identify possible problem areas of the functionality of selected models of these relations. The student will become familiar with the specifics, influences and factors (political, economic, social, cultural) of both the internal and external space of the European Union, which currently most significantly determine its current and future development.

Brief outline of the course:
1. Introduction to the study of European integration.
2. European integration - the main developmental milestones and their significance and impact on the dynamics of the integration process.
3. Institutions of the European Union I. - position in the institutional structure, competencies, mutual relations, decision-making mechanism and their implementation.
4. Institutions of the European Union II. - position in the institutional structure, competencies, mutual relations, decision-making mechanism and their implementation.

5. The transformation process of the countries of Central and Eastern Europe and its specifics.
6. The transformation process of the Slovak Republic - circumstances, situation, key milestones, specifics.
7. The process of integration of the Slovak Republic into the European Union - stages of the integration process.
8. Benefits resulting from the membership of the Slovak Republic in the EU.
9. The European Union and the global financial crisis - the impact of the global financial crisis on the European integration area and the search for ways to solve it.
10. The Europe 2020 strategy and its implementation in the conditions of the Slovak Republic.
11. The impact of the Covid-19 pandemic on the European integration area.
12. The EU energy crisis.
13. The NextGenerationEU instrument in the context of efforts for economic recovery and resilience.
14. The Economic Recovery and Resilience Plan and its implementation in the conditions of the Slovak Republic - main milestones and their fulfillment.

Recommended literature:

1. NUGENT, N. 2017. The Government and Politics of the European Union (8th Edition). Londýn: Palgrave Macmillan, 2017, ISBN: 9781137454089 2. CINI, Michelle a Nieves Pérez SOLÓRZANO BORRAGÁN, 2022. European Union Politics. New York, NY: Oxford University Press, USA. 7th edition. ISBN 978-0-19-886223-9. 3. Kratochvíl, P.: Teorie evropské integrace. Praha: Portál 2008 4. Wiener, A., Diez, T. (Eds.): European Integration Theory. Oxford: Oxford University Press 2004 Elistrup-Sangiovanni, M. (Ed.): Debates on European Integration: A Reader. Basingstoke Palgrave Macmillan 2006, 5. Nelsen, B. F. – Stubb, A. (Eds.): The European Union: Readings on Theory and Practice of European Integration. Basingstoke: Palgrave Macmillan, 2003, 6. Rosamond, B.: Theories of European Integration. Basingstoke: Palgrave Macmillan 2000, 7. Rýsová, L., Štulajter, M., Slobodníková, I., Olejárová, B.: Introduction to European Integration. Banská Bystrica, FPVaMV UMB, 2018, ISBN 978-80-557-1398-4., 8. Rýsová, L., Dobrík, M.: Analýza vybraných náhľadov na proces európskej integrácie In Evropa 21. století: rozmanitost a soudržnost? / zost. Marta Goňcová a kol. Brno:Masarykova univerzita, Centrum pro evropská studia, 2008. - ISBN 978-80-210-4766-2. s. 73-96, 9. Rýsová, L.: Koncepcia neofunkcionalizmu In Interpolis '06 : zborník príspevkov z 3. vedeckej konferencie doktorandov v Banskej Bystrici, 23. novembra 2006 / zost. Dagmar Hoscheková, Rastislav Kazanský. Banská Bystrica : Univerzita Mateja Bela, 2006. ISBN 978-80-8083-375-6. s. 142-150, 8. Dušek, J., Pána, L. a kol.: Udržitelný rozvoj v evropských regionech 1. vyd. - České Budějovice:Vysoká škola evropských a regionálních studií, 2010. - 400 s. - ISBN 978-80-86708-90-4.

Language of instruction:

Notes:student time load:

Course assessment

The final number of assessed students: 302

abs	n	p	v
99.67	0.33	0.0	0.0

Instructor: Mgr. Vladimír Müller, PhD., doc. PhDr. Lucia Rýsová, PhD.

Last changed: 20.02.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-geu-205	**Course name:** European integration organizations

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
a) continuous assessment:
Presentation of a report and active participation in seminars (40%)
b) final assessment:
Written exam (60%)

Learning objectives:
After completing the course, the student:
1. defines the basic concepts such as integration and international organizations,
2. is able to state the causes and objectives of integration processes,
3. evaluates the advantages and disadvantages of international integration,
4. provides examples of integration in Europe and worldwide,
5. characterizes the origins and development of integration processes in Europe after the Second World War,
6. identifies the most important milestones of European integration,
7. describes the individual waves of enlargement of the European Communities and/or the European Union up to its present form,
8. lists the candidate countries and assesses their chances of accession to the European Union,
9. know the most important institutions of the European Union, describes their position and functioning,
10. evaluates the position of the European Union in the contemporary world and states the priorities of its foreign and security policy,
11. is able to take a position on current issues of EU monetary, agricultural, and regional policy,
12. is able to discuss important challenges facing contemporary Europe, such as the migration crisis, the rise of populism and extremism, environmental problems, rural depopulation, population ageing, and the sustainability of the welfare state,
13. evaluates Slovakia's position within the European Union and other integration groupings,
14. is able to discuss the advantages and disadvantages of Slovakia's membership in the European Union.

Brief outline of the course:
• Definition of the concept of integration, types and stages of integration, examples of existing integration groupings worldwide, significance of integration (advantages and disadvantages).

• Various concepts and attempts at integration in Europe in the past (before 1945); integration groupings in Western and Eastern Europe during the Cold War (Euratom, Coal and Steel Community, EEC vs. COMECON).
• The process to the creation of the European Union and the successive waves of its enlargement up to its current form; possible scenarios for further EU enlargement.
• Internal functioning of the EU, its structure and institutions.
• Current discussions on the state and possible reforms of the EU, different perspectives on its internal organization and future perspectives.
• The EU's position in the contemporary global geopolitical situation; EU foreign and security policy.
• EU monetary policy.
• EU agricultural policy.
• Europe of regions, regionalism in the EU, regional policy and regional disparities, euroregions.
• Other integration groupings in contemporary Europe, their characteristics and significance (EFTA, EEA, OSCE, SEI, CEFTA, V4, Benelux, and others).
• The process of Slovakia's integration and its position within the EU.
• Slovakia's membership and position in other integration groupings.

Recommended literature:

1. ASH, T. G. (2006): Svobodný svět. Amerika, Evropa a budoucnost západu. Praha : Paseka, 2006, 240 s. ISBN 80-7185-707-6
2. GEISTLINGER, M. a kol. (2000): Európska integrácia. Bratislava : Eurounion, 2000, 341 s. ISBN 80-88984-13-0
3. GERBET, P. (2004): Budování Evropy. Praha: Karolinum, 2004, 450 s. ISBN 80-246-0111-7
4. KOZIAK, T. (2003): Federálna únia a britské projekty európskej integrácie do r. 1945. Prešov, 2003. 145 s. ISBN 80-88876-11-7
5. KREJČÍ, O. (2000): Geopolitika středoevropského prostoru. Praha : Ekopress, 2000, 319 s. ISBN 80-86119-29-7
6. DEFARGES, P. M. (2002): Evropské instituce. Praha : Karolinum, 221 s. ISBN 8024600862
7. PLECHANOVOVÁ, B. (2004): Institucionální vývoj Evropské unie od Maastrichtské smlouvy k východnímu rozšíření. Praha : Karolinum, 2004. ISBN 80-246-0800-6
8. ŠÍBL, D. a kol. (2001): Európska únia. Bratislava : Ekonóm, 2001, 221 s. ISBN 80-225-1376-8.
9. ŠÍBL, D. a kol. (2004): Postavenie Slovenska v Európskej únii. Bratislava : Ekonóm, 2004, 250 s. ISBN 80-225-1864-4
10. VEBER, L. (2004): Dějiny sjednocené Evropy od antických počátku po současnost. Praha : Lidové noviny, 2004, 645 s.

Language of instruction:

slovak

Notes:student time load:

90 hours
Combined study (seminars, consultation): 26 hours
Preparation of a presentation: 20 hours
Ongoing preparation for seminars: 13 hours
Self-study and exam preparation: 31 hours

Course assessment
The final number of assessed students: 42

A	B	C	D	E	FX(0)	FX(1)	n
73.81	16.67	0.0	0.0	0.0	7.14	0.0	2.38

Instructor: RNDr. Tibor Madleňák, PhD.

Last changed: 17.02.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-313 | **Course name:** Everyday Chemistry

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 309

abs	n	p	v
95.15	4.85	0.0	0.0

Instructor: doc. RNDr. Marek Skoršepa, PhD.

