Study plan

Name of study plan: 15 80 85 00 BVES OBR 2012 P základ

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: 182 Elective courses credits: -1 Sum of credits in the plan: 181 Note on the plan: první pokus

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 171

The role of the block: P

Code of the group: 12B*P*P-TV

Name of the group: 07 2012 bakalá ský t locvik

Requirement credits in the group: In this group you have to gain 3 credits

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

Credits in the group: 3

Note on the group: Letní výcvikový kurz je předmět povinný. Student jej může vykonat kdykoliv v průběhu studia,

avšak v souladu s příslušnými ustanoveními Ústavu tělesné výchovy a sportu ČVUT

3

Code of the group: 12B*P*P-ZT21

Name of the group: 04 2012 prezen ní ZT v po adí 21

Fundamentals of Technology L

Requirement credits in the group: In this group you have to gain 6 credits

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

Credits in the group: 6 Note on the group:

2333038

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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
2333038	Fundamentals of Technology I.	Z	3	1P+1C	*	Р

Characteristics of the courses of this group of Study Plan: Code=12B*P*P-ZT21 Name=04 2012 prezen ní ZT v po adí 21

	i direction tale of rectine egy in	. —	_
Production processes in	engineering production. Technology of engineering production. Materials in engineering. Concepts of steel and cast iron, technology	chnical metals. Pr	oduction of pig
iron and steel. Casting: r	modeling devices, molding materials, molding and castings. Foundry alloys. Overview of basic casting technology. Forming te	echnology. Hot an	d cold forging.
Free and drop forging, R	olling. Production of pipes. Bulk and sheet metal forming. Welding technology. The characteristics of the various types of we	ding. Fusion weld	ding: Flame

welding and arc welding with coated electrodes. Thermal cutting.

Code of the group: 12B-KMEN* VES

Name of the group: 01 2012 souhrn 12B**1P-KMEN a 12B**2P-KMEN Requirement credits in the group: In this group you have to gain 50 credits

Requirement courses in the group: In this group you have to complete 11 courses

Credits in the group: 50 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
2182019	Chemistry Radek Šulc, Martin Dostál, Vojt ch B Iohlav, Stanislav Solna , Jan Sko ilas Radek Šulc Radek Šulc (Gar.)	KZ	3	2P+1C	1	Р
2021041	Physics I.	Z,ZK	7	4P+1L	*	Р
2011021	Constructive Geometry Ivana Linkeová	Z,ZK	6	3P+2C	*	Р
2011056	Mathematics I Radka Keslerová, Marta Hlavová, Ji í Holman, Gejza Dohnal, Marta ertíková, Vladimír Hric, Nikola Pajerová, Petr Louda, Lukáš Hájek, Radka Keslerová Gejza Dohnal (Gar.)	Z,ZK	8	4P+4C	*	Р
2011062	Matematika II. Radka Keslerová	Z,ZK	8	4P+4C	*	Р
2322029	Materials Science I. Jana Sobotová, Eliška Gal íková, Ji í Cejp, Pavlína Hájková, Jan Kr il, Vladimír Mára, Lucie Pilsová, Ta ana Vacková Jana Sobotová Jana Sobotová (Gar.)	KZ	3	2P+1L	2	Р
2012037	Computer Graphics Marta Hlavová, Ji í Holman, Nikola Pajerová, Martin Hanek, Jan Karel, Ivana Linkeová, Jaroslav Cibulka Ivana Linkeová Ivana Linkeová (Gar.)	KZ	3	1P+1C	*	Р
2372041	Computer Support for Study	KZ	3	1P+1C	*	Р
2131002	Engineering Design II Eliška Cézová, Jan Flek, Jan Kanaval, Karel Petr, Martin Dub, Martin Havlí ek, Jan Hoidekr, František Lopot, Roman Uhlí Karel Petr Karel Petr (Gar.)	Z,ZK	4	2P+3C	2	Р

Characteristics of the courses of this group of Study Plan: Code=12B-KMEN* VES Name=01 2012 souhrn 12B**1P-KMEN a 12B**2P-KMEN

2182019 | Chemistry | KZ | 3 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.

2021041 | 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.

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	Z,ZK	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.

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.

Materials Science I. KZ 3
History and present state of materials engineering, overview of technical materials, internal structure of metals, crystal lattices and their defects, deformation, recrystallization and

2372041 | Computer Support for Study
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.

