Study plan

Name of study plan: 14 80 85 00 DVES MAT 2012 P

Faculty/Institute/Others:

Department:

Branch of study guaranteed by the department: Welcome page

Garantor of the study branch: Program of study: Welcome page Type of study: unknown full-time

Required credits: 116
Elective courses credits: 65
Sum of credits in the plan: 181

Note on the plan: SP12DVES-MUSTR # SP12BVES-EKO-P # první pokus

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 107

The role of the block: P

Code of the group: 12BVP4P

Name of the group: 09 2012 BVES 4.sem prezenční povinné

Requirement credits in the group: In this group you have to gain 22 credits

Requirement courses in the group: In this group you have to complete 5 courses

Credits in the group: 22 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2342005	Quality Control	KZ	2	1P+1C+1L	*	Р
2341014	Technology II.	Z,ZK	5	2P+0C+2L	*	Р

Characteristics of the courses of this group of Study Plan; Code=12BVP4P Name=09 2012 BVES 4.sem prezenční povinné

2342005	Quality Control	KZ	2				
Basic quality control ter	Basic quality control terms, where is quality created, who is responsible for a quality. Basic statistical terms and distributions. Statistical methods: statistical process control, statistical						
sampling. Tools and me	thods for a quality assurance during product lifetime cycle. Standards 9 000 and 14 000, certification of quality control syster	ns.					
2341014	Technology II.	Z,ZK	5				
mechanics of chip formation, cutting processes, finishing operations, non-traditional machining processes. Production rates calculation, machining economics. Automation of processes,							
programming of manufacture. Engineering metrology, Assembly techniques. Introduction to process planing							

Code of the group: 12BV*5P

Name of the group: 12 2012 BVES 5.sem povinné

Requirement credits in the group: In this group you have to gain 11 credits

Requirement courses in the group: In this group you have to complete 3 courses

Credits in the group: 11 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2141204	Introduction to Electrical Engineering for Technology	Z,ZK	4	2P+0C+2L	*	Р
2383001	Fundamentals of Law	Z	2	1P+1C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12BV*5P Name=12 2012 BVES 5.sem povinné

2141204 Introduction to Electrical Engineering for Technology

Elements of electrical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, thyristors, operation amplifiers.

Analogue and digital circuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines. Synchronous machines.

DC-machines

2383001 Fundamentals of Law

Basic orientation in legal system is a necessary part of professional equipment of each expert with university degree. The aim of this course is to provide a view into the Czech Legal Order, particular sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is necessary for students to know our legal institutions, that will be regularly in touch with, especially during their professional career and to learn how to work with the collection of laws. At the same time the course leads students to know some practical habits and processes while putting the law on, especially in domain of contracts and other important legal relationships and to make them ready to prepare professional presentations and to understand basic structures between law and engineering

Code of the group: 12BV*5P-MAT

Name of the group: 14 2012 BVES 5.sem zam MAT povinné

Requirement credits in the group: In this group you have to gain 18 credits

Requirement courses in the group: In this group you have to complete 4 courses

Credits in the group: 18 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2341001	Metrology	Z,ZK	5	2P+0C+2L	*	Р
2331505	Welding Technology	Z,ZK	4	2P+1C	*	Р
2322041	Heat treatment	KZ	4	2P+1C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12BV*5P-MAI Name=14 2012 BVES 5.sem zam MAI povinne							
2341001	Metrology	Z,ZK	5				
Metrology, intergration	Metrology, intergration into quality control, legal metrology, metrology system. Geometrical quantities metrology. Measurement uncertainty. Primary and secondary standarts. Measurement						
in 1, 2, end 3 coordina	in 1, 2, end 3 coordinates. Laserinterferometres and their applications. Geometrical surface properties. Form - and position deviations. Surface structure - roughness, wawiness.						
Measurement automa	tisation.						
2331505	Welding Technology	Z,ZK	4				
2322041	Heat treatment	KZ	4				
Theoretical fundamentals of heat treatment, basic processes of heat and chemical-heat treatment of ferrous and non-ferrous metals, excursion focused on the given topic							

Code of the group: 12BV*6P

Name of the group: 15 2012 BVES 6.sem povinné

Requirement credits in the group: In this group you have to gain 9 credits

Requirement courses in the group: In this group you have to complete 2 courses

Credits in the group: 9 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2331071	Automation of Production Processes	Z,ZK	5	3P+2C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12BV*6P Name=15 2012 BVES 6.sem povinné

2331071	Automation of Production Processes	Z,ZK	5				
Automation of basic tec	Automation of basic technological processes - casting, welding, forming and finishing. Facilities and equipment required to automate offices. Mechanization and automation in iron and						
steel foundries. Automation and robotics of die casting process, including other peripherals. Designing and programming of robotic welding centers. Designing and programming of							
robotic workstations for sheet metal forming. Design of automated forging cells. Design of automated finishing lines.							

Code of the group: 12BV*6P-MAT

Name of the group: 16 2012 BVES 6.sem zam MAT povinné

Requirement credits in the group: In this group you have to gain 22 credits

Requirement courses in the group: In this group you have to complete 5 courses

Credits in the group: 22

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2323993	Bachelor Thesis Jana Sobotová	Z	5	0P+6C	*	Р
2321501	Jana Sobotová	Z,ZK	4	3P+1C	*	Р

2321503	Technical testing of materials Elena Čižmárová	Z,ZK	5	2P+2C+0L	*	Р

Characteristics of the courses of this group of Study Plan: Code=12BV*6P-MAT Name=16 2012 BVES 6.sem zam MAT povinné

2323993	Bachelor Thesis	Z	5
2321501		Z,ZK	4
The			

recently developed materials, their basic characteristics and mechanical properties are listed. Their technological possibilities, design applicability and methods of their designations are also presented.

2321503 Technical testing of materials Z,ZK

Term and definition of properties. Verification of properties in a certified quality management system. Accredited test laboratory and test systems, test standard. Basic mechanical properties and testing the characteristics of metals, polymers, composites and ceramics. Testing of material for the limited state is the basic methods in accordance with the relevant standards. Test of resistance to brittle fracture, fatique, creep. Evaluation of technological properties. Defectoscopic method for detecting defects in the material.

Code of the group: 12DVP1P-KMEN

Name of the group: 00 2012 D kmenové 1. semestr VES prezenční

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0

Note on the group:

12B**1P-KMEN #

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2182019	Chemistry Radek Šulc, Martin Dostál, Vojtěch Bělohlav, Jan Skočilas, Adam Krupica, Filip Randák Radek Šulc Radek Šulc (Gar.)	KZ	3	2P+1C	1	Р
2011021	Constructive Geometry	Z,ZK	6	3P+2C	*	Р
2011056	Mathematics I Radka Keslerová, Marta Hlavová, Jiří Holman, Gejza Dohnal, Marta Čertíková, Vladimír Hric, Nikola Pajerová, Petr Louda, Lukáš Hájek, Radka Keslerová Gejza Dohnal (Gar.)	Z,ZK	8	4P+4C	*	Р
2372041	Computer Support for Study	KZ	3	1P+1C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12DVP1P-KMEN Name=00 2012 D kmenové 1. semestr VES prezenční

2182019 Chemistry ΚZ General chemistry from the point of view of mechanical and process engineering. Physical chemistry forms 2/3 of the course (structure and properties of matter, thermodynamics, phase equilibrium, chemical reactions, reaction engineering), the remaining 1/3 is devoted to organic chemistry (hydrocarbons, polymers) and biochemistry. Laboratory practice is oriented upon the material properties measurement.

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2011021	Constructive Geometry	Z,ZK	6		
The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations.					
2011056	Mathematics I	7 7K	8		

In the course, greater emphasis is placed on the theoretical basis of the concepts discussed and on the derivation of basic relationships and connections between concepts. Students will also get to know the procedures for solving problems with parametric input. In addition, students will gain extended knowledge in some thematic areas: eigennumbers and eigenvectors of a matrix, Taylor polynomial, integral as a limit function, integration of some special functions.

2372041 Computer Support for Study K7 The course introduces students into creating technical and professional documents on computers or Web and into realizing technical computations with the use of computers. Students

gain practical skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical-based WWW page.