Last changed: 29.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-211 | **Course name:** Field course abroad

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 120s
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
Active participation in field courses organized by the Department of Geography and Geology, Faculty of Natural Sciences, UMB, lasting 10 to 12 days in a selected country or region (the destination changes each year). To enroll in the course, it is necessary to follow the announcements on the department's website and register via the online application form within the specified time period. The instructor will confirm or decline participation by email. Students are responsible for covering the financial costs associated with participation in the field courses. The requirements for successful completion are specified with regard to the visited country and regions.
Active participation in field courses includes: preparation of a selected topic; participation in discussions on selected issues; preparation of photo documentation; use of field orientation tools; sharing experiences from visited locations with other participants of the field course; and participation in workshops organized in cooperation with the visited universities.

Learning objectives:
The student:
• prepare for fieldwork by studying literature and using map and online sources,
• is able to navigate in unfamiliar terrain,
• uses orientation tools (maps, diagrams, plans, GPS devices),
• applies acquired knowledge in a specific geographical area,
• applies and develops critical analysis and resulting synthesis,
• evaluates causal relationships behind differing economic levels of regions and generalizes the acquired knowledge,
• uses a foreign language in research tasks as well as in communication with residents, authorities, and institutions,
• assesses acquired knowledge and develops new foundations leading to comprehensive syntheses,
• creates textual and visual materials,
• is able to defend his/her opinions and support them with the submitted work.

Brief outline of the course:
• Landscape type of a European or non-European region
• A specific rural and urban area that does not occur in Slovakia
• Coastal, high-mountain, arid, or humid landscape area

• Population and settlements of the selected region
• Historical, social, and political development of the region
• Economic activities and the economic development level of the region

Recommended literature:

1. GAJDOŠ, A. a kol., 2014. Regionálna geografia Európy. Bratislava: VEDA. 592 s. ISBN 978-80-224-1304-6
2. GAJDOŠ, A., MADLEŇÁK, T., 2020: Geografia regiónov Európy. Južná Európa. 1.vyd. Banská Bystrica : Fakulta prírodných vied Univerzity Mateja Bela, 2020, 127 s. ISBN 978-80-557-1796-8. VI
3. GAJDOŠ, A., MADLEŇÁK, T., 2022: Geografia regiónov Európy : Juhovýchodná Európa 1. časť. - 1. vyd. - Banská Bystrica : Vydavateľstvo Univerzity Mateja Bela - Belianum, 2022, 73 s. ISBN 978-80-557-2013-5. Dostupné na: https://www.fpv.umb.sk/katedry/katedra-geografie-a-geologie/veda-a-vyskum/publikacie/book-19586/geografia-regionov-europy-juhovychodna-europa-1-cast.html
4. Professional textual and cartographic sources on individual European regions and countries, or non-European territories.

Language of instruction:
slovak, english

Notes:student time load:
Preparation and active fieldwork: 120 hours
Self-study and preparation of a selected topic: 30 hours
Processing of photo documentation and worksheets: 30 hours

Course assessment
The final number of assessed students: 66

A	B	C	D	E	FX(0)	FX(1)	n
56.06	0.0	0.0	0.0	0.0	42.42	0.0	1.52

Instructor: RNDr. Tibor Madleňák, PhD., doc. RNDr. Alfonz Gajdoš, PhD., RNDr. Michaela Žoncová, PhD.

Last changed: 18.02.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-133 | **Course name:** Financial literacy

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 99

abs	n	p	v
94.95	5.05	0.0	0.0

Instructor: Ing. Jana Crmanová

Last changed: 21.09.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-255 | **Course name:** Game Development and User Experience

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 5.

Level: I., P

Prerequisites: KIN FPV/1d-ain-245/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 89

A	B	C	D	E	FX(0)	FX(1)
32.58	35.96	2.25	6.74	16.85	5.62	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-fpv-107	**Course name:** Geographical expolration of Europe

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:
Mandatory: 100% attendance at the scheduled seminars
Continuous assessment: attendance record
Final assessment: quantitative evaluation of attendance and active participation in the presented topic

Learning objectives:
After completing the course, the student is able to:
1. identify geographical areas and countries of Europe and the Mediterranean
2. master the presented geographical area so that he has basic knowledge of geographical phenomena,
3. is able to know and actively use existing basic sources of information, critically evaluate them and partially synthesize them in the form of a current discussion,
4. apply theoretical knowledge and own experience in evaluating the presented area.
5. analyze the socio-political conditions of the designated geographical area of Europe

Brief outline of the course:
-Central Europe (areas: Alpine, Carpathian, Baltic, North Sea, Rhineland, Danube),
-Western Europe (areas: Rhine Delta, Greater Paris, Greater London, British Isles),
-Southwestern Europe (areas: Iberian, Apennine, Insular),
-Southeastern Europe (areas: Adriatic, Dinaric, Hellenic, Black Sea),
-Eastern Europe (areas: Carpathian, Polesie, Dnieper, Crimean, European part of Russia),
-Northern Europe (areas: Scandinavian, Jutland, Baltic, Insular),

Recommended literature:
GAJDOŠ, A. a kol., 2014. Regionálna geografia Európy. Bratislava: VEDA. 592 s. ISBN 978-80-224-
1304-6
GAJDOŠ, A., MADLEŇÁK, T., 2020: Geografia regiónov Európy. Južná Európa. 1.vyd. Banská Bystrica
: Fakulta prírodných vied Univerzity Mateja Bela, 2020, 127 s. ISBN 978-80-557-1796-8. VI
GAJDOŠ, A., MADLEŇÁK, T., 2022: Geografia regiónov Európy : Juhovýchodná Európa 1. časť. - 1.

vyd. - Banská Bystrica : Vydavateľstvo Univerzity Mateja Bela - Belianum, 2022, 73 s. ISBN 978-80-557-
2013-5. Dostupné na: https://www.fpv.umb.sk/katedry/katedra-geografie-a-geologie/veda-a-vyskum/publikacie/book-19586/geografia-regionov-europy-juhovychodna-europa-1-cast.html

Language of instruction:
slovak

Notes:student time load:
Notes - student workload: 26 hours
combined study (P, C/L, consultation): 26 hours

Course assessment
The final number of assessed students: 1611

abs	n	p	v
90.07	9.93	0.0	0.0

Instructor: doc. RNDr. Alfonz Gajdoš, PhD., RNDr. Tibor Madleňák, PhD.

Last changed: 10.04.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-124 **Course name:** Graph Algorithms

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 308

A	B	C	D	E	FX(0)	FX(1)
6.82	10.39	11.36	12.34	22.4	12.34	24.35

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 31.01.2024

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-HAT1-003 | **Course name:** Hra a tanec 1

Type, extent and method of instruction:
Form of instruction: Practical / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 13
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 46

abs	n	p	v
100.0	0.0	0.0	0.0

Instructor: Mgr. art. Martin Urban, PhD.

Last changed: 30.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-504 | **Course name:** Information Security

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 277

abs	n	p	v
89.53	10.47	0.0	0.0

Instructor: doc. Ing. Ľudovít Trajteľ, PhD., PaedDr. Mgr. Vladimír Siládi, PhD.

Last changed: 28.08.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_DVaJO_cuvp	**Course name:** Intellectual and Industrial Property of an Organization

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
attendance at lectures

Learning objectives:
The student:
1. understands the importance of intellectual property in business activities.
2. understands the basic framework of intellectual property law in the Slovak Republic, the EU, and at the regional/international level, including the costs associated with its protection.
3. is able to identify the creation of intellectual property within a company and establish basic processes for its protection.
4. is capable of selecting an optimal intellectual property protection strategy with regard to the type of product/service.
5. is able to apply the basic principles of intellectual property commercialization.
6. is able to identify and prevent infringements of the intellectual property rights of other entities.

Brief outline of the course:
The aim of the course is to provide students with theoretical and practical knowledge of intellectual property and the importance of its protection in business practice. The course focuses on the creation of intellectual property within a company, strategies for its protection, and possibilities for its effective use and commercialization. It also addresses the significance and benefits arising from intellectual property protection for current and future entrepreneurs, as well as examples of good practice.
Experts in the field of intellectual property and industrial property protection will introduce students to the possibilities of protecting brands, ideas, innovations, designs, patents, and copyrighted works, including computer programs and software. Students will gain knowledge about when and how intellectual property should be protected in Slovakia and abroad, how it can be commercialized, and how intellectual property rights can be exercised, enforced, and respected in business activities. The course will also include practical examples and analyses of disputes concerning patents, trademarks, designs, and software based on cases from the practice of the Industrial Property Office of the Slovak Republic. Experts from the Industrial Property Office of the Slovak Republic will participate in the lectures.