2131002 Engineering Design II

Z,ZK 4

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.

Code of the group: 12BVP3P

Name of the group: 08 2012 BVES 3.sem prezen ní povinné

Requirement credits in the group: In this group you have to gain 31 credits

Requirement courses in the group: In this group you have to complete 7 courses

Credits in the group: 31

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
2021025	Physics II.	Z,ZK	4	1P+2L	3	Р

2011009	Mathematics III Radka Keslerová, Ji í Holman, Gejza Dohnal, Marta ertíková, Vladimír Hric, Jan Valášek, Lud k Beneš, Tomáš Bodnár, Tomáš Neustupa, Stanislav Kra mar Stanislav Kra mar (Gar.)	Z,ZK	5	2P+2C	*	Р
2321039	Materials Science II. Jana Sobotová, Eliška Gal íková, Ji í Cejp, Pavlína Hájková, Jan Kr il, Vladimír Mára, Lucie Pilsová, Ta ana Vacková, Jan Walter, 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=12BVP3P Name=08 2012 BVES 3.sem prezen ní povinné								
2021025	Physics II.	Z,ZK	4					
Faraday's law of electron	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.	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. E	Band theory of solids, semiconductors. Nucleus, radioactivity, sources of nuclear energy. Laboratories - measurements of 6 e	xperiments related	d to the lectures.					
2011009	2011009 Mathematics III							
An introductory course i	n ordinary differential equation and infinite series.		'					
2321039	Materials Science II.	Z,ZK	4					
Fundamentals of metall	urgy, iron-carbon alloys and influence of other elements, phase transformations, thermal, combined chemical and thermal ar	nd thermo-mechar	nical processing,					
technical iron-carbon all	loys, non-ferrous metals and their alloys, plastics, structural ceramics, composites, selection of materials.							
2331068	Technology I.	Z,ZK	5					
Foundry properties of m	Foundry properties of metals. Treatment. Pouring. Casting solidification. Moulding and core making. Thermal treatment. Plastic deformation. Division of forming processes. Semi-products,							
eating-up. Cutting. Cold and hot forming. Welds. Weldability. Weldment testing. Thermal cutting. Brazing. Surface treatments.								

Code of the group: 12BVP4P

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

	2342005	Quality Control	KZ	2						
	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	hods for a quality assurance during product lifetime cycle. Standards 9 000 and 14 000, certification of quality control system	ns.							
2341014 Technology II. Z,ZK										
	nechanics of chip formation, cutting processes, finishing operations, non-traditional machining processes. Production rates calculation, machining economics. Automation of processes,									
	mechanics of chip forma	1 , 1 , 1								

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 Jan Chyský, Lubomír Musálek, Martin Novák Lubomír Musálek Jan Chyský (Gar.)	Z,ZK	4	2P+0C+2L	*	Р
2383001	Fundamentals of Law Václav Pilík Václav Pilík (Gar.)	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 Introduction to Electrical Engineering for Technology

2141204	introduction to Electrical Engineering for rechnology	۷,۷۱۸	-
Elements of electrical ci	rcuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors	s, thyristors,opera	tion amplifiers.
Analogue and digital cire	cuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines.	Synchronous ma	chines.
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-OBR

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

Requirement credits in the group: In this group you have to gain 17 credits

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

Credits in the group: 17 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
2342032	Automation of machine tool programming	KZ	3	1P+2C	*	Р
2341515	Manufacturing process planning	Z,ZK	4	2P+2C	*	Р
2341001	Metrology	Z,ZK	5	2P+0C+2L	*	Р

Characteristics of	the courses of this group of Study Plan: Code=12BV*5P-OBR Name=14 2012 BVES 5.sem	zam OBR po	vinné							
2342032	Automation of machine tool programming KZ 3									
Utilizations of computer	Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC machine tool.									
2341515	Manufacturing process planning	Z,ZK	4							
Objective of the course	n terms of learning outcomes and competences. The aim of the course is to acquaint students with modern approaches and me	thodology of desi	gning machining							
processes with regard t	o minimization of material consumption and economic efficiency of the machining process. Next, introducing students to the o	designing of asse	mbly processes							
with respect to technical	I and organizational conditions. Further, the aim of the subject is to explain the issue of standardization of work with regard to	the type of proce	ess and the type							
of performed activity.										
2341001	Metrology	Z,ZK	5							
Metrology, intergration in	Metrology, intergration into quality control, legal metrology, metrology system. Geometrical quantities metrology. Measurement uncertainty. Primary and secondary standarts. Measurement									
in 1, 2, end 3 coordinate	es. Laserinterferometres and their applications. Geometrical surface properties. Form - and position deviations. Surface struct	ure - roughness,	wawiness.							
Measurement automati	sation.									