Code of the group: 12DVP2P-KMEN

Name of the group: 00 2012 D kmenové 2. semestr VES prezenční

Requirement credits in the group: In this group you have to gain 25 credits

Requirement courses in the group: In this group you have to complete 5 courses

Credits in the group: 25

Note on the group:

12B**2P-KMEN #

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2021041	Physics I.	Z,ZK	7	4P+1L	*	Р
2011062	Matematika II. Radka Keslerová	Z,ZK	8	4P+4C	*	Р
2322029	Materials Science I. Jana Sobotová	KZ	3	2P+1L	2	Р
2012037	Computer Graphics	KZ	3	1P+1C	*	Р
2333017	Surface Treatment	Z	3	1P+1C	*	Р

2131002	Engineering Design II	Z,ZK	4	2P+3C	2	Р
2333038	Fundamentals of Technology I.	Z	3	1P+1C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12DVP2P-KMEN Name=00 2012 D kmenové 2. semestr VES prezenční

2021041 Physics I. Z.ZK

Kinematics and dynamics of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, elastic properties of bodies. Oscillations, waves. Fluid mechanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Conductors, semiconductors, insulators. Magnetic field. Magnetic materials. Laboratories - accuracy of measurements, systematic and random errors, uncertainty of direct and indirect measurements, regression, measurements of 11 various experiments related to the lectures.

2011062 Matematika II. Z,ZK 8

Open and closed set, boundary in E^k. Real function of k-variables. Partial derivatives and differentiability. Gradient and directional derivative. Differential operators div (divergence) and curl (rotation). Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral, Fubini theorem. Transformation of integrals to polar, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Circulation and Green's theorem. A potential vector field, independence of a line integral on the path. Simple smooth surface and surface integral of a scalar function and a vector function. Flow of a vector field through a surface. The Gauss-Ostrogradskij theorem.

2322029 Materials Science I. K7 3 History and present state of materials engineering, overview of technical materials, internal structure of metals, crystal lattices and their defects, deformation, recrystallization and fracture of materials, structure and properties of materials and their testing, fundamentals of thermodynamics, phases and phase transformations, iron-carbon phase diagram.

2012037 **Computer Graphics** 2333017 Surface Treatment 7

Introduction to the surface treatments - branch signification and objects. Principles of corrosion, types and corrosion distribution. Anticorrosive prevention in manufacturing, method anticorrosive prevention. Corrosion testing. Surface pre-treatment. Converse coatings, enamels. Inorganic coatings, electroplating, hot-dip galvanizing. Organic coatings. Ecological

2131002 Engineering Design II

Principles of ISO GPS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface texture, geometrical tolerance, dimensional loops, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice their knowledge from lectures.

2333038 3 Fundamentals of Technology I.

Production processes in engineering production. Technology of engineering production. Materials in engineering. Concepts of steel and cast iron, technical metals. Production of pig iron and steel. Casting: modeling devices, molding materials, molding and castings. Foundry alloys. Overview of basic casting technology. Forming technology. Hot and cold forging. Free and drop forging. Rolling. Production of pipes. Bulk and sheet metal forming. Welding technology. The characteristics of the various types of welding. Fusion welding: Flame welding and arc welding with coated electrodes. Thermal cutting.

Code of the group: 12DVP3P-KMEN

Name of the group: 00 2012 D kmenové 3. semestr redukované pro VES prezenční

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0 Note on the group:

12BV*3P-KMEN-R #

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2021025	Physics II.	Z,ZK	4	1P+2L	3	Р
2011009	Mathematics III Stanislav Kračmar	Z,ZK	5	2P+2C	*	Р
2321039	Materials Science II. Jiří Cejp, Jakub Horník, Jana Sobotová, Elena Čižmárová, Eliška Galčíková, Pavlína Hájková, Jakub Horváth, Stanislav Krum, Vladimír Mára, Jana Sobotová Jana Sobotová (Gar.)	Z,ZK	4	2P+2L	*	Р
2331068	Technology I.	Z,ZK	5	2P+2C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12DVP3P-KMEN Name=00 2012 D kmenové 3. semestr redukované pro VES prezenční

2021025 Z.ZK 1 Physics II. Faraday's law of electromagnetic induction. Maxwell's equations, electromagnetic waves. Light, wave optics, geometrical optics. Quantum properties of electromagnetic waves. Interaction

of radiation with matter. Photoelectric effect. Wave-particle mature of matter. Quantum-mechanical description of particle's motion. Hydrogen atom and periodic system of elements. Spectra, x-rays, ;laser. Band theory of solids, semiconductors. Nucleus, radioactivity, sources of nuclear energy. Laboratories - measurements of 6 experiments related to the lectures.

2011009 Mathematics III Z,ZK 5 An introductory course in ordinary differential equation and infinite series. 2321039 Materials Science II. Z,ZK 4

Fundamentals of metallurgy, iron-carbon alloys and influence of other elements, phase transformations, thermal, combined chemical and thermal and thermo-mechanical processing, technical iron-carbon alloys, non-ferrous metals and their alloys, plastics, structural ceramics, composites, selection of materials.

Z.ZK Technology I. Foundry properties of metals. Treatment. Pouring. Casting solidification. Moulding and core making. Thermal treatment. Plastic deformation. Division of forming processes. Semi-products,

Name of the block: Compulsory elective courses

heating-up. Cutting. Cold and hot forming. Welds. Weldability. Weldment testing. Thermal cutting. Brazing. Surface treatments.

Minimal number of credits of the block: 9

The role of the block: PV

Code of the group: 12BV*4Q-BZJ VES

Name of the group: 11 2012 bakalářské zkoušky z jazyků pro VES

Requirement credits in the group: In this group you have to gain at least 2 credits (at most 10)

Requirement courses in the group: In this group you have to complete at least 1 course (at most 5)

Credits in the group: 2 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and quarantors (qar.)	Completion	Credits	Scope	Semester	Role
2041061	English-Bachelor Exam Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová, Michele Le Blanc Ilona Šimice (Gar.)	Z,ZK	2	0P+2C	*	PV
2041063	French - Bachelor Exam /FME Dušana Jirovská Eliška Vítková Dušana Jirovská (Gar.)	Z,ZK	2	0P+2C	*	PV
2041062	German - Bachelor Exam / FME Jaroslava Kommová, Eliška Vitková, Petr Laurich Jaroslava Kommová Jaroslava Kommová (Gar.)	Z,ZK	2	0P+2C	*	PV
2041065	Russian - Bachelor Exam / FME Hana Volejníková, Dušana Jirovská Eliška Vítková Dušana Jirovská (Gar.)	Z,ZK	2	0P+2C	*	PV
2041064	Spanish - Bachelor Exam / FME Jaime Andrés Villagómez Eliška Vítková Jaime Andrés Villagómez (Gar.)	Z,ZK	2	0P+2C	*	PV

Characteristics of the courses of this group of Study Plan: Code=12BV*4Q-BZJ VES Name=11 2012 bakalářské zkoušky z jazyků pro VES

2041061	English-Bachelor Exam	Z,ZK	2
Mapped to the Common	n European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diffi	culties, to take pa	rt in discussions,
to write a summary, a r	eport and an essay, to read technical texts, to master grammar at advanced level.		
2041063	French - Bachelor Exam /FME	Z,ZK	2
Mapped to the Common	n European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diffi	culties, to take pa	rt in discussions,
to write a summary, a r	eport and an essay, to read technical texts, to master grammar at advanced level.		
2041062	German - Bachelor Exam / FME	Z,ZK	2
Mapped to the Common	n European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diffi	culties, to take pa	rt in discussions,
to write a summary, a r	eport and an essay, to read technical texts, to master grammar at advanced level.		
2041065	Russian - Bachelor Exam / FME	Z,ZK	2
Mapped to the Common	n European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diffi	culties, to take pa	rt in discussions,
to write a summary, a r	eport and an essay, to read technical texts, to master grammar at advanced level.		
2041064	Spanish - Bachelor Exam / FME	Z,ZK	2
Mapped to the Common	n European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diffi	culties, to take pa	rt in discussions,
to write a summary, a r	eport and an essay, to read technical texts, to master grammar at advanced level.		