Recommended literature:

1. VOJČÍK, Peter a kol. Právo duševného vlastníctva. 2. vyd. Plzeň: Aleš Čeněk, s. r. o. 2014. 496 s. ISBN 978-80-7380-527-2.
2. ADAMOVÁ, Zuzana. Právo duševného vlastníctva. Bratislava: TINCT, 2020. ISBN 978-80-973544-0-4.
3. BAČÁROVÁ Renáta a kol. Ochrana ľudských hodnôt v súkromnom práve. TypoPress, 2023. 229 s. ISBN 978-80-8129-144-9.
4. MEDVEC, Matúš a kol. Označenia pôvodu výrobkov a zemepisné označenia výrobkov. Bratislava: C. H. Beck, s.r.o., organizačná zložka, 2024. 208 s. ISBN 978-80-8232-048-3.
5. SVAČINA, Pavel; BOHÁČEK, Martin; BAČÁROVÁ, Renáta; RÝDLOVÁ, Barbora. Odměňování zaměstnaneckých (podnikových) vynálezů a jeho přiměřenost – právní a ekonomické aspekty. Praha: Wolters Kluwer ČR, 2020, 376 s. ISBN 97880766760189
6. FARKAŠOVÁ, Elena; PETRÁNSKY, Ľudovít. Design teória a metodológia 1. Vydavateľstvo Technickej univerzity vo Zvolene, 1. vyd. 2020, 201 s. ISBN 978-80-228-3219-9.
7. FARKAŠOVÁ, Elena; PETRÁNSKY, Ľudovít. Design teória a metodológia 2. Vydavateľstvo Technickej univerzity vo Zvolene, 1. vyd. 2020, 183 s. ISBN 978-80-228-3243-4.
8. BABIAKOVÁ, Barbora, LALÍKOVÁ, Lucia. Ochrana duševného vlastníctva. Banská Bystrica:
Vydavateľstvo UMB, 2011. ISBN 978-80-557-0179-0. 2.
9. POLTORAK, A. I., & LERNER, P. J. (2013). Essentials of licensing intellectual property. John Wiley & Sons.
10. STIM, R. (2026). Patent, copyright & trademark: An intellectual property desk reference (19th ed.). Nolo.
11. BAINBRIDGE, D. I. (2021). Intellectual property (11th ed.). Pearson Education.
12. CORNISH, W., LLEWELYN, D., & APLIN, T. (2022). Intellectual property: Patents, copyright, trademarks and allied rights (10th ed.). Sweet & Maxwell.
13. KRUSPIG, S., & SCHWARZ, C. (2019). Legal protection for computer-implemented inventions: A practical guide. Wolters Kluwer.
14. European Commission. (2023). Your guide to IP commercialisation. European IP Helpdesk. https://intellectual-property-helpdesk.ec.europa.eu
15. Úrad priemyselného vlastníctva Slovenskej republiky. (2024). Duševné vlastníctvo v podnikaní. Banská Bystrica: ÚPV SR. https://www.indprop.gov.sk
16. World Intellectual Property Organization. (2022). Intellectual property for business series. Geneva: WIPO. https://www.wipo.int/sme/en
17. OECD. (2022). Intellectual property rights and innovation in SMEs. OECD Publishing. https://www.oecd.org
18. Časopis Duševné vlastníctvo (vychádza 2x ročne)
Zákon č. 435/2001 Z.z. o patentoch dodatkových ochranných osvedčeniach a o zmene a doplnení niektorých zákonov (patentový zákon),
Zákon č. 517/2007 Z.z. o úžitkových vzoroch a o zmene a doplnení niektorých zákonov,
Zákon č. 444/2002 Z.z. o dizajnoch,
Zákon č. 506/2009 Z.z. o ochranných známkach,
Zákon č. 469/2003 Z.z. o označeniach pôvodu výrobkov a zemepisných označeniach výrobkov a o zmene a doplnení niektorých zákonov.

Language of instruction:
Slovak

Notes:student time load:
90 hours
direct teaching: 26 hours

self-study: 64 hours

Course assessment
The final number of assessed students: 276

abs	n	p	v
81.88	18.12	0.0	0.0

Instructor: Ing. Barbora Mazúrová, PhD.

Last changed: 21.05.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-251 **Course name:** Internet of Things

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 24

A	B	C	D	E	FX(0)	FX(1)
66.67	12.5	16.67	0.0	0.0	0.0	4.17

Instructor: Mgr. Rudolf Kubík

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-508 | **Course name:** Introduction to Cybersecurity

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 13
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 14

A	B	C	D	E	FX(0)	FX(1)
100.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD.

Last changed: 12.02.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-241 | **Course name:** Introduction to Parallel Programming

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 39

A	B	C	D	E	FX(0)	FX(1)
23.08	38.46	12.82	12.82	5.13	5.13	2.56

Instructor: doc. Ing. Jarmila Škrinárová, PhD., RNDr. Miroslav Melicherčík, PhD., univ. doc.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-132 | **Course name:** Introduction to Theoretical Computer Science

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 5

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 188

A	B	C	D	E	FX(0)	FX(1)
11.7	11.7	13.83	15.43	22.87	6.38	18.09

Instructor: doc. Mgr. Adam Dudáš, PhD., Mgr. Michal Vagač, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-uPPvK	**Course name:** Labour Law in a nutshell

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
The prerequisite for passing the course is attendance at a minimum of 90% of the teaching and active participation of students in class. The evaluation is in accordance with the classification scale according to the Study Regulations of Matej Bel University.

a) continuous assessment:
Continuous evaluation is not performed.

b) final assessment:
The basis for the award of the final grade is the demonstration of mastery of the knowledge of the lecture material, which is demonstrated in an active dialogue with the teacher in the teaching of the subject.

Learning objectives:
The graduate will have knowledge of the basic principles and functions of labor law, will be oriented in the basic provisions of the Labor Code, should be able to apply them to individual and collective labor relations in practical life.

Brief outline of the course:
1. Concept and subject of labour law. Basic principles of labour law.
2. Subjects of labour law, labour law subjectivity. Pre-contractual relations.
3. Employment contract (essential elements, other arrangements). Probationary period.
4. Types of employment relationship. Fixed-term employment. Methods of termination of employment.
5. Agreement on termination of employment (subjects, form, reasons). Termination of employment (subjects, form, reasons).
6. Immediate termination of employment (subjects, form, reasons). Severance pay, severance pay. Prohibition of competing activities during and after termination of employment.
7. Working time (scheduling, length). Rest periods.
8. Overtime work, on-call time. Types of leave (brief characteristics).
9. Wages (brief characteristics). Maternity leave, parental leave.
10. Obstacles to work on the part of the employee. Obstacles to work on the employer's side.
11. Assumptions of liability for damages. Employee's liability for damages.
12. Employer's liability for damages. Agreements for work performed outside the employment relationship (brief characteristics).

Recommended literature:
TKÁČ, V. - ŠVEC, M. - PETRÍKOVÁ, L. - POLÁČEK TUREKOVÁ, Z. - SLIVKA BEDLOVIČOVÁ, J. 2021. Pracovné právo. 1. vyd. Banská Bystrica: Belianum, 2021, 405 s. ISBN 978-80-557-1855-2.
PETRÍKOVÁ, L. 2021. Nové trendy v pracovnom práve. 1. vyd. Banská Bystrica: Belianum, 2021, 114 s. ISBN 978-80-557-1830-9. PODHOREC, I. - POLÁČEK TUREKOVÁ, Z. - PETRÍKOVÁ, L. 2016. Repetitórium pracovného práva. 1. vydanie. Bratislava: Wolters Kluwer s. r. o., 2016, 95 s. Current wording - no. 311/2001 Coll. Labor Code as amended.

Language of instruction:
Slovak language

Notes:student time load:
90 hours
combinated study (L, C): 26 hours
self-study: 64 hours

Course assessment
The final number of assessed students: 491

abs	n	p	v
91.85	8.15	0.0	0.0

Instructor: JUDr. Lucia Petríková, PhD.

Last changed: 22.05.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_LPORP_cupv	**Course name:** Leadership, Entrepreneurship and Personal Development in Practice

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
a) Continuous assessment – Ideathon: 50 points
b) Final assessment – active participation: 50 points.

Learning objectives:
After completing the course, the student will:
1. formulate their own vision and translate it into a specific project plan in the field of business, public services or the non-profit sector,
2. apply creative idea generation techniques and select solutions that respond to real social or market needs,
3. identify the problems of target groups and verify them through interviews, feedback and rapid testing,
4. propose a solution during a team Ideathon and transforms the idea into the basic concept of the project (business plan),
5. create a simple concept of a product, service or initiative and iteratively improve it based on feedback from mentors,
6. cooperate in a team, take on a leadership role and effectively coordinate work in solving a project challenge,
7. make decisions under conditions of time pressure and uncertainty typical of Ideathon and project work,
8. propose a basic model of project implementation including the value proposition and the expected impact,
9. effectively communicate the solution and present the project in the form of a short pitch in front of a panel of experts,
10. reflect on one's own learning process, analyzes mistakes and develops psychological resilience and entrepreneurial thinking,
11. builds self-confidence, authentic performance and the ability to receive constructive feedback.