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	ı
Automation of basic tech	nnological processes - casting, welding, forming and finishing. Facilities and equipment required to automate offices. Mechan	ization and autom	ation in iron and	ı
steel foundries. Automa	tion and robotics of die casting process, including other peripherals. Designing and programming of robotic welding centers.	Designing and pro	ogramming of	ı

robotic workstations for sheet metal forming. Design of automated forging cells. Design of automated finishing lines.

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

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

rioto 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
2343993	Bachelor thesis	Z	5	0P+6C	*	Р

2341002	Cutting tools	Z,ZK	4	2P+1C	*	Р
2341068	Special machining technology	Z,ZK	5	3P+2C	*	Р

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

2343993 Sources of information in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Principles of research and work

in laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a thesis. 2341002 Z.ZK Cutting tools

Cutting tools characteristics. Cutting materials including heat treatment and surface finish, application fields. Cutting tool geometry, determination and measurement. Cutting tools elements design. Cutting tools design including dimensioning. Cutting tools production. Basic tools groups description and their use (turning tools, milling tools, etc.). Special cutting tools. Grinding, use and maintenance of cutting tools.

2341068 Special machining technology

Z,ZK

Development of cutting material, cutting speed development and consequences on the properties of surface finish. Hard and precision machining, engineering economics and ecology. Influence of surface layer and selecting methods of machining process parameters. New methods of abrasive machining, grinding of ceramics, grinding difficult-materials. Expert, adaptive and intelligent control systems, abrasive processes. Physical methods of machining, manufacturing methods and gear threading, finishing methods. Technology in the aerospace industries, automotive, energy and other areas.

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 11

The role of the block: PV

Code of the group: 12B**1Q-HUM

Name of the group: 03 2012 bakalá ské povinn volitelné humanitární

Requirement credits in the group: In this group you have to gain at least 2 credits (at most 6)

Requirement courses in the group: In this group you have to complete at least 1 course (at most 3)

Credits in the group: 2

Ze skupiny humanitních předmětů nutno j e d e n absolvovat 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
2383009	Communication and Dealing with People Jan Horeic, Vladimír Brdek Jan Horeic Jan Horeic (Gar.)	Z	2	1P+1C	*	PV

Characteristics of the courses of this group of Study Plan: Code=12B**1Q-HUM Name=03 2012 bakalá ské povinn volitelné humanitární 2383009 Communication and Dealing with People

Human communication represents an irreplaceable phenomenon in human activity, as it is present in practically all of his activities. The same applies (with specific modifications) to the activities of managers. So you can't not communicate - you can only communicate badly, well and excellently.

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

Name of the group: 11 2012 bakalá ské zkoušky z jazyk 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:

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
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 Michaela Schusová, Dušana Jirovská Eliška Vítková Dušana Jirovská (Gar.)	Z,ZK	2	0P+2C	*	PV
2041062	German - Bachelor Exam / FME Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Jaroslava Kommová Jaroslava Kommová (Gar.)	Z,ZK	2	0P+2C	*	PV
2041065	Russian - Bachelor Exam / FME Michaela Schusová, Hana Volejníková, Dušana Jirovská Eliška Vítková Dušana Jirovská (Gar.)	Z,ZK	2	0P+2C	*	PV
2041064	Spanish - Bachelor Exam / FME Michaela Schusová, 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 bakalá ské zkoušky z jazyk pro **VES**

2041061	English-Bachelor Exam	Z,ZK	2					
Mapped to the Com	non European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diff	ficulties, to take pai	rt in discussions,					
to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.								
2041063	French - Bachelor Exam /FME	Z,ZK	2					
Mapped to the Com	non European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diff	ficulties, to take pai	rt in discussions,					
to write a summary,	a report and an essay, to read technical texts, to master grammar at advanced level.							
2041062	German - Bachelor Exam / FME	Z,ZK	2					
Mapped to the Com	non European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diff	ficulties, to take pai	rt in discussions,					
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					
Mapped to the Com	non European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diff	ficulties, to take pai	rt in discussions					
to write a summary,	a report and an essay, to read technical texts, to master grammar at advanced level.							
2041064	Spanish - Bachelor Exam / FME	Z,ZK	2					
Mapped to the Com	non European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater diff	ficulties, to take pai	rt in discussions.					
to write a summary.	write a summary, a report 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