Code of the group: 12BV*4Q-ZAM

Name of the group: 10 2012 BVES 4.sem zam 1povvol

Requirement credits in the group: In this group you have to gain at least 5 credits (at most 10)

Requirement courses in the group: In this group you have to complete at least 1 course (at most 2)

Credits in the group: 5 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2321067	Technical Application of Materials Stanislav Krum	Z,ZK	5	3P+1C	*	PV

Characteristics of the courses of this group of Study Plan: Code=12BV*4Q-ZAM Name=10 2012 BVES 4.sem zam 1povvol

2321067 | Technical Application of Materials | Z,ZK | 5
Předmět popisuje aplikovatelnost jednotlivých skupin inženýrských materiálů a jejich odpovídající vlastnosti. Rovněž se věnuje aktuálním vývojovým trendům těchto skupin. The subject describes applicability of specific engineering material types and their characteristics. It deals with the current development trends in these materials as well.

Code of the group: 12BV*5Q-OP

Name of the group: 13 2012 BVES 5.sem 1 povvol oborové projekty

Requirement credits in the group: In this group you have to gain at least 2 credits (at most 8)

Requirement courses in the group: In this group you have to complete at least 1 course (at most 4)

Credits in the group: 2

Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2322091	Project Jana Sobotová	KZ	2	0P+2C	*	PV
2332091	Project	KZ	2	0P+2C	*	PV
2342091	Project	KZ	2	0P+2C	*	PV

Characteristics of the courses of this group of Study Plan: Code=12BV*5Q-OP Name=13 2012 BVES 5.sem 1povvol oborové projekty

2322091 Project
On the basis of the preliminary submission of a bachelor thesis the students, under supervision of their supervisors, prepare a review summarizing and evaluating the studied literature with particular emphasis on experimental technologies which can be applied in their bachelor theses. They can also mention a planned experiment or evaluate hitherto obtained knowledge or results.

 2332091
 Project
 KZ
 2

 2342091
 Project
 KZ
 2

 Work on specialized tasks.
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Name of the block: Elective courses Minimal number of credits of the block: 0

The role of the block: V

Code of the group: 12BV**V-ALFA

Name of the group: 02 2012 ALFA volitelné pro VES

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0
Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members)	Completion	Credits	Scope	Semester	Role
202A041	Tutors, authors and guarantors (gar.) Physics I.	ZK	3	0P+0L	*	V
201A021	Constructive Geometry A	ZK	3	0P+0C	*	V
201A056	Mathematics I.A Radka Keslerová	ZK	4	0P+0C	*	٧
201A062	Mathematics II.A Radka Keslerová	ZK	4	0P+0C	*	٧

Characteristics of the courses of this group of Study Plan: Code=12BV**V-ALFA Name=02 2012 ALFA volitelné pro VES

202A041 Physics I.

Kinematics and dynamics of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, elastic properties of bodies. Oscillations, waves. Fluid mechanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Conductors, semiconductors,

waves. Fluid mechanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Conductors, semiconductors, insulators. Magnetic field. Magnetic materials. Laboratories - accuracy of measurements, systematic and random errors, uncertainty of direct and indirect measurements, regression, measurements of 11 various experiments related to the lectures.

201A021	Constructive Geometry A	ZK	3
The subject is focused	on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations.		
201A056	Mathematics I.A	ZK	4
Introduction to linear alg	pebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variable		'
201A062	Mathematics II.A	ZK	4

Open and closed set, boundary in E^k. Real function of k-variables. Partial derivatives and differentiability. Gradient and directional derivative. Differential operators div (divergence) and curl (rotation). Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral, Fubini theorem. Transformation of integrals to polar, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Circulation and Green's theorem. A potential vector field, independence of a line integral on the path. Simple smooth surface and surface integral of a scalar function and a vector function. Flow of a vector field through a surface. The Gauss-Ostrogradskij theorem.

Code of the group: 12B**1V-DOP SEMI

Name of the group: 05 2012 doporučené semináře

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0

Note on the group: Pokud si chce student své dosud získané znalosti (například z matematiky, fyziky, cizích jazyků

atd.) doplnit, může si zapsat některý z volitelných předmětů, které příslušné ústavy pro 1. semestr

(zimní) vypisují. Doporučujeme zejména předměty uvedené v této skupině

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2026016	Physics - Seminar	Z	2	0P+2C	1	V
2016007	Mathematics I Seminar Radka Keslerová, Luděk Beneš, Hynek Řezníček, Olga Majlingová Radka Keslerová Geiza Dohnal (Gar.)	Z	2	0P+2C	1	V

Characteristics of the courses of this group of Study Plan: Code=12B**1V-DOP SEMI Name=05 2012 doporučené semináře

2026016	Physics - Seminar	Z	2
The subject is mainly m	eant for high-school students for repetition of high-school physics.		
2016007	Mathematics I Seminar	Z	2

Code of the group: 12B**1V-DOP ZJK

Name of the group: 06 2012 doporučené základní jazykové kurzy a prezentace

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
2046155	English Conversation Ilona Šimice, Michele Le Blanc Ilona Šimice Michele Le Blanc (Gar.)	Z	2	0P+2C	*	V
2046156	English Conversation Michele Le Blanc	Z	2	0P+2C	L	V
2046071	English - Lower Intermediate Veronika Kratochvilová	Z	2	0P+2C	L	V
2046070	English - Lower Intermediate Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová Michaela Schusová Ilona Šimice (Gar.)	Z	2	0P+2C	z	V
2046074	English - Advanced Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová, Michaela Le Blanc Michaela Schusová Ilona Šimice (Gar.)	Z	2	0P+2C	Z	V
2046075	English - Advanced Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová, Michael Le Blanc Ilona Šimice Ilona Šimice (Gar.)	Z	2	0P+2C	L	V
2046072	English - Upper Intermediate Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová Michaela Schusová Ilona Šimice (Gar.)	Z	2	0P+2C	Z	V
2046073	English - Upper Intermediate Ilona Šimice Ilona Šimice Ilona Šimice (Gar.)	Z	2	0P+2C	L	V
2046068	English - Beginners Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová Michaela Schusová Ilona Šimice (Gar.)	Z	2	0P+2C	Z	V
2046069	English - Beginners Veronika Kratochvílová Ilona Šimice	Z	2	0P+2C	L	V
2046126	Czech Lower Intermediate Jaroslava Kommová	Z	2	0P+2C	L	V
2046125	Czech Lower Intermediate Jaroslava Kommová	Z	2	0P+2C	Z	V
2046118	Czech -Advanced Jaroslava Kommová	Z	2	0P+2C	L	V
2046117	Czech -Advanced Jaroslava Kommová	Z	2	0P+2C	Z	V
2046127	Czech - Upper Intermediate Jaroslava Kommová	Z	2	0P+2C	Z	V
2046128	Czech - Upper Intermediate Jaroslava Kommová	Z	2	0P+2C	L	V
2046119	Czech Language for Beginners I. Jaroslava Kommová	Z	2	0P+2C	Z	V
2046120	Czech Language for Beginners II. Jaroslava Kommová	Z	2	0P+2C	L	V
2046086	French - Lower Intermediate Course Michaela Schusová, Dušana Jirovská Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	z	V
2046087	French - Lower Intermediate Course Dušana Jirovská Dušana Jirovská (Gar.)	Z	2	0P+2C	L	V
2046091	French - Advanced Dušana Jirovská Dušana Jirovská (Gar.)	Z	2	0P+2C	L	V