Brief outline of the course:
The course is divided into 12 topics, which are provided by internal lecturers and external experts:
1. Introduction to leadership, entrepreneurship and personal development. Self-diagnosis through Gallup methodology (talent identification). Course objectives and completion conditions.

2. Vision board. Creating a vision, setting goals, values and personal direction. Coaching. Teamwork.
3. Leadership in a team: management skills, roles in a team, coordination, conflict resolution. Project management. Strategic decision-making and project planning - business model, implementation plan, impact measurement.
4. Leader in practice 1: Change management as an effective tool.
5. Leader in practice 2: Leading an institution or project.
6. Identifying needs and problems, connecting with talents. Working with the target group, mapping stakeholders, validating the problem.
7. Product/service concept creation (team building).
8. Value proposition (1.Target customer, 2.Problem/Need, 3.Solution/Benefit, 4.Differentiation)
9. Ideathon with mentor support and use of AI tools (Business plan creation). Creative thinking and idea generation – ideation techniques in the areas of business, public services and the non-profit sector.
10. Ideathon evaluation (argumentation and presentation for potential investors). Communication, pitching and networking – presentation of solutions, storytelling, working with the audience.
11. Entrepreneur's story (inspirational lecture).
12. Final reflection and evaluation. Feedback.

Recommended literature:

1. Blank, S., & Dorf, B. (2012). The startup owner's manual: The step-by-step guide for building a great company. K&S Ranch.
2. Brown, B. (2025). Strong ground: The lessons of daring leadership, the tenacity of paradox, and the wisdom of the human spirit. Random House.
3. Brown, T. (2009). Change by design: How design thinking transforms organizations and inspires innovation. Harper Business.
4. Collins, J., & Lazier, B. (2020). Beyond entrepreneurship 2.0: Turning your business into an enduring great company. Random House.
5. Covey, S. R. (2014). 7 návyků skutečně efektivních lidí. Management Press.
6. Dees, J. G., Emerson, J., & Economy, P. (2002). Strategic tools for social entrepreneurs: Enhancing the performance of your enterprising nonprofit. John Wiley & Sons.
7. Drucker, P. F. (2007). Inovace a podnikavost: Praxe a principy. Management Press.
8. Kotter, J. P. (2012). Leading change (Rev. ed.). Harvard Business Review Press.
9. Knapp, J., Zeratsky, J., & Kowitz, B. (2016). Sprint: How to solve big problems and test new ideas in just five days. Simon & Schuster.
10. Mulgan, G. (2019). Social innovation: How societies find the power to change. Policy Press.
11. Osterwalder, A., & Pigneur, Y. (2010). Business model generation: A handbook for visionaries, game changers, and challengers. John Wiley & Sons.
12. Ries, E. (2011). The lean startup: How today’s entrepreneurs use continuous innovation to create radically successful businesses. Crown Business.

Language of instruction:

Slovak, English

Notes:student time load:

90 hours, of which:
Combined study (L, S, C): M – 26 h.
Self-study: 30 h.
Preparation and implementation of the ideathon: 30 h.
Data collection: 4 h.

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)	n
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: Ing. Ivan Sedliačik, PhD., Ing. Michal Mešťan, PhD., MBA

Last changed: 11.05.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-tech-310 | **Course name:** Machines and devices for treatment wood and metal

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 6

A	B	C	D	E	FX(0)	FX(1)
66.67	0.0	33.33	0.0	0.0	0.0	0.0

Instructor: Ing. Martin Kučerka, PhD., univ. doc., prof. Ing. Alena Očkajová, PhD.

Last changed: 10.09.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-upp-307 | **Course name:** Machines and devices for treatment wood and metal

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 6

A	B	C	D	E	FX(0)	FX(1)
0.0	33.33	16.67	16.67	16.67	0.0	16.67

Instructor: Ing. Martin Kučerka, PhD., univ. doc., prof. Ing. Alena Očkajová, PhD.

Last changed: 10.09.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-113 | **Course name:** Mathematics for Informatics 1

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 39
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 328

A	B	C	D	E	FX(0)	FX(1)
16.16	12.8	14.63	17.99	17.38	3.35	17.68

Instructor: doc. Mgr. Adam Dudáš, PhD., doc. RNDr. Alžbeta Michalíková, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-123 | **Course name:** Mathematics for Informatics 2

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 292

A	B	C	D	E	FX(0)	FX(1)
10.62	7.88	15.75	12.33	21.23	15.41	16.78

Instructor: doc. Mgr. Adam Dudáš, PhD., doc. RNDr. Alžbeta Michalíková, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-fpv-506	**Course name:** Mentoring pri vývoji softvéru
Type, extent and method of instruction: **Form of instruction:** Seminar **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26 **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 5.	
Level: I., P	
Prerequisites:	
Course completion conditions:	
Learning objectives:	
Brief outline of the course:	
Recommended literature:	
Language of instruction:	
Notes:student time load:	
Course assessment The final number of assessed students: 0	

abs	n
0.0	0.0

Instructor:
Last changed: 23.06.2025
Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-238 **Course name:** Modelling in Matlab

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 50

A	B	C	D	E	FX(0)	FX(1)
44.0	20.0	14.0	4.0	10.0	0.0	8.0

Instructor: doc. Ing. Jarmila Škrinárová, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-115 **Course name:** Multimedia

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 327

A	B	C	D	E	FX(0)	FX(1)
17.74	21.41	22.32	13.46	15.6	3.06	6.42

Instructor:

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-237 | **Course name:** Numerical Methods

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 47

A	B	C	D	E	FX(0)	FX(1)
36.17	17.02	14.89	8.51	10.64	2.13	10.64

Instructor: doc. Mgr. Adam Dudáš, PhD., doc. RNDr. Alžbeta Michalíková, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-2d-umb-301	**Course name:** Národné obranné sily

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 14d / 4s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., II.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: doc. PaedDr. Miriam Spodniaková Pfefferová, PhD.

Last changed: 13.09.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-uOI	**Course name:** Ochrana inovácií

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 227

abs	n	p	v
86.78	13.22	0.0	0.0

Instructor: doc. JUDr. Juraj Takáč, PhD.

Last changed: 12.09.2024

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-141 | **Course name:** Operating Systems 1

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 177

A	B	C	D	E	FX(0)	FX(1)
15.82	7.34	27.68	14.69	13.56	9.6	11.3

Instructor: doc. Ing. Jarmila Škrinárová, PhD., Mgr. Adrián Hamada

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-151 | **Course name:** Operating Systems 2

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 116

A	B	C	D	E	FX(0)	FX(1)
23.28	20.69	23.28	11.21	14.66	4.31	2.59

Instructor: doc. Ing. Jarmila Škrinárová, PhD., Mgr. Adrián Hamada

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-127 | **Course name:** Out-of-School Activities in Didactics of Informatics 1

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 72

abs	n	p	v
72.22	27.78	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 11.04.2016

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-230 | **Course name:** Out-of-School Activities in Didactics of Informatics 2

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26s
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 111

abs	n	p	v
83.78	16.22	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 23.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-133 | **Course name:** Out-of-School Activities in Didactics of Informatics 3

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39s
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 62

abs	n	p	v
88.71	11.29	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 23.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-134 | **Course name:** Out-of-School Activities in Didactics of Informatics 4

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39s
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 49

abs	n	p	v
79.59	20.41	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 23.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-fpv-135	**Course name:** Out-of-School Activities in Didactics of Informatics 5

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39s
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 29

abs	n	p	v
79.31	20.69	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 23.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-136 | **Course name:** Out-of-School Activities in Didactics of Informatics 6

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39s
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 6.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 25

abs	n	p	v
68.0	32.0	0.0	0.0

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 23.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vstv-101 **Course name:** Physical Education 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 531

abs	n	p	v
72.32	27.68	0.0	0.0

Instructor: Mgr. Jaroslav Popelka, PhD., PaedDr. Jaroslav Kompán, PhD., doc. PaedDr. Jiří Michal, PhD., Mgr. Andrea Izáková, PhD., PaedDr. Mgr. Lukáš Opáth, PhD., doc. PaedDr. Pavol Pivovarniček, PhD., Mgr. Michal Hlávek, PhD., Mgr. Marián Škorik, PhD., Mgr. Andrej Dibdiak, Mgr. Bc. Lukáš Karabín, Mgr. Olívia Mudráková, Mgr. Marek Janík, Mgr. Dominik Klimek

Last changed: 19.10.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vstv-102 | **Course name:** Physical Education 2