P edm t popisuje aplikovatelnost jednotlivých skupin inženýrských materiál a jejich odpovídající vlastnosti. Rovn ž se v nuje aktuálním vývojovým trend m t chto 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 1povvol 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, Ji í Cejp, Pavlína Hájková, Jan Kr il, Vladimír Mára, Ta ana Vacková, Jakub Horník, Ladislav Cvr ek, Elena ižmárová, Jana Sobotová Jana Sobotová (Gar.)	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

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 tas	ks.		

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) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
202A041	Physics I.	ZK	3	0P+0L	*	V
201A021	Constructive Geometry A Ivana Linkeová	ZK	3	0P+0C	*	V
201A056	Mathematics I.A Radka Keslerová	ZK	4	0P+0C	*	V
201A062	Mathematics II.A Radka Keslerová	ZK	4	0P+0C	*	V

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

ſ	202A041	Physics I.	ZK	3			
	Kinematics and dynamic	cs of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, elastic	properties of bod	lies. Oscillations,			
	waves. Fluid mechanics. Temperature and heat transfer. Kinetic theory of gases. Thermodynamics. Electric field, current, conductivity, resistance. Conductors, semiconductors,						
	insulators. Magnetic fiel	d. Magnetic materials. Laboratories - accuracy of measurements, systematic and random errors, uncertainty of direct and inc	lirect measureme	nts, regression,			
	measurements of 11 va	rious experiments related to the lectures.					

201A021	Constructive Geometry A	ZK	3			
The subject is focused	ect 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 al	Introduction to linear algebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variable					
201A062	Mathematics II.A	ZK	4			
0	,					

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 doporu ené seminá e

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	٧
2016007	Mathematics I Seminar Radka Keslerová, Hynek ezní ek, Olga Majlingová Radka Keslerová Gejza Dohnal (Gar.)	Z	2	0P+2C	1	٧

Characteristics of the courses of this group of Study Plan: Code=12B**1V-DOP SEMI Name=05 2012 doporu ené seminá e

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 doporu ené 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	Z	2	0P+2C	*	V
2046156	Ilona Šimice, Michele Le Blanc Ilona Šimice Michele Le Blanc (Gar.) English Conversation	Z	2	0P+2C	L	V
2046071	Ilona Šimice, Michele Le Blanc English - Lower Intermediate	Z	2	0P+2C	_	
2046071	Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová			UP+2C	L	
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, Michele Le Blanc Michaela Schusová Ilona Šimice (Gar.)	Z	2	0P+2C	Z	V
2046075	English - Advanced Ilona Šimice, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová, Michele 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, Michaela Schusová, Hana Volejníková, Veronika Kratochvílová 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 Ilona Šimice, Michaela Schusová, Hana Volejníková, 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	Z	2	0P+2C	Z	V
2046127	Jaroslava Kommová Czech - Upper Intermediate	Z	2	0P+2C	Z	V
2046128	Jaroslava Kommová Czech - Upper Intermediate	Z	2	0P+2C	L	
	Jaroslava Kommová Czech Language for Beginners I.					
2046119	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 Michaela Schusová, Dušana Jirovská Dušana Jirovská (Gar.) Gar.)	Z	2	0P+2C	L	V
2046091	French - Advanced Michaela Schusová, Dušana Jirovská Dušana Jirovská (Gar.)	Z	2	0P+2C	L	V
2046090	French - Advanced Michaela Schusová, Dušana Jirovská, Eliška Vítková Eliška Vítková (Gar.)	Z	2	0P+2C	Z	V
2046089	French - Upper Intermediate Michaela Schusová, Dušana Jirovská Dušana Jirovská (Gar.)	Z	2	0P+2C	L	V
2046088	French - Upper Intermediate Michaela Schusová, Dušana Jirovská Michaela Schusová 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 Michaela Schusová, Dušana Jirovská Michaela Schusová Dušana Jirovská (Gar.)	Z	2	0P+2C	L	V
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	V