2046090	French - Advanced Michaela Schusová, Dušana Jirovská, Eliška Vítková Eliška Vítková Eliška	Z	2	0P+2C	Z	V
2046089	Vítková (Gar.) French - Upper Intermediate	Z	2	0P+2C	L	V
	Dušana Jirovská Dušana Jirovská Dušana Jirovská (Gar.)			01 120		V
2046088	French - Upper Intermediate Michaela Schusová, Dušana Jirovská Michaela Schusová (Gar.) Michaela Schusová (Gar.)	Z	2	0P+2C	Z	V
2046084	French - Beginners Michaela Schusová, Dušana Jirovská Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	V
2046085	French - Beginners´ Course Dušana Jirovská Michaela Schusová Dušana Jirovská (Gar.)	Z	2	0P+2C	L	٧
2146060	Indonesian Language Course for Exchange	Z	2	0P+2C	*	V
2146061	Technical Indonesian - Course I.	Z	2	0P+2C	Z	V
2144062	Technical Indonesian - Course II.	Z,ZK	3	1P+2C	L	V
2046078	German - Lower Intermediate Course Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	٧
2046079	German - Lower Intermediate Course Jaroslava Kommová, Eliška Vítková, Petr Laurich Eliška Vítková Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	V
2046083	German - Advanced Course Jaroslava Kommová, Eliška Vítková, Petr Laurich Jaroslava Kommová Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	٧
2046082	German - Advanced Course Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	V
2046081	German - Upper Intermediate Course Jaroslava Kommová, Eliška Vítková, Petr Laurich Eliška Vítková Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	V
2046080	German - Upper Intermediate Course Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	٧
2046076	German - Beginners Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Michaela Schusová Petr Laurich (Gar.)	Z	2	0P+2C	Z	٧
2046077	German - Beginners Jaroslava Kommová, Petr Laurich Eliška Vítková Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	V
2046161	Presentations in English Michaela Schusová	Z	2	0P+2C	*	V
2046166	Presentations in Czech Jaroslava Kommová	Z	2	0P+2C	*	V
2046162	Presentations in German Jaroslava Kommová, Eliška Vítková, Petr Laurich Jaroslava Kommová Jaroslava Kommová (Gar.)	Z	2	0P+2C	*	V
2046164	Presentations in Russian Dušana Jirovská	Z	2	0P+2C	*	V
2046163	Presentations in French language Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	*	V
2046165	Presentations in Spanish Eliška Vitková	Z	2	0P+2C	*	V
2046137	Russian - Lower Intermediate Course Michaela Schusová, Hana Volejníková, Dušana Jirovská, Eliška Vítková Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	٧
2046138	Russian - Lower Intermediate Course Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	V
2046141	Russian - Advanced Michaela Schusová, Hana Volejníková, Dušana Jirovská, Eliška Vítková Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	V
2046142	Russian - Advanced Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	V
2046140	Russian - Upper Intermediate Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	٧
2046139	Russian - Upper Intermediate Michaela Schusová, Hana Volejníková, Dušana Jirovská, Eliška Vítková Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	٧
2046136	Russian - Beginners Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	V
2046135	Russian - Beginners Michaela Schusová, Hana Volejníková, Dušana Jirovská, Eliška Vítková Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	٧
2046099	Spanish - Lower Intermediate Jaime Andrés Villagómez Eliška Vítková Jaime Andrés Villagómez (Gar.)	Z	2	0P+2C	L	V
2046098	Spanish - Lower Intermediate Michaela Schusová, Eliška Vítková, Jaime Andrés Villagómez Eliška Vítková Eliška Vítková (Gar.)	Z	2	0P+2C	Z	٧

2046096	Spanish - Beginners Michaela Schusová, Eliška Vítková, Jaime Andrés Villagómez Eliška Vítková	Z	2	0P+2C	z	V
	Eliška Vítková (Gar.)	_	_	01 120		<u> </u>
046097	Spanish - Beginners Jaime Andrés Villagómez Jaime Andrés Villagómez (Gar.)	Z	2	0P+2C	L	V
haracteristics of	the courses of this group of Study Plan: Code=12B**1V-DOP ZJK	Name=06 20)12 dono	ručené z	ákladní is	zvkové
ırzy a prezentacı		Name=00 Z	712 0000	rucerie 2	akiadili ja	izykove
046155	English Conversation				Z	2
· •	ve skills in speaking on general topics and general technical topics.					
046156	English Conversation /e skills in speaking on general topics and general technical topics.				Z	2
046071	English - Lower Intermediate				Z	2
	n European Framework of Reference Level A2 Aim: Understanding clearly spoken language					
	nd speaking about them. Writing in a simple way about familiar topics. reading and compreh	nension of simple	texts. Impro	ovement of p	rofessional l	
046070 im: Understanding clea	English - Lower Intermediate arly what is spoken about everyday situations which a student meets at school or in his/her	free time and sp	eaking abou	 ut them. Writ	∠ ing in a simp	2 ole way about
-	and comprehension of simple texts. Improvement of professional language. A1 - A2.		ouig upot		g a op	io may about
046074	English - Advanced				Z	2
•	n of spoken English as well as lectures given in English without great difficulties and active ummary, a report, an essay reading and comprehension of popular-scientific and scientific					
•	advanced level. B1 - B2.	articles or texts i	ioni student	S lield of Sil	Jules Williout	. difficulties.
046075	English - Advanced				Z	2
	n European Framework of Reference Level B1 - B2. The aim: comprehension of spoken Eng	•	•	•	•	
	in a discussion. Written and oral skills on advanced level. Ability to write a summary, a repo s from student´s field of studies without difficulties. Grammar structures on advanced level.	ort, an essay. read	aing and cor	nprenensior	or popular-s	scientific and
	English - Upper Intermediate				Z	2
ne aim is to extend lan	guage skills taking into consideration professional English and common professional termine		nsion of star	ndard Englis	h speech and	d conversation
	/ life - at school, at work, during free time, on intermediate level. Broadening grammar know	vledge. A2 - B1.			Z	
046073 apped to the Common	English - Upper Intermediate European Framework of Reference Level B1. The aim is to extend language skills taking in	nto consideration	n professiona	 al English ar		2 professional
• •	nsion of standard English speech and conversation about topics of everyday life - at school, a			ū		
nowledge.						
046068 m: Basic vocabulary o	English - Beginners f everyday life in a written and spoken form. Understanding and use of basic expressions o	of general scientif	ic terminolo	av (professio	Z onal language	2 e) A1
	English - Beginners	general solenti	ic terminolog	gy (proicessic	7	2
	European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a wr	itten and spoken	form. Unde	rstanding an	d use of bas	ic expression
	ninology (professional language).					
046126	Czech Lower Intermediate arly what is spoken about everyday situations which a student meets at school or in his/her	free time and sn	eaking ahoi	t them Writ	Z ing in a simp	2 Ne way ahout
=	and comprehension of simple texts. Improvement of professional language.	nee and ap	caking abou	at thom: vviit	ing in a simp	ic way about
046125	Czech Lower Intermediate				Z	2
-	arly what is spoken about everyday situations which a student meets at school or in his/her	free time and sp	eaking abou	ut them. Writ	ing in a simp	le way about
miliar topics. Heading	and comprehension of simple texts. Improvement of professional language. Czech -Advanced				Z	2
	Common European Framework of Reference: B1- B2 The aim: comprehension of spoken C2	zech as well as le	ectures giver	। n in Czech w		
	discussion. Written and oral skills on advanced level. Ability to write a summary, a report, a	n essay. Reading	and compr	ehension of	popular-scie	ntific and
	s from student's field of studies without difficulties. Grammar structures on advanced level.				7	
046117 omprehension of spok	Czech -Advanced en language as well as lectures in Czech on topics familiar to the student. Communication wit	th native speaker	s. participati	 on in discus:	Z sions. Expres	2 ssina opinion
	vrite an essay or a report. Reading and understanding texts concerning currant issues and		-			3-1-
046127	Czech - Upper Intermediate				Z	2
-	I speech about familiar matters that a student meets at work, at school, during free time, ar ne's opinions and plans. Reading and understanding general and technical texts.	nd talking about t	hese topics.	Ability to de	scribe exper	iences and
046128	Czech - Upper Intermediate				Z	2
	European Framework of Reference Level A2-B1. The aim is to extend language skills taking	ng into considera	ition profess	ional Czech	and commo	
rminology. Compreher nowledge technical lan	nsion of standard Czech speech and conversation about topics of everyday life - at school,	at work, during fi	ree time, on	intermediate	e level. Broad	dening the
046119	Czech Language for Beginners I.				Z	2
	ryday life in a spoken and written form. Understanding and use of basic expressions of gen	eral scientific ter	minology (p	। rofessional ।	1	_
046120	Czech Language for Beginners II.				Z	2
	European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a wr	itten and spoken	form. Unde	rstanding an	d use of basi	ic expressior
general scientific tern 046086	ninology (professional language). French - Lower Intermediate Course				Z	2
	hat is spoken about everyday situations which a student meets at school or in his/her free ti	ime and speaking	g about then	ا n. Writing in a	1	
pics. Reading and con	nprehension of simple texts. Improvement of professional language.	·				
046087	French - Lower Intermediate Course			_	Z	2
anned to the level of C	Common European Framework of Reference: A2 Aim: Understanding clearly what is spoker	n about evervdav	situations v	vnich a stude	ent meets at	school or in
	eaking about them. Writing in a simple way about familiar topics. Reading and comprehens					

his/her free time and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of professional language.