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 551

abs	n	p	v
79.31	20.69	0.0	0.0

Instructor: Mgr. Jaroslav Popelka, PhD., PaedDr. Jaroslav Kompán, PhD., Mgr. Andrea Izáková, PhD., doc. PaedDr. Jiří Michal, PhD., PaedDr. Mgr. Lukáš Opáth, PhD., doc. PaedDr. Pavol Pivovarniček, PhD., Mgr. Michal Hlávek, PhD., Mgr. Marián Škorik, PhD., Mgr. Andrej Dibdiak, Mgr. Bc. Lukáš Karabín, Mgr. Olívia Mudráková, Mgr. Marek Janík, Mgr. Dominik Klimek

Last changed: 19.10.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vstv-103 | **Course name:** Physical Education 3

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 322

abs	n	p	v
83.23	16.77	0.0	0.0

Instructor: Mgr. Jaroslav Popelka, PhD., PaedDr. Jaroslav Kompán, PhD., Mgr. Andrea Izáková, PhD., doc. PaedDr. Jiří Michal, PhD., PaedDr. Mgr. Lukáš Opáth, PhD., doc. PaedDr. Pavol Pivovarniček, PhD., Mgr. Michal Hlávek, PhD., Mgr. Marián Škorik, PhD., Mgr. Bc. Lukáš Karabín, Mgr. Andrej Dibdiak, Mgr. Olívia Mudráková, Mgr. Marek Janík, Mgr. Dominik Klimek

Last changed: 19.10.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vstv-104 **Course name:** Physical Education 4

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 253

abs	n	p	v
82.21	17.79	0.0	0.0

Instructor: Mgr. Jaroslav Popelka, PhD., PaedDr. Jaroslav Kompán, PhD., Mgr. Andrea Izáková, PhD., doc. PaedDr. Jiří Michal, PhD., PaedDr. Mgr. Lukáš Opáth, PhD., doc. PaedDr. Pavol Pivovarniček, PhD., Mgr. Michal Hlávek, PhD., Mgr. Marián Škorik, PhD., Mgr. Bc. Lukáš Karabín, Mgr. Andrej Dibdiak, Mgr. Olívia Mudráková, Mgr. Marek Janík, Mgr. Dominik Klimek

Last changed: 19.10.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vstv-105 | **Course name:** Physical Education 5

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 88

abs	n	p	v
87.5	12.5	0.0	0.0

Instructor: Mgr. Jaroslav Popelka, PhD., PaedDr. Jaroslav Kompán, PhD., Mgr. Andrea Izáková, PhD., doc. PaedDr. Jiří Michal, PhD., PaedDr. Mgr. Lukáš Opáth, PhD., doc. PaedDr. Pavol Pivovarniček, PhD., Mgr. Michal Hlávek, PhD., Mgr. Marián Škorik, PhD., Mgr. Bc. Lukáš Karabín, Mgr. Andrej Dibdiak, Mgr. Olívia Mudráková, Mgr. Marek Janík, Mgr. Dominik Klimek

Last changed: 19.10.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-geu-301 | **Course name:** Planetary geography

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 201

A	B	C	D	E	FX(0)	FX(1)	n
33.83	12.44	21.89	16.92	8.96	3.98	1.99	0.0

Instructor: Mgr. Lenka Balážovičová, PhD.

Last changed: 28.06.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1-PAPĽP	**Course name:** Practical Aspects of Human Rights Promotion

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 0
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
a) continuous assessment:
Active participation in classes (80%)
Fulfillment of assignments:
Processing of a selected human rights topic into the form of a status on social networks (individual work)
Preparation and presentation of a brief presentation on one of the following three options: about a selected book on human rights topics, about a current human rights issue, or about a human rights-focused event or activity (individual work)
Preparation and implementation of a 30-minute discussion on one of the topics of the course (group work)
b) final assessment:
Active participation in the final colloquium

Learning objectives:
Graduates of the course acquired basic knowledge about the observance of human rights in society and learned to analyze these topics in a broader context. During their studies, they developed the ability to critically assess specific cases of human rights violations, examine their causes and consequences, and evaluate what legal and advocacy tools can contribute to solving them. They also gained practical skills in engaging in activities that contribute to improving the human rights situation of groups exposed to violations. Graduates are ready to engage in projects and initiatives aimed at positive changes in the sphere of human rights in their surroundings, while maintaining openness to new perspectives and solutions to human rights violations.

Brief outline of the course:
Universality and Diversity of Human Rights: Theoretical Approaches and Their Application
NGOs in the Human Rights Ecosystem: Actors, Evolution and Impact
Right to Protest: Freedom, Regulations and Authoritarian Practices
Human Rights Defenders: Between Recognition and Persecution
Racism in the 21st Century: Structural Discrimination, Privilege and Marginalization
Housing, poverty and inequality: Economic and social rights at stake
Human Rights Education as a Tool for Change: Knowledge, Values and Civic Engagement
Safe space for all: Preventing sexualized violence through education

Cultivating human rights hope: Social, activist and artistic practice
Human rights in the digital world
Local and community dimension of human rights protection

Recommended literature:

DEMBOUR, Marie-Bénédicte, 2010. What Are Human Rights? Four Schools of Thought. In: Human Rights Quarterly [online]. Johns Hopkins University Press, 32(1), 2-20 [cit. 2024-05-03]. ISSN 1085-794X. Dostupné na: https://doi.org/10.1353/hrq.0.0130.
DONNELLY, Jack, 2003. Universal Human Rights in Theory and Practice. Ithaca: Cornell University Press. 290 p. ISBN 978-0-8014-8776-7.
MOYN, Samuel, 2022. Poslední utopie. Lidská práva v dějinách. Praha: Rybka Publishers. 387 s. ISBN 978-80-87950-92-0.
SLIWINSKI, Sharon, 2009. The Aesthetics of Human Rights. In: Culture, Theory & Critique [online]. Taylor & Francis, 50(1), 23-39 [cit. 2024-02-01]. ISSN 1473-5776. Available at: https://www.researchgate.net/publication/263415538_The_Aesthetics_of_Human_Rights
MADDEN, David; MARCUSE, Peter, 2020. Na obranu bydlení. Praha: Neklid. 166 s. ISBN 9788090756229
AMNESTY INTERNATIONAL, 2024. Nedosiahnuteľná potreba bývať - Výskum o práve na bývanie a dostupnosti verejného nájomného bývania na Slovensku. Amnesty International. 325 s. EUR 72/8641/2024
Relevant Human Rights Online Courses from Amnesty International (academy.amnesty.org, eduworkout.org)
CUSHMAN, Thomas ed. Handbook of Human Rights. New York: Routledge, s. 7-21. ISBN: 978-0-203-88703-5.
hooks, bell, 2023. Feminismus je pro všechny. Politika vášně. Olomouc: Broken Books. 155 s. ISBN 978-80-906307-3-4.
ISHAY, Micheline R., 2023. The Human Rights Reader. New York: Routledge. 693 p. ISBN: 978-1-003-12140-4.
GRAEBER, David a David WENGROW, 2023. Počiatok všetkého. Nová história ľudstva. Bratislava: Tatran. 671 s. ISBN 978-80-222-1402-5.
GREAR, Anna, 2020. Embrancing vulnerability. Notes towards human rights for a more-than-human world. In: BEDFORD, Daniel a Jonathan HERRING, eds. Embrancing vulnerability: The challenges and implication for law. New York: Routledge, pp. 153-174. ISBN: 978-1-351-10570-5.
AGHA, Peter, 2018. Lidská práva v mezikulturních perspektivách. Praha: Nakladatelství Academia, ISBN 978-80-200-2958-4.
GONZALES-SALZBERG, Damian A. a Loveday HODSON, 2020. Research methods for international human rights law. New York: Routledge. ISBN 978-0-429-46897-1.
SMITH, Rhona a Lee McCNNEL, 2018. Research Methods in Human Rights. New York: Routledge. ISBN 978-1-315-67263-2.

Language of instruction:

English, Slovak

Notes:student time load:

Total: 90 hours
- of which:
lectures: 39 hours
preparation of assignments: 30 hours
self-study and preparation for the final colloquium: 21 hours

Course assessment
The final number of assessed students: 26

abs	n	p	v
92.31	7.69	0.0	0.0

Instructor: doc. PhDr. Martina Bolečeková, PhD.

Last changed: 31.08.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-231 | **Course name:** Principles of Smart Cities

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 13
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 42

A	B	C	D	E	FX(0)	FX(1)
40.48	45.24	9.52	4.76	0.0	0.0	0.0

Instructor: prof. Dr. Ing. Miroslav Svítek, Dr.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-153 **Course name:** Professional Practice 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 10

Recommended semester/trimester: 5.