2046079	German - Lower Intermediate Course Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Eliška Vítková Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	V
2046083	German - Advanced Course Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Jaroslava Kommová Jaroslava Kommová (Gar.)	Z	2	0P+2C	L	V
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 Michaela Schusová, 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	V
2046076	German - Beginners Michaela Schusová, Jaroslava Kommová, Eliška Vítková, Petr Laurich Michaela Schusová Petr Laurich (Gar.)	Z	2	0P+2C	Z	V
2046077	German - Beginners Michaela Schusová, Jaroslava Kommová, Eliška Vítková, 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 Vítková	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	V
2046138	Russian - Lower Intermediate Course Michaela Schusová, 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 Michaela Schusová, Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	V
2046140	Russian - Upper Intermediate Michaela Schusová, Hana Volejníková, Dušana Jirovská Dušana Jirovská	Z	2	0P+2C	L	V
2046139	Russian - Upper Intermediate Michaela Schusová, Hana Volejníková, Dušana Jirovská, Eliška Vítková Michaela Schusová Michaela Schusová (Gar.)	Z	2	0P+2C	Z	V
2046136	Russian - Beginners Michaela Schusová, 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	V
2046099	Spanish - Lower Intermediate Michaela Schusová, 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	V
2046096	Spanish - Beginners Michaela Schusová, Eliška Vítková, Jaime Andrés Villagómez Eliška Vítková Eliška Vítková (Gar.)	Z	2	0P+2C	Z	V
2046097	Spanish - Beginners Michaela Schusová, Jaime Andrés Villagómez Jaime Andrés Villagómez Jaime Andrés Villagómez (Gar.)	Z	2	0P+2C	L	V

Characteristics of the courses of this group of Study Plan: Code=12B**1V-DOP ZJK Name=06 2012 doporu ené základní jazykové kurzy a prezentace

J			
2046155	English Conversation	Z	2
Improving communication	ve skills in speaking on general topics and general technical topics.		
2046156	English Conversation	Z	2
Improving communication	ve skills in speaking on general topics and general technical topics.		
2046071	English - Lower Intermediate	Z	2
Manned to the Commor	, Furnished Framework of Reference Level A2 Aim: Understanding clearly spoken language about everyday situations which	a student meets	either at school

Mapped to the Common European Framework of Reference Level A2 Aim: Understanding clearly spoken language about everyday situations which a student meets either at school or at 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.