	French - Advanced	l 7	''
2046091 Mapped to the level	ן הופרוכוז - Advanced of Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to		2 student.
	native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a	-	
	opular scientific and technical articles.	3	
2046090	French - Advanced	Z	2
	poken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participati		Expressing
opinions. Written ski	ls. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and t	echnical articles.	
2046089	French - Upper Intermediate	Z	2
	of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students		
during free time, and	talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and underst	anding general and	d technical text
2046088	French - Upper Intermediate	Z	2
	lard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abi	lity to describe exp	eriences and
events, briefly explai	n one's opinions and plans. Reading and understanding general and technical texts.		
2046084	French - Beginners	Z	2
_	y what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. W	riting in a simple w	ay about familia
topics. Reading and	comprehension of simple texts. Improvement of professional language.		
2046085	French - Beginners´ Course	Z	2
• •	of Common European Framework of Reference: A1 Aim: Understanding clearly what is spoken about everyday situations whic		
his/her free time and	speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement	of professional lar	iguage.
2146060	Indonesian Language Course for Exchange	Z	2
Basic of Indonesian	Language for Student Exchange Program to Indonesia		
2146061	Technical Indonesian - Course I.	Z	2
Second part of Indo	nesian Language for Student Exchange Program to Indonesia	•	•
2144062	Technical Indonesian - Course II.	Z,ZK	3
Basic of Indonesian	Language for Student Exchange Program to Indonesia	,	_
2046078	German - Lower Intermediate Course	Z	2
	clearly what is spoken about everyday situations which a student meets in the company or in his/her free time and speaking at	oout them. Writing i	n a simple way
	Reading and comprehension of simple texts. Improvement of professional language.		
2046079	German - Lower Intermediate Course	Z	2
	of Common European Framework of Reference A2 Aim: Understanding clearly spoken language about everyday situations whi	_	
	e and speaking about them. Writing in a simple way about familiar topics. reading and comprehesion of simple texts. Improvement		
2046083	German - Advanced Course		2
	of Common European Framework of Reference: B1- B2 The aim: comprehension of spoken German as well as lectures given	_	_
* *	on in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. Reading and compr		-
scientific articles or t	exts from student's field of studies without difficulties. Grammar structures on advanced level.		
	exts from student's field of studies without difficulties. Grammar structures on advanced level. German - Advanced Course	7	
2046082	German - Advanced Course	Z	2
2046082 Comprehension of s	German - Advanced Course poken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participal	tion in discussions	2
2046082 Comprehension of s opinions. Written ski	German - Advanced Course cooken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participa shilling to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to	tion in discussions echnical articles.	2 . Expressing
2046082 Comprehension of s opinions. Written ski 2046081	German - Advanced Course cooken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participal ls. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course	tion in discussions echnical articles.	2 Expressing
2046082 Comprehension of s opinions. Written ski 2046081 Mapped to the level	German - Advanced Course coken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participal ls. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of	tion in discussions echnical articles. Z comes across at w	2 Expressing 2 ork, at school,
2046082 Comprehension of s opinions. Written ski 2046081 Mapped to the level during free time, and	German - Advanced Course coken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participal is. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding standard speech about familiar topics.	tion in discussions echnical articles. Z comes across at w	2 Expressing 2 ork, at school, d technical text
2046082 Comprehension of sopinions. Written ski 2046081 Mapped to the level during free time, and	German - Advanced Course coken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participal ls. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding German - Upper Intermediate Course	Ton in discussions echnical articles. Z comes across at wanding general and	2 Expressing 2 ork, at school, d technical text 2
2046082 Comprehension of sopinions. Written ski 2046081 Mapped to the level during free time, and 2046080 Understanding stand	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and underst German - Upper Intermediate Course lard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability	Ton in discussions echnical articles. Z comes across at wanding general and	2 Expressing 2 ork, at school, d technical text 2
2046082 Comprehension of sopinions. Written sking 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explain	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts.	tion in discussions echnical articles. Z comes across at wanding general and Z lity to describe exp	2 Expressing 2 ork, at school, d technical text 2 eriences and
2046082 Comprehension of sopinions. Written ski 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explaie	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts. German - Beginners	tion in discussions echnical articles. Z comes across at wanding general and Z lity to describe exp	2 Expressing 2 ork, at school, d technical text 2 eriences and
2046082 Comprehension of soppinions. Written skin 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explain 2046076 Basic vocabulary of	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts. German - Beginners everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (professions)	tion in discussions echnical articles. Z comes across at wanding general and Z lity to describe exp	2 Expressing 2 ork, at school, d technical text 2 eriences and
2046082 Comprehension of sopinions. Written skin 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explain 2046076 Basic vocabulary of the Common Europe	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts. German - Beginners Everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (professions Framework of Reference for Languages A1.	tion in discussions echnical articles. Z comes across at wanding general and Z lity to describe exp	2 Deriver and technical text 2 Deriver and 3
2046082 Comprehension of soppinions. Written skid 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explaid 2046076 Basic vocabulary of the Common Europe 2046077	German - Advanced Course boken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participals. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students of talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts. German - Beginners German - Beginners German - Beginners	Ton in discussions echnical articles. Z comes across at warding general and Z lity to describe exp Z ssional language) I	2 Deriver and 3
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2046082 Comprehension of soppinions. Written skid 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explaid 2046076 Basic vocabulary of the Common Europe 2046077 Mapped to the level general scientific ter 2046161 Preparing students to 2046162 Preparation for prese 2046163 Preparation for prese 2046163 Preparation for prese 2046137 Understanding clear opics. Reading and 2046138 Mapped to the level evel	German - Advanced Course ooken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participa is. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students in talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding general and technical texts. German - Upper Intermediate Course land speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability on one's opinions and plans. Reading and understanding general and technical texts. German - Beginners German - Beginners Common European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding minology (professional language). Presentations in English operations in English operations in English on technical topics, with a possible co-operation with specialized departments. Presentations in German possibly in cooperation with specialized departments. Presentations in Russian enting technical topics in Russian, possibly in cooperation with specialized departments. Presentations in Spanish Presentations in Spanish possibly in cooperation with specialized departments. Presentations in Spanish Presentations in Spanish, possibly in cooperation with specialized departments. Russian - Lower Intermediate Course y what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. W comprehension of simple texts. Improvement of professional language. Russian - Lower Intermediate Course	tion in discussions echnical articles. Z comes across at warding general and Z lity to describe exp Z ssional language) I Z g and use of basic of Z Z Z Z Z Z Z Z Z Lity to describe exp	2 Expressing 2 ork, at school, detechnical texts 2 eriences and 2 t corresponds 2 expressions of 2 2 2 2 2 2 2 ay about familian
2046082 Comprehension of soppinions. Written skill 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explail 2046076 Basic vocabulary of the Common Europe 2046077 Mapped to the level general scientific ter 2046161 Preparing students to 2046166 Preparing students to 2046162 Preparation for prese 2046163 Preparation for prese 2046137 Understanding clear topics. Reading and 2046138 Mapped to the level free time and speaking to the level free time and speaking and 2046138 Mapped to the level free time and speaking and 2046138 Mapped to the level free time and speaking and 2046138 Mapped to the level free time and speaking and 2046138	German - Advanced Course ooken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participa is. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students in talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding and speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abin one's opinions and plans. Reading and understanding general and technical texts. German - Beginners everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (profesional Framework of Reference for Languages A1. German - Beginners Common European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding intology (professional language). Presentations in English or present in English on technical topics, with a possible co-operation with specialized departments. Presentations in German enting technical topics in German, possibly in cooperation with specialized departments. Presentations in Russian enting technical topics in French language enting technical topics in French language enting technical topics in Spanish enting technical topics in Spanish enting technical topics in Spanish, possibly in cooperation with specialized departments. Presentations in Spanish enting technical topics in Spanish, possibly in cooperation with specialized departments. Russian - Lower Intermediate Course of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. Woomprehension of simple texts. Impro	tion in discussions echnical articles. Z comes across at wanding general and Z lity to describe exp Z ssional language) I Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	2 Expressing 2 ork, at school, describing texts 2 eriences and 2 t corresponds 2 expressions of 2 2 2 2 2 2 2 ay about familia
2046082 Comprehension of soppinions. Written skill 2046081 Mapped to the level during free time, and 2046080 Understanding standevents, briefly explain 2046076 Basic vocabulary of the Common Europe 2046077 Mapped to the level general scientific ter 2046161 Preparing students to 2046166 Preparing students to 2046163 Preparation for prese 2046163 Preparation for prese 2046137 Understanding clear topics. Reading and 2046138 Mapped to the level free time and speaking 2046141	German - Advanced Course ooken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participa is. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to German - Upper Intermediate Course of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students in talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding general and technical texts. German - Upper Intermediate Course land speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability on one's opinions and plans. Reading and understanding general and technical texts. German - Beginners German - Beginners Common European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding minology (professional language). Presentations in English operations in English operations in English on technical topics, with a possible co-operation with specialized departments. Presentations in German possibly in cooperation with specialized departments. Presentations in Russian enting technical topics in Russian, possibly in cooperation with specialized departments. Presentations in Spanish Presentations in Spanish possibly in cooperation with specialized departments. Presentations in Spanish Presentations in Spanish, possibly in cooperation with specialized departments. Russian - Lower Intermediate Course y what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. W comprehension of simple texts. Improvement of professional language. Russian - Lower Intermediate Course	tion in discussions echnical articles. Z Z Itity to describe exp Z Sasional language) Z	2 Expressing 2 ork, at school, describing textorial tex