Level: I., P

Prerequisites: KIN FPV/1d-ain-112/21 and KIN FPV/1d-ain-113/21 and KIN FPV/1d-ain-114/21 and KIN FPV/1d-ain-115/21 and KIN FPV/1d-ain-121/21 and KIN FPV/1d-ain-122/21 and KIN FPV/1d-ain-123/21 and KIN FPV/1d-ain-124/21 and KIN FPV/1d-ain-125/21 and KIN FPV/1d-ain-131/21 and KIN FPV/1d-ain-132/21 and KIN FPV/1d-ain-133/21 and KIN FPV/1d-ain-141/21 and KIN FPV/1d-ain-142/21 and KIN FPV/1d-ain-144/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 111

A	B	C	D	E	FX(0)	FX(1)
50.45	32.43	7.21	3.6	0.0	3.6	2.7

Instructor:

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-161 | **Course name:** Professional Practice 2

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 508s
Method of study: combined

Number of credits: 20

Recommended semester/trimester: 6.

Level: I., P

Prerequisites: KIN FPV/1d-ain-153/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 107

A	B	C	D	E	FX(0)	FX(1)
37.38	29.91	23.36	2.8	1.87	3.74	0.93

Instructor:

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-122 | **Course name:** Programming 1

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 39
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 280

A	B	C	D	E	FX(0)	FX(1)
11.79	10.36	16.07	13.21	19.29	20.0	9.29

Instructor: doc. Ing. Jarmila Škrinárová, PhD., RNDr. Miroslav Melicherčík, PhD., univ. doc.

Last changed: 18.05.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-131 | **Course name:** Programming 2

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 5

Recommended semester/trimester: 3.

Level: I., P

Prerequisites: KIN FPV/1d-ain-122/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 166

A	B	C	D	E	FX(0)	FX(1)
24.7	17.47	26.51	12.05	9.04	0.6	9.64

Instructor: doc. Ing. Jarmila Škrinárová, PhD., Mgr. Michal Vagač, PhD., Mgr. Nataliia Časnochová Zozuk, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-142 **Course name:** Programming 3

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-131/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 151

A	B	C	D	E	FX(0)	FX(1)
23.84	17.88	24.5	15.23	11.26	3.97	3.31

Instructor:

Last changed: 11.09.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-511 | **Course name:** Prompt-Based Programming

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)
0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor:

Last changed: 29.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-geu-303 | **Course name:** Remote sensing of the Earth

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 6

A	B	C	D	E	FX(0)	FX(1)	n
33.33	16.67	16.67	0.0	16.67	16.67	0.0	0.0

Instructor: RNDr. Matej Masný, PhD.

Last changed: 28.06.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-103 | **Course name:** Repetition of mathematics

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 43

abs	n	p	v
93.02	6.98	0.0	0.0

Instructor: doc. PaedDr. Miriam Spodniaková Pfefferová, PhD., Mgr. Martin Hruška, PhD., doc. RNDr. Janka Raganová, PhD., prof. Dr. Boris Tomášik, PhD.

Last changed: 24.08.2020

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-RIS-513 | **Course name:** Rod, identita, spoločnosť

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 223

abs	n	p	v
87.89	12.11	0.0	0.0

Instructor: doc. PhDr. Alžbeta Brozmanová Gregorová, PhD., Mgr. Jana Šolcová, PhD., PhDr. Katarína Kurčíková, PhD., PhDr. Lucia Galková, PhD., doc. Mgr. Lívia Nemcová, PhD., doc. PaedDr. Lenka Rovňanová, PhD., Mgr. Zuzana Heinzová, PhD., Mgr. Martina Kubealaková, PhD., univ. doc., prof. PhDr. Alexandra Bitušíková, CSc., doc. Ing. Kamila Borseková, PhD., PhDr. Kamila Koza Beňová, PhD., RNDr. Elena Kupcová, PhD., Mgr. Lujza Urbancová, PhD., PaedDr. Zuzana Bariaková, PhD.

Last changed: 29.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 12-RSOA	**Course name:** Rozvojová spolupráca a občianska angažovanosť

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 0 / 0
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I., II.

Prerequisites:

Course completion conditions:
a) continuous assessment:
Project Proposal (SlovakAid Template): 0-80 points
b) final assessment:
Project Presentation: 0-20 points

Learning objectives:
Students:
1. understand the fundamental theoretical concepts and terminology related to development cooperation and international development, and understand their interrelationships and systemic connections;
2. are able to apply acquired knowledge when examining specific cases in the fields of development cooperation and international development, interpret findings, and draw relevant conclusions;
3. can critically assess the activities and roles of various actors in these fields, identify problematic aspects, and propose appropriate solutions or alternative approaches;
4. are capable of developing a development project proposal on a selected or assigned topic, applying theoretical knowledge, analytical skills, and the ability to design effective solutions to development challenges.

Brief outline of the course:
1. Terminology, instruments and forms of development assistance implementation, motivations for providing aid, and the economic significance of international development cooperation
2. Introduction to development project management
3. Major development challenges in Africa, Asia, and Latin America
4. Development assistance providers (official donors and emerging donors), international organizations and institutions engaged in development cooperation, and the SDGs
5. The development policy of the European Union
6. The role of the non-governmental organisations and private sector in international development cooperation
7. Development cooperation of the Slovak Republic – historical overview, institutional framework, territorial and sectoral priorities, and key challenges of Slovak development policy
8. Analysis of selected development projects implemented under the SlovakAid
9. Development diplomacy and its practical implementation

10. Aid for Trade, the Business Partnership Programme, and other development cooperation initiatives
11. Development project design and preparation
12. Presentations of development projects

Recommended literature:

ZHAO, J. (2023): International Development Cooperation: Theory, Practice, and Evaluation. ISBN 978-9811258879.
HASLAM, P. A. – SCHAFER, J. – BEAUDET, P. (2021): Introduction to International Development: Approaches, Actors, Issues, and Practice, 4th Edition. ISBN 978-0199036431.
DEVELTERE, P. – HUYSE, H. – VAN ONGEVALLE, J. (2021): International Development Cooperation Today: A Radical Shift Towards a Global Paradigm. ISBN 978-9462702615.
POTTER, R. et al. (2018): Geographies of Development. An Introduction to Development Studies, 4th Edition. ISBN 978-1138794306.
TODARO, M. P. – SMITH, S. C. (2020): Economic Development, 13th Edition. ISBN 978-1292291154.
KINGSBURY, D. et al. (2016): International Development. Issues and Challenges, 3rd Edition. ISBN 978-1-137-42940-7.
MINISTRY OF FOREIGN AND EUROPEAN AFFAIRS OF THE SLOVAK REPUBLIC (2025): Medium-Term Strategy for Development Cooperation of the Slovak Republic for 2025-2030.
Official websites SlovakAid, OECD, United Nations, European Union and others.

Language of instruction:
Slovak, English

Notes:student time load:

Course assessment
The final number of assessed students: 0

abs	n	p	v
0.0	0.0	0.0	0.0

Instructor: doc. PhDr. Martina Bolečeková, PhD.

Last changed: 18.06.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-fpv-505	**Course name:** SW Testing in Automotive
Type, extent and method of instruction: **Form of instruction:** Practical **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26 **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 4.	
Level: I., P	
Prerequisites:	
Course completion conditions:	
Learning objectives:	
Brief outline of the course:	
Recommended literature:	
Language of instruction:	
Notes:student time load:	
Course assessment The final number of assessed students: 17	

abs	n
100.0	0.0

Instructor: Bc. Peter Petiaš
Last changed: 24.01.2024
Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-VAV1-613 | **Course name:** Science and Faith

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 14

abs	n	p	v
28.57	71.43	0.0	0.0

Instructor: prof. ThDr. Pavel Hanes, PhD., Mgr. Benjamin Uhrin, ThD.

Last changed: 17.09.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-507 **Course name:** Selected topics in electrotechnics

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 3

A	B	C	D	E	FX(0)	FX(1)
0.0	100.0	0.0	0.0	0.0	0.0	0.0

Instructor: Mgr. Rudolf Kubík

Last changed: 23.06.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-upp-304 | **Course name:** Selected topics of machines and devices

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 5

Recommended semester/trimester: 3.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 18

A	B	C	D	E	FX(0)	FX(1)
27.78	16.67	22.22	5.56	22.22	5.56	0.0

Instructor: Ing. Martin Kučerka, PhD., univ. doc., prof. Ing. Alena Očkajová, PhD.

Last changed: 10.09.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-143 | **Course name:** Semestral Project

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 163

A	B	C	D	E	FX(0)	FX(1)
42.33	20.25	20.86	8.59	3.68	0.0	4.29

Instructor:

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-104 | **Course name:** Seminar on mathematics 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 37

abs	n	p	v
89.19	10.81	0.0	0.0

Instructor: Mgr. Martin Hruška, PhD.

Last changed: 26.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-205 | **Course name:** Seminar on mathematics 2

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 43

abs	n	p	v
81.4	18.6	0.0	0.0

Instructor:

Last changed: 26.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-110 | **Course name:** Seminar on mathematics 3

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 3.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 19

abs	n	p	v
100.0	0.0	0.0	0.0

Instructor:

Last changed: 26.09.2019

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: D_1_ZpUzUdP_cup	**Course name:** Skills for Success: From University to Practice

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 3., 5.

Level: I.

Prerequisites:

Course completion conditions:
a) Attendance and active participation in classes, with a maximum permitted absence of one 160-minute session – 30%
b) Submission of partial assignments for each thematic area – 10%
c) Final group presentation on a selected topic from the course syllabus, demonstrating the ability to apply the acquired skills to specific real-life situations, including feedback to team members – 60%
If a student does not successfully complete the course in the regular assessment period, they will be required to complete an individual assignment and subsequently present their work in a form determined by the examiner, accounting for 100% of the final assessment.

Learning objectives:
The course focuses on the development of key transferable skills, including soft skills and power skills, required for graduates' successful transition into professional practice in companies, shared service centres, consulting firms, financial institutions and the public sector.
In cooperation with the American Chamber of Commerce in the Slovak Republic, AmCham Slovakia, and participating business entities, the course reflects current employer expectations regarding graduates of economics-oriented study programmes. Particular emphasis is placed on business communication, teamwork, problem-solving, working with information, and decision-making under uncertainty.
Upon successful completion of the course, students will be able to:
• communicate effectively in a professional and multicultural working environment, including communication in English;
• work in teams and contribute to solving practical business-related problems, such as process improvements, customer situations and project-based tasks;
• argue, present proposed solutions and defend their opinions based on data and facts;
• handle feedback, conflict situations and performance pressure in the workplace;
• apply basic principles of critical thinking, decision-making and time management in economic and managerial practice;
• operate effectively in the environment of shared service centres, business service centres and the corporate culture of international companies.

The course was developed in cooperation with the American Chamber of Commerce in the Slovak Republic, AmCham Slovakia, and the Banská Bystrica Self-Governing Region. The Slovak version of the course will be delivered by professional soft-skills lecturers, such as Learning and Development Managers, Education Specialists and Certified Coaches, from companies associated within the Business Service Center Forum, BSCF, of AmCham Slovakia, including Accenture, IBM, GAMO, GlobalLogic, KPMG and potentially other companies.

Brief outline of the course:

Critical thinking and decision-making
• Critical thinking when working with information and data
• Decision-making under uncertainty and risk
• Managerial versus analytical decision-making
• Cognitive biases in economic decision-making
• Short practical case studies based on real company situations
Communication, teamwork and conflict resolution
• Professional and business communication in Slovak and English
• Communication in a multicultural environment
• Team roles and cooperation in projects
• Conflict resolution in teams
• Assertiveness and argumentation
• Simulations of workplace situations
Functioning of companies, shared service centres and remote work
• How business service centres and shared service centres operate
• Employer expectations regarding competencies, behaviour and performance
• Working in international and remote teams
• Corporate culture and “unwritten rules” in companies
Time management, performance and coping with workload
• Time and priority management
• Managing stress and performance pressure
• Work-life balance in practice
• Productivity in project-based environments and under deadlines
• Self-development and personal effectiveness
Feedback, self-reflection and professional development
• Giving and receiving feedback
• Self-reflection and personal strengths and weaknesses
• Working on one’s own development and identifying skill gaps
• Basics of design thinking in the context of solving practical problems
• Final team presentations of practice-oriented solutions

Recommended literature:

Core literature:
1. FISHER, J. 2025. The Next Conversation: Argue Less, Talk More. New York: TarcherPerigee. 2025, 304 s. ISBN: 978-0-593-71872-8.
2. URY, W. 2024. Possible: How We Survive (and Thrive) in an Age of Conflict. New York: Harper Business. 2024, 368 s. ISBN: 978-0-06-328690-0.
3. HELGBIG, K. – NORMAN, M. 2023. The Psychological Safety Playbook: Lead More Powerfully by Being More Human. Vancouver: Page Two Books. 2023, 166 s. ISBN: 978-1-77458-309-8.

4. MILLER, K. Q. – WAHL, S. T. 2023. Business and Professional Communication: KEYS for Workplace Excellence. Thousand Oaks: SAGE Publications. 2023, 456 s. ISBN: 978-1-07182-526-5.
5. BOWMAN, S. 2023. Safe to Great: The New Psychology of Leadership. Figure 1 Publishing. 2023, 160 s. ISBN: 978-1-77327-230-6.
6. KONČITÍKOVÁ, G. 2021. Inspirace Baťa. Zlín: Inspirace Baťa. 2021, 366 s. ISBN: 978-80-908183-0-9.
7. KONČITÍKOVÁ, G. 2024. Inspirace Baťa 2: Růst Tomáše Bati. Zlín: Inspirace Baťa. 2024, 360 s. ISBN: 978-80-908183-3-0.
8. COVEY, S. R. 2004. The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change. New York: Free Press. 2004, 381 s. ISBN: 978-0-7432-6951-3.
9. HAMILTON, C. 2012. Communication for Results: A Guide for Business and the Professions. 9th ed. Boston: Wadsworth Cengage Learning. 2012, 512 s. ISBN: 978-1-111-34145-1.
10. FISHER, R. – URY, W. L. – PATTON, B. 2011. Getting to Yes: Negotiating Agreement Without Giving In. 3rd ed. New York: Penguin Books. 2011, 208 s. ISBN: 978-0-14-311875-6.
11. PATTERSON, K. – GRENNY, J. – McMILLAN, R. – SWITZLER, A. 2011. Crucial Confrontations: Tools for Resolving Broken Promises, Violated Expectations, and Bad Behavior. 2nd ed. New York: McGraw-Hill Education. 2011, 256 s. ISBN: 978-0-07-177132-0.
Supplementary literature:
1. REYNOLDS, G. 2014. Presentation Zen: Simple Ideas on Presentation Design and Delivery. 2nd ed. Berkeley: New Riders. 2014, 288 s. ISBN: 978-0-321-81635-9.
2. WEISSMAN, J. 2009. Presenting to Win: The Art of Telling Your Story. 2nd ed. New York: FT Press. 2009, 256 s. ISBN: 978-0-13-700906-5.
3. BOOHER, D. 1994. Confrontational Communication: Delivering Negative Feedback, Bad News, and Other Straight Talk. New York: Houghton Mifflin. 1994, 224 s. ISBN: 978-0-395-63500-6.
4. STONE, D. – HEEN, S. 2014. Thanks for the Feedback: The Science and Art of Receiving Feedback Well. New York: Viking. 2014, 368 s. ISBN: 978-0-670-02578-9.
The literature will be supplemented by corporate training materials used in internal learning and development activities of the individual companies associated within the Business Service Center Forum, BSCF, of the American Chamber of Commerce in the Slovak Republic.

Language of instruction:
Slovak, English

Notes:student time load:
Total student workload: 90 hours, of which:
Blended learning: lectures, seminars and consultations: 26 hours
Self-study: 34 hours
Preparation for continuous assessment: 10 hours
Preparation for the examination and final assessment: 20 hours

Course assessment
The final number of assessed students: 0

A	B	C	D	E	FX(0)	FX(1)	n
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Instructor: Ing. Michal Mešťan, PhD., MBA

Last changed: 11.05.2026

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-spr-193 | **Course name:** Sociology: practical knowledge of society

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 275

abs	n	p	v
99.27	0.73	0.0	0.0

Instructor: Mgr. Roman Hofreiter, PhD., univ. doc., doc. Mgr. M. A. Ivan Chorvát, CSc.

Last changed: 27.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-247 | **Course name:** Soft Computing

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 48

A	B	C	D	E	FX(0)	FX(1)
27.08	16.67	22.92	4.17	18.75	8.33	2.08

Instructor: doc. Ing. Jarmila Škrinárová, PhD., doc. RNDr. Alžbeta Michalíková, PhD.

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-144 **Course name:** Software Engineering

Type, extent and method of instruction:
Form of instruction: Lecture / Seminar
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 13
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-125/21 and KIN FPV/1d-ain-131/21 and KIN FPV/1d-ain-133/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 161

A	B	C	D	E	FX(0)	FX(1)
29.19	27.95	15.53	8.07	11.8	3.73	3.73

Instructor: doc. PaedDr. Patrik Voštinár, PhD., PaedDr. Mgr. Vladimír Siládi, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-199 | **Course name:** State Exam

Type, extent and method of instruction:
Form of instruction:
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods:
Method of study: combined

Number of credits: 10

Recommended semester/trimester:

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 94

A	B	C	D	E	FX(0)	FX(1)
30.85	20.21	25.53	13.83	8.51	0.0	1.06

Instructor:

Last changed: 15.12.2021

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-113 **Course name:** Team Project 1

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 3.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 61

abs	n	p	v
85.25	14.75	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD., Mgr. Rudolf Kubík, Mgr. Michal Vagač, PhD.