2046142 Russian - Advanced	7	2
	pmprehension of spoken language as well as lectures in Russian on topics familiar to	_
	opinions. Written skills. Ability to write an essay or a report. Reading and understanding	
currant issues and popular scientific and technical articles.	g g g g	,g
2046140 Russian - Upper Intermediate	Z	2
	nderstanding standard speech about familiar matters that a student meets at work, at	_
'''	vents, briefly explain one's opinions and plans. Reading and understanding general ar	
2046139 Russian - Upper Intermediate	Z	2
l '''	work, at school, during free time, and talking about these topics. Ability to describe ex	periences and
events, briefly explain one's opinions and plans. Reading and understanding g	eneral and technical texts.	
2046136 Russian - Beginners	Z	2
	vocabulary of everyday life in a spoken and written form. Understanding and use of ba	asic expressions
of general scientific terminology (professional language)		
2046135 Russian - Beginners	Z	2
Basic vocabulary of everyday life in a spoken and written form. Understanding	and use of basic expressions of general scientific terminology (professional language))
2046099 Spanish - Lower Intermediate	Z	2
Mapped to the level of Common European Framework of Reference A2 Unders	standing clearly what is spoken about everyday situations which a student meets at sc	hool or in his/her
free time and speaking about them. Writing in a simple way about familiar topic	s. Reading and comprehension of simple texts. Improvement of professional language	9.
2046098 Spanish - Lower Intermediate	Z	2
Understanding clearly what is spoken about everyday situations which a studer	nt meets at school or in his/her free time and speaking about them. Writing in a simple v	way about familiar
topics. Reading and comprehension of simple texts. Improvement of profession	al language.	
2046096 Spanish - Beginners	Z	2
Aim:Understanding clearly what is spoken about everyday situations which a s	tudent meets at school or in his/her free time and speaking about them. Writing in a si	mple way about
familiar topics. Reading and comprehension of simple texts. Improvement of pr	ofessional language.	
2046097 Spanish - Beginners	Z	2
Mapped to the Common European Framework of Reference Level A1. Aim: Un	derstanding clearly what is spoken about everyday situations which a student meets a	at school or in
his/her free time and speaking about them. Writing in a simple way about famili	ar topics. Reading and comprehension of simple texts. Improvement of professional la	anguage.

List of courses of this pass:

Code	Name of the course	Completion	Credits
2011009	Mathematics III	Z,ZK	5
	An introductory course in ordinary differential equation and infinite series.		ı
2011021	Constructive Geometry	Z,ZK	6
	The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relation	ons.	l e
2011056	Mathematics I	Z,ZK	8
In the course, grea	ter emphasis is placed on the theoretical basis of the concepts discussed and on the derivation of basic relationships and connection	ns between concep	ts. Students
will also get to know	the procedures for solving problems with parametric input. In addition, students will gain extended knowledge in some thematic areas:	eigennumbers and e	eigenvectors
	of a matrix, Taylor polynomial, integral as a limit function, integration of some special functions.		
2011062	Matematika II.	Z,ZK	8
Open and closed	set, boundary in E^k. Real function of k-variables. Partial derivatives and differentiability. Gradient and directional derivative. Different	tial operators div (d	ivergence)
and curl (rotation). I	Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral,	Fubini theorem. Tra	insformation
	r, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Circulation and Gree		
field, independen	ce of a line integral on the path. Simple smooth surface and surface integral of a scalar function and a vector function. Flow of a vector	or field through a si	urface. The
	Gauss-Ostrogradskij theorem.		•
2012037	Computer Graphics	KZ	3
2016007	Mathematics I Seminar	Z	2
201A021	Constructive Geometry A	ZK	3
	The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relative	ons.	
201A056	Mathematics I.A	ZK	4
	Introduction to linear algebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variable	1	ı
201A062	Mathematics II.A	ZK	4
Open and closed	set, boundary in E^k. Real function of k-variables. Partial derivatives and differentiability. Gradient and directional derivative. Different	tial operators div (d	ivergence)
and curl (rotation). I	Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral,	Fubini theorem. Tra	nsformation
of integrals to pola	r, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Circulation and Gree	n's theorem. A pote	ential vector
field, independen	ce of a line integral on the path. Simple smooth surface and surface integral of a scalar function and a vector function. Flow of a vector	or field through a su	urface. The
	Gauss-Ostrogradskij theorem.		
2021025	Physics II.	Z,ZK	4
•	ectromagnetic induction. Maxwell's equations, electromagnetic waves. Light, wave optics, geometrical optics. Quantum properties of ele	•	
	natter. Photoelectric effect. Wave-particle mature of matter. Quantum-mechanical description of particle's motion. Hydrogen atom and		
	ser. Band theory of solids, semiconductors. Nucleus, radioactivity, sources of nuclear energy. Laboratories - measurements of 6 expe		1
2021041	Physics I.	Z,ZK	7
•	namics of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, elastic pro-	•	
	echanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Co		
insulators. Magnet	ic field. Magnetic materials. Laboratories - accuracy of measurements, systematic and random errors, uncertainty of direct and indire	ect measurements,	regression,
	measurements of 11 various experiments related to the lectures.		

0000010	Dhysica Caminas	7	
2026016	Physics - Seminar The subject is mainly meant for high-school students for repetition of high-school physics.	Z	2
202A041 Kinematics and dy	Physics I. namics of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, elastic pro	ZK operties of bodies	3 . Oscillations,
waves. Fluid m	echanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Co	nductors, semico	nductors,
insulators. Magne	tic field. Magnetic materials. Laboratories - accuracy of measurements, systematic and random errors, uncertainty of direct and indire measurements of 11 various experiments related to the lectures.	ct measurements	s, regression,
2041061	English-Bachelor Exam	Z.ZK	2
	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.	. ,	1
2041062		7.71/	1 0
	German - Bachelor Exam / FME nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.	Z,ZK ties, to take part in	2 n discussions,
0041000		7 71/	2
2041063 Mapped to the Cor	French - Bachelor Exam /FME nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.	Z,ZK ties, to take part in	_
2041064	Spanish - Bachelor Exam / FME	Z.ZK	2
	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.	,	
2041065	Russian - Bachelor Exam / FME	Z,ZK	2
	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul	1 '	. –
0040000	to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.	7	
2046068	English - Beginners cabulary of everyday life in a written and spoken form. Understanding and use of basic expressions of general scientific terminology (r	Z	2
			
2046069 Mapped to the Cor	English - Beginners mmon European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a written and spoken form. Understanding of general scientific terminology (professional language).	Zg and use of basic	2 expressions
2046070	English - Lower Intermediate	7	2
	ng clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. familiar topics. Reading and comprehension of simple texts. Improvement of professional language. A1 - A2.	_	_
2046071	English - Lower Intermediate	Z	2
	Inglish - Lower Intermediate mmon European Framework of Reference Level A2 Aim: Understanding clearly spoken language about everyday situations which a	_	_
	e time and speaking about them. Writing in a simple way about familiar topics, reading and comprehension of simple texts. Improveme		
2046072	English - Upper Intermediate	7	7 2
	about topics of everyday life - at school, at work, during free time, on intermediate level. Broadening grammar knowledge. A2	glish speech and	_
2046073	English - Upper Intermediate	Z	2
	ommon European Framework of Reference Level B1. The aim is to extend language skills taking into consideration professional Engli orehension of standard English speech and conversation about topics of everyday life - at school, at work, during free time, on intermedi	-	
0040074	knowledge.		
2046074	English - Advanced	Z	2
	hension of spoken English as well as lectures given in English without great difficulties and active participation in a discussion. Writte ite a summary, a report, an essay. reading and comprehension of popular-scientific and scientific articles or texts from student's field Grammar structures on advanced level. B1 - B2.		
2046075	English - Advanced	Z	2
Mapped to the C	ommon European Framework of Reference Level B1 - B2. The aim: comprehension of spoken English as well as lectures given in Enpation in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. reading and comprehension in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. reading and comprehension in a discussion. Written and oral skills on advanced level.		at difficulties
2046076	German - Beginners	Z	2
	of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (profession the Common European Framework of Reference for Languages A1.	I	ı
2046077	German - Beginners	Z	2
	vel Common European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding an general scientific terminology (professional language).	_	1
2046078	German - Lower Intermediate Course	Z	2
	about familiar topics. Reading and comprehension of simple texts. Improvement of professional language.	them. Writing in a	1
2046079	German - Lower Intermediate Course	Z	2
	el of Common European Framework of Reference A2 Aim: Understanding clearly spoken language about everyday situations which a e time and speaking about them. Writing in a simple way about familiar topics. reading and comprehesion of simple texts. Improvemen		
2046080 Understanding s	German - Upper Intermediate Course tandard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability	Z to describe exper	2 riences and
2046081	events, briefly explain one's opinions and plans. Reading and understanding general and technical texts. German - Upper Intermediate Course	Z	2
during free time, a	vel of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students con nd talking about these topics. Ability to describe experiences and events, explain one s opinions and plans. Reading and understandi	ng general and te	chnical texts.
	German - Advanced Course of spoken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participation		-
opinions.	Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific	and technical artic	cles.

2046083	German - Advanced Course	Z	2
		_	. –
	el of Common European Framework of Reference: B1- B2 The aim: comprehension of spoken German as well as lectures given in G	U	
and active particip	ation in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. Reading and comprehe	nsion of popular-so	cientific and
	scientific articles or texts from student's field of studies without difficulties. Grammar structures on advanced level.		
2046084	French - Beginners	Z	2
Understanding clea	arly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. Writing	j in a simple way a	bout familiar
	topics. Reading and comprehension of simple texts. Improvement of professional language.		
2046085	French - Beginners' Course	Z	2
	rel of Common European Framework of Reference: A1 Aim: Understanding clearly what is spoken about everyday situations which a	_	1
	ne and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement		
2046086	French - Lower Intermediate Course	Z	2
Understanding cle	arly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. Writing	ງ in a simple way a ^l	bout familiar
	topics. Reading and comprehension of simple texts. Improvement of professional language.		
2046087	French - Lower Intermediate Course	Z	2
	rel of Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which a	_	1
	ne and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement		
2046088	French - Upper Intermediate	Z	2
Understanding st	andard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability	to describe experi	ences and
	events, briefly explain one s opinions and plans. Reading and understanding general and technical texts.		
2046089	French - Upper Intermediate	7	2
	rection Oppor intermediate vel of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students con	_	_
_	nd talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understandi	rig general and tec	
2046090	French - Advanced	Z	2
Comprehension	of spoken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation	n in discussions. Ex	xpressing
	Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific		
2046091		7	2
	French - Advanced		1
	level of Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to		
Communication wi	th native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading and u	understanding texts	concerning
	currant issues and popular scientific and technical articles.		
2046096	Spanish - Beginners	Z	2
	ig clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them.	Writing in a simple	way about
7	familiar topics. Reading and comprehension of simple texts. Improvement of professional language.	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ray about
201222			
2046097	Spanish - Beginners	Z	2
Mapped to the C	common European Framework of Reference Level A1. Aim: Understanding clearly what is spoken about everyday situations which a	student meets at so	chool or in
his/her free tir	ne and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement	of professional lar	nguage.
2046098	Spanish - Lower Intermediate	7	2
	arly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. Writing	ı — n in a simnle way a	-
oridorotariding dio		j iii a oiiiipio way ai	bout idiriilidi
	topics. Reading and comprehension of simple texts. Improvement of professional language.		_
2046099	Spanish - Lower Intermediate	Z	2
Mapped to the leve	el of Common European Framework of Reference A2 Understanding clearly what is spoken about everyday situations which a studer	nt meets at school	or in his/her
free time a	and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of	professional langua	age.
2046117	Czech -Advanced	Z	2
	spoken language as well as lectures in Czech on topics familiar to the student. Communication with native speakers, participation in dis	1	1
		=	ing opinions.
	en skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and t	ecnnical articles.	
2046118	Czech -Advanced	Z	2
Mapped to the leve	el of Common European Framework of Reference: B1- B2 The aim: comprehension of spoken Czech as well as lectures given in Czec	ch without great dif	ficulties and
active participat	ion in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. Reading and comprehens	sion of popular-scie	entific and
	scientific articles or texts from student's field of studies without difficulties. Grammar structures on advanced level.		
0046110		7	_
2046119	Czech Language for Beginners I.	Z	2
	abulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (p		,
2046120	Czech Language for Beginners II.	Z	2
Mapped to the Cor	nmon European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a written and spoken form. Understandin	g and use of basic	expressions
	of general scientific terminology (professional language).		
2046125	Czech Lower Intermediate	Z	2
		_	1
Aim. Understandii	ng clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them.	vviiung in a simple	way about
	familiar topics. Reading and comprehension of simple texts. Improvement of professional language.		
2046126	Czech Lower Intermediate	Z	2
	ng clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them.	Writing in a simple	way about
	familiar topics. Reading and comprehension of simple texts. Improvement of professional language.	•	
2046127	Czech - Upper Intermediate	Z	2
	· ·	_	
Universianding St	andard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability	to describe experi	ences and
	events, briefly explain one's opinions and plans. Reading and understanding general and technical texts.		
2046128	Czech - Upper Intermediate	Z	2
Mapped to the Co	nmon European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration professional Cz	ech and common	professional
1	nprehension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time, on interm	-	·
	knowledge technical language.		J .
0040405		7	
2046135	Russian - Beginners	Z	2
Basic voc	abulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (p	rofessional langua	ige)
2046136	Russian - Beginners	Z	2
Mapped to the lev	el of Common European Framework of Reference: A1 Basic vocabulary of everyday life in a spoken and written form. Understanding	and use of basic ϵ	expressions
	of general scientific terminology (professional language)		•