Last changed: 27.08.2015

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-220 | **Course name:** Team Project 2

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 4.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 31

abs	n	p	v
64.52	35.48	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD., Mgr. Rudolf Kubík, Mgr. Michal Vagač, PhD.

Last changed: 27.08.2015

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-124 **Course name:** Team Project 3

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 5.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 21

abs	n	p	v
71.43	28.57	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD., Mgr. Rudolf Kubík, Mgr. Michal Vagač, PhD.

Last changed: 27.08.2015

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-228 **Course name:** Team Project 4

Type, extent and method of instruction:
Form of instruction: Practical
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 6.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 16

abs	n	p	v
93.75	6.25	0.0	0.0

Instructor: PaedDr. Mgr. Vladimír Siládi, PhD., Mgr. Rudolf Kubík, Mgr. Michal Vagač, PhD.

Last changed: 27.08.2015

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-245 | **Course name:** Technologies for Virtual and Augmented Reality

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-115/21 and KIN FPV/1d-ain-131/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 135

A	B	C	D	E	FX(0)	FX(1)
35.56	19.26	13.33	5.93	4.44	14.07	7.41

Instructor: doc. PaedDr. Patrik Voštinár, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-vdsl-01 | **Course name:** The Great Works in World Literature I

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2., 4., 6.

Level: I.

Prerequisites:

Course completion conditions:
The student prepares an essay in which he/she takes a position on the issue discussed.
The final assessment is passed/failed.

Learning objectives:
1. The student will obtain an adequate overview of the origin and functioning of selected representative literary works from several civilizational and cultural areas of ancient literature; will improve in professional terminology.
2. The student will acquire the specific interpretation skills necessary when working with a literary text anchored in a radically different cultural environment, thereby strengthening tolerance towards cultural differences and the will to respect the right to be different.

Brief outline of the course:
The greatest works in ancient Mesopotamia. Sumerian literature, Sumerian-Akkadian synthesis in literature. Ancient Egyptian literature – the greatest works. Ancient Chinese literature; basic Confucian and Taoist texts, old Chinese poetry. Ancient Indian literature - the most important written monuments from the Vedic period and from the so-called historical period, ancient Indian epics. Hebrew (ancient Jewish) literature. The Bible. Ancient Arabic literature; poetry of the pre-Islamic era, the Koran as a religious text and a literary monument. Ancient Greek literature (great works of archaic epic, lyric and drama). Ancient Roman literature, the great works of poets of the classical period (Vergilius, Horatius, Ovidius).

Recommended literature:
1. BURKE, Peter. Kulturní historie. Dokořán, 2011.
2. MACURA, V. a kol.: Slovník světových literárních děl 1. – 2. Praha : Odeon, 1989.
3. ELIADE, M.: Dejiny náboženských predstáv a ideí 1. – 3. Bratislava : Agora, 1995, 1997,
4. 1997.
5. Velké postavy východního myšlení: slovník myslitelů. Uspořádal Ian P. McGreal. Praha :
6. Prostor, 1998.
7. ASSMANN, J.: Kultura a paměť. Písmo, vzpomínka a politická identita v rozvinutých
8. kulturách starověku. Praha : PROSTOR, 2001.
9. Duchovní prameny života: stvoření světa ve starých mýtech a náboženstvích. Praha : Vyšehrad,1997.
10. PUTNA, M. C.: Homér 21, http://www.fhs.cuni.cz/homer21/main.html

11. CANFORA, Luciano: Dějiny řecké literatury
12. CONTE, Gian Biagio: Dějiny římské literatury.

Language of instruction:
Slovak

Notes:student time load:
90 hours, of which 26 hours full-time, 64 hours self-study

Course assessment
The final number of assessed students: 98

abs	n	p	v
98.98	1.02	0.0	0.0

Instructor: PaedDr. Zuzana Bariaková, PhD., prof. PaedDr. Martin Golema, PhD., doc. Ivan Jančovič, PhD., Mgr. Martina Kubealaková, PhD., univ. doc., Mgr. Eva Pršová, PhD., doc. PaedDr. Jozef Tatár, PhD.

Last changed: 19.09.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-geu-306 | **Course name:** The dynamics of the cultural landscape

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 6.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 5

A	B	C	D	E	FX(0)	FX(1)	n
40.0	20.0	0.0	0.0	0.0	20.0	20.0	0.0

Instructor: doc. PaedDr. Bohuslava Hrončeková Gregorová, PhD.

Last changed: 28.06.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-fpv-202 | **Course name:** The planet we live on

Type, extent and method of instruction:
Form of instruction: Lecture
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 2.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 590

A	B	C	D	E	FX(0)	FX(1)
84.41	6.27	2.03	1.02	0.17	6.1	0.0

Instructor: Mgr. Viera Šimonová, PhD.

Last changed: 07.09.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-geu-305 | **Course name:** Trends, methods and exercises in human geography

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 6

A	B	C	D	E	FX(0)	FX(1)	n
83.33	0.0	16.67	0.0	0.0	0.0	0.0	0.0

Instructor: Mgr. Richard Pouš, PhD.

Last changed: 28.06.2022

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-FS1-003 | **Course name:** University folklore ensemble 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 52

abs	n	p	v
96.15	3.85	0.0	0.0

Instructor: Mgr. art. Martin Urban, PhD.

Last changed: 30.03.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica	
Faculty: Faculty of Natural Sciences	
Code: 1d-UKO1-003	**Course name:** Univerzitný komorný orchester 1
Type, extent and method of instruction: **Form of instruction:** Seminar **Course type:** C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses) **Recommended number of periods:** 26 **Method of study:** combined	
Number of credits: 3	
Recommended semester/trimester: 1., 3., 5.	
Level: I.	
Prerequisites:	
Course completion conditions:	
Learning objectives:	
Brief outline of the course:	
Recommended literature:	
Language of instruction:	
Notes:student time load:	

Course assessment

The final number of assessed students: 14

abs	n	p	v
85.71	14.29	0.0	0.0

Instructor: Mgr. Pavel Martinka, PhD.
Last changed: 30.03.2023
Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-SPZ1-003 | **Course name:** Univerzitný spevácky zbor 1

Type, extent and method of instruction:
Form of instruction: Seminar
Course type: C (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 3

Recommended semester/trimester: 1., 3., 5.

Level: I.

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 59

abs	n	p	v
94.92	5.08	0.0	0.0

Instructor: Mgr. Pavel Martinka, PhD.

Last changed: 04.04.2023

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-125 | **Course name:** Web Technologies 1

Type, extent and method of instruction:
Form of instruction: Practical
Course type: A (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 39
Method of study: combined

Number of credits: 6

Recommended semester/trimester: 2.

Level: I., P

Prerequisites:

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 284

A	B	C	D	E	FX(0)	FX(1)
25.7	15.85	15.85	7.39	11.97	15.14	8.1

Instructor: Mgr. Michal Vagač, PhD., doc. PaedDr. Patrik Voštinár, PhD., Mgr. Nataliia Časnochová Zozuk, PhD.

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-233 **Course name:** Web Technologies 2

Type, extent and method of instruction:
Form of instruction: Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 3.

Level: I., P

Prerequisites: KIN FPV/1d-ain-125/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 131

A	B	C	D	E	FX(0)	FX(1)
21.37	19.08	29.01	10.69	10.69	3.05	6.11

Instructor: Ing. Robert Gallas, Mgr. Jozef Siláči

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.

Course Description

University: Matej Bel University in Banská Bystrica

Faculty: Faculty of Natural Sciences

Code: 1d-ain-243 | **Course name:** Web Technologies 3

Type, extent and method of instruction:
Form of instruction: Lecture / Practical
Course type: B (A - Compulsory courses, B - Compulsory elective courses, C - Elective courses)
Recommended number of periods: 13 / 26
Method of study: combined

Number of credits: 4

Recommended semester/trimester: 4.

Level: I., P

Prerequisites: KIN FPV/1d-ain-233/21

Course completion conditions:

Learning objectives:

Brief outline of the course:

Recommended literature:

Language of instruction:

Notes:student time load:

Course assessment
The final number of assessed students: 116

A	B	C	D	E	FX(0)	FX(1)
24.14	17.24	28.45	14.66	10.34	4.31	0.86

Instructor: Ing. Robert Gallas, Mgr. Michal Vagač, PhD., Mgr. Jozef Siláči

Last changed: 22.08.2025

Approved by: doc. Ing. Jarmila Škrinárová, PhD.