2046137	Russian - Lower Intermediate Course	Z	2
Understanding clea	arly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. Writing topics. Reading and comprehension of simple texts. Improvement of professional language.	g in a simple way a	bout familiar
2046138	Russian - Lower Intermediate Course	Z	2
	of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a student of Common European Framework of Reference: A2 Understanding Common European Framework of Reference Framework of Refer		
	nd speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of	orofessional langua	-
2046139	Russian - Upper Intermediate andard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability	to describe experi	2
Oriderstanding st	events, briefly explain one's opinions and plans. Reading and understanding general and technical texts.	to describe experi	ences and
2046140	Russian - Upper Intermediate	Z	2
	rel of Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar matters that a student me	ets at work, at sch	ool, during
free time, and talking	ng about these topics. Ability to describe experiences and events, briefly explain one's opinions and plans. Reading and understandi	ng general and ted	hnical texts.
2046141	Russian - Advanced	Z	2
	of spoken language as well as lectures in Russian on topics familiar to the student. Communication with native speakers, participatio Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific		
2046142	Russian - Advanced	7	2
	evel of Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in Russian on to	ppics familiar to the	1
	h native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading and u	-	
	currant issues and popular scientific and technical articles.		1
2046155	English Conversation	Z	2
2046156	Improving communicative skills in speaking on general topics and general technical topics.	7	_
2046156	English Conversation Improving communicative skills in speaking on general topics and general technical topics.	Z	2
2046161	Presentations in English	Z	2
2040101	Preparing students to present in English on technical topics, with a possible co-operation with specialized departments.	_	_
2046162	Presentations in German	Z	2
	Preparation for presenting technical topics in German, possibly in cooperation with specialized departments.	ı	1
2046163	Presentations in French language	Z	2
	Preparation for presenting technical topics in French, possibly in cooperation with specialized departments.		T -
2046164	Presentations in Russian	Z	2
0040405	Preparation for presenting technical topics in Russian, possibly in cooperation with specialized departments.	7	
2046165	Presentations in Spanish Preparation for presenting technical topics in Spanish, possibly in cooperation with specialized departments.	Z	2
2046166	Presentations in Czech	Z	2
2010100	Preparing students to give presentations in English on technical topics, with a possible co-operation with specialized departm	l .	-
2131002	Engineering Design II	Z,ZK	4
Principles of ISO G	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface	Z,ZK texture, geometric	al tolerance,
Principles of ISO G dimensional loo	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the	Z,ZK texture, geometric ir knowledge from	al tolerance, lectures.
Principles of ISO G dimensional loo 2141204	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology	Z,ZK texture, geometric ir knowledge from Z,ZK	al tolerance, lectures.
Principles of ISO G dimensional loo 2141204 Elements of electr	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology ical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, to	Z,ZK texture, geometric ir knowledge from Z,ZK thyristors,operation	al tolerance, lectures. 4 amplifiers.
Principles of ISO G dimensional loo 2141204 Elements of electr	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology	Z,ZK texture, geometric ir knowledge from Z,ZK thyristors,operation	al tolerance, lectures. 4 amplifiers.
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Principles of ISO G dimensional loo 2141204 Elements of electr Analogue and 2144062 2146060	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology ical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, to digital circuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines DC-machines Technical Indonesian - Course II. Basic of Indonesian Language for Student Exchange Program to Indonesia Indonesian Language For Student Exchange Program to Indonesia	Z,ZK texture, geometric ir knowledge from Z,ZK thyristors, operation s. Synchronous ma Z,ZK	al tolerance, lectures. 4 amplifiers. achines.
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Principles of ISO G dimensional loo 2141204 Elements of electr Analogue and 2144062 2146060 2146061 2182019 General chemistr	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology ical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, to digital circuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines DC-machines Technical Indonesian - Course II. Basic of Indonesian Language for Student Exchange Program to Indonesia Indonesian Language for Student Exchange Program to Indonesia Technical Indonesian - Course I. Second part of Indonesian Language for Student Exchange Program to Indonesia Chemistry	Z,ZK texture, geometric ir knowledge from Z,ZK hyristors,operation s. Synchronous ma Z,ZK Z KZ s of matter, thermo	al tolerance, lectures. 4 amplifiers. achines. 3 2 2 2 3 adynamics,
Principles of ISO G dimensional loo 2141204 Elements of electr Analogue and 2144062 2146060 2146061 2182019 General chemistr phase equilibrium	Engineering Design II PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the Introduction to Electrical Engineering for Technology ical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, to digital circuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines DC-machines Technical Indonesian - Course II. Basic of Indonesian Language for Student Exchange Program to Indonesia Indonesian Language Course for Exchange Basic of Indonesian Language for Student Exchange Program to Indonesia Technical Indonesian - Course I. Second part of Indonesian Language for Student Exchange Program to Indonesia Chemistry y from the point of view of mechanical and process engineering. Physical chemistry forms 2/3 of the course (structure and properties not chemical reactions, reaction engineering), the remaining 1/3 is devoted to organic chemistry (hydrocarbons, polymers) and bioche oriented upon the material properties measurement.	Z,ZK texture, geometric ir knowledge from Z,ZK hyristors,operation s. Synchronous ma Z,ZK Z KZ s of matter, thermo mistry. Laboratory	al tolerance, lectures. 4 amplifiers. achines. 3 2 2 2 3 addynamics, practice is
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2322041	Heat treatment	KZ	4
	Treat treatment undamentals of heat treatment, basic processes of heat and chemical-heat treatment of ferrous and non-ferrous metals, excursion for		1
2322091	Project	KZ	2
	preliminary submission of a bachelor thesis the students, under supervision of their supervisors, prepare a review summarizing and e		_
	mphasis on experimental technologies which can be applied in their bachelor theses. They can also mention a planned experiment of	•	
With partioural o	knowledge or results.	ovaluato minorto	o obtained
2323993	Bachelor Thesis	Z	5
2331068	Technology I.	Z,ZK	5
	of metals. Treatment. Pouring. Casting solidification. Moulding and core making. Thermal treatment. Plastic deformation. Division of form	,	-
Touridity properties	heating-up. Cutting. Cold and hot forming. Welds. Weldability. Weldment testing. Thermal cutting. Brazing. Surface treatment	• .	emi-products,
2331071	Automation of Production Processes	Z,ZK	5
	c technological processes - casting, welding, forming and finishing. Facilities and equipment required to automate offices. Mechanizati	,	-
	utomation and robotics of die casting process, including other peripherals. Designing and programming of robotic welding centers. De		
31001 1001101103.71	robotic workstations for sheet metal forming. Design of automated forging cells. Design of automated finishing lines.	signing and prog	ramming or
2331505	Welding Technology	Z.ZK	4
2332091	Project	KZ	2
	·	7	3
2333017	Surface Treatment	_	
	e surface treatments - branch signification and objects. Principles of corrosion, types and corrosion distribution. Anticorrosive preventi rention. Corrosion testing. Surface pre-treatment. Converse coatings, enamels. Inorganic coatings, electroplating, hot-dip galvanizing.		-
anticorrosive prev	aspects of surface treatments.	Organic coalings	. Lcological
222222	,	Z	3
2333038	Fundamentals of Technology I. ses in engineering production. Technology of engineering production. Materials in engineering. Concepts of steel and cast iron, techn		_
,	sting: modeling devices, molding materials, molding and castings. Foundry alloys. Overview of basic casting technology. Forming tech		
	orging. Rolling. Production of pipes. Bulk and sheet metal forming. Welding technology. The characteristics of the various types of weld	0,	
Tree and drop it	welding and arc welding with coated electrodes. Thermal cutting.	iing. r asion word	ing. Flame
2341001	Metrology	Z.ZK	5
	ion into quality control, legal metrology, metrology system. Geometrical quantities metrology. Measurement uncertainty. Primary and seco	_,	_
0,	ordinates. Laserinterferometres and their applications. Geometrical surface properties. Form - and position deviations. Surface structu	•	
111 1, 2, 0110 0 00	Measurement automatisation.	aro rougimiooo, i	warmiooo.
2341014	Technology II.	Z.ZK	5
	ormation, cutting processes, finishing operations, non-traditional machining processes. Production rates calculation, machining econor	,	1
The charles of chip	programming of manufacture. Engineering metrology. Assembly techniques. Introduction to process planing.	mos. Automation	oi processes,
2342005	Quality Control	KZ	2
	ol terms, where is quality created, who is responsible for a quality. Basic statistical terms and distributions. Statistical methods: statisti		_
	npling. Tools and methods for a quality assurance during product lifetime cycle. Standards 9 000 and 14 000, certification of quality co	•	oi, statisticai
2342091	Project	KZ	2
2342091	Work on specialized tasks.	, IXL	2
2372041	Computer Support for Study	KZ	3
	ces students into creating technical and professional documents on computers or Web and into realizing technical computations with t		_
	al skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical computations.	•	
2383001	Fundamentals of Law	7	2
	Fundamentals of Law		
Pagia orientation i	logal system is a pageograph part of professional equipment of each expert with university degree. The sim of this source is to provide	_	_
	n legal system is a necessary part of professional equipment of each expert with university degree. The aim of this course is to provid	le a view into the	Czech Legal
Order, particular s	burces of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is no	le a view into the ecessary for stude	Czech Legal ents to know
Order, particular so our legal institution	ources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is not not specially in touch with, especially during their professional career and to learn how to work with the collection of laws.	le a view into the ecessary for stude At the same time	Czech Legal ents to know the course
Order, particular so our legal institution	burces of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is no	le a view into the ecessary for stude At the same time	Czech Legal ents to know the course

For updated information see http://bilakniha.cvut.cz/en/FF.html Generated: day 2025-11-30, time 04:07.