2046070	T=	_	
	English - Lower Intermediate	Z	2
ū	early what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about the	em. writing in a sir	npie way about
•	g and comprehension of simple texts. Improvement of professional language. A1 - A2.	7	
2046074	English - Advanced	Z	2
•	ion of spoken English as well as lectures given in English without great difficulties and active participation in a discussion. Wri		
	summary, a report, an essay. reading and comprehension of popular-scientific and scientific articles or texts from student´s fic n advanced level. B1 - B2.	eia oi studies witht	out difficulties.
		Z	2
2046075	English - Advanced on European Framework of Reference Level B1 - B2. The aim: comprehension of spoken English as well as lectures given in	_	_
	n in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. reading and compre		
	kts from student's field of studies without difficulties. Grammar structures on advanced level.	cherision of popula	i solontino ana
2046072	English - Upper Intermediate	Z	2
	nguage skills taking into consideration professional English and common professional terminology. Comprehension of standar	_	-
	ay life - at school, at work, during free time, on intermediate level. Broadening grammar knowledge. A2 - B1.	a Englion opocolii c	
2046073	English - Upper Intermediate	Z	2
	on European Framework of Reference Level B1. The aim is to extend language skills taking into consideration professional Er	nglish and commo	n professional
	ension of standard English speech and conversation about topics of everyday life - at school, at work, during free time, on interr	•	•
knowledge.			
2046068	English - Beginners	Z	2
Aim: Basic vocabulary	of everyday life in a written and spoken form. Understanding and use of basic expressions of general scientific terminology (p	professional langua	age). A1
2046069	English - Beginners	Z	2
Mapped to the Comm	on European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a written and spoken form. Understar	nding and use of b	asic expressions
of general scientific te	rminology (professional language).		
2046126	Czech Lower Intermediate	Z	2
Aim: Understanding c	early what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about the	em. Writing in a sir	nple way about
familiar topics. Readir	g and comprehension of simple texts. Improvement of professional language.		
2046125	Czech Lower Intermediate	Z	2
Aim: Understanding o	early what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about the	em. Writing in a sir	nple way about
familiar topics. Readir	g and comprehension of simple texts. Improvement of professional language.		
2046118	Czech -Advanced	Z	2
Mapped to the level o	Common European Framework of Reference: B1- B2 The aim: comprehension of spoken Czech as well as lectures given in	Czech without grea	at difficulties and
active participation in	a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. Reading and compreher	nsion of popular-so	cientific and
scientific articles or te	xts from student's field of studies without difficulties. Grammar structures on advanced level.		
2046117	Czech -Advanced	Z	2
Comprehension of spe	ken language as well as lectures in Czech on topics familiar to the student. Communication with native speakers, participation in	n discussions. Expi	ressing opinions
Written skills. Ability to	write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and technical a		
2046127	Czech - Upper Intermediate	Z	2
-	rd speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abil	lity to describe exp	eriences and
	one's opinions and plans. Reading and understanding general and technical texts.	,	
2046128	Czech - Upper Intermediate	Z	2
	on European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration professional		
=-	ension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time, on inte	rmediate level. Bro	adening the
knowledge technical I		_	
2046119	Czech Language for Beginners I.	Z	2
-	veryday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (profes		
2046120	Czech Language for Beginners II.	Z	2
• •	on European Framework of Reference Level A1 Aim: Basic vocabulary of everyday life in a written and spoken form. Understan	nding and use of b	asic expressions
	rminology (professional language).		
2046086	French - Lower Intermediate Course	Z	2
Understanding clearly	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
		9	
	omprehension of simple texts. Improvement of professional language.		
2046087	French - Lower Intermediate Course	Z	2
2046087 Mapped to the level o	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which	Z h a student meets	at school or in
2046087 Mapped to the level on his/her free time and	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement	Z h a student meets of professional lar	at school or in nguage.
2046087 Mapped to the level on his/her free time and a 2046091	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced	Z h a student meets of professional lar	at school or in nguage.
2046087 Mapped to the level o his/her free time and 2046091 Mapped to the level o	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to	Z h a student meets of professional lar Z opics familiar to the	at school or in aguage. 2 estudent.
2046087 Mapped to the level on his/her free time and 2046091 Mapped to the level on Communication with the second communicatio	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a	Z h a student meets of professional lar Z opics familiar to the	at school or in aguage. 2 estudent.
2046087 Mapped to the level on his/her free time and 2046091 Mapped to the level of Communication with recurrant issues and po	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a coular scientific and technical articles.	Z h a student meets of professional lar Z opics familiar to the	at school or in nguage. 2 e student. texts concerning
2046087 Mapped to the level on his/her free time and second with the level of the l	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a coular scientific and technical articles. French - Advanced	Z h a student meets of professional lar Z opics familiar to the and understanding	at school or in inguage. 2 2 student. texts concerning
2046087 Mapped to the level on his/her free time and second with the level of the l	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a coular scientific and technical articles. French - Advanced Oken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation	Z h a student meets of professional lar Z oppics familiar to the and understanding Z on in discussions.	at school or in inguage. 2 student. texts concerning
2046087 Mapped to the level o his/her free time and 2046091 Mapped to the level o Communication with recurrant issues and po 2046090 Comprehension of spopinions. Written skills	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a coular scientific and technical articles. French - Advanced Sken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to	Z h a student meets of professional lar Z popics familiar to the and understanding Z on in discussions. I echnical articles.	at school or in inguage. 2 e student. texts concerning 2 Expressing
2046087 Mapped to the level of his/her free time and 2046091 Mapped to the level of Communication with recurrant issues and potential companions. Written skills 2046089	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a cular scientific and technical articles. French - Advanced Sken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to French - Upper Intermediate	Z h a student meets of professional lar Z opics familiar to the and understanding Z on in discussions. I echnical articles. Z	at school or in inguage. 2 2 student. texts concerning 2 Expressing
2046087 Mapped to the level on his/her free time and communication with recurrant issues and possible comprehension of spopinions. Written skills 2046089 Mapped to the level on the level	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a cular scientific and technical articles. French - Advanced Shen language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to a French - Upper Intermediate Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar topics, that a students of	Z h a student meets of professional lar Z opics familiar to the and understanding Z on in discussions. echnical articles. Z comes across at w	at school or in inguage. 2 2 2 student. texts concerning 2 Expressing 2 ork, at school,
2046087 Mapped to the level of his/her free time and second 2046091 Mapped to the level of Communication with recurrant issues and possible 2046090 Comprehension of spopinions. Written skills 2046089 Mapped to the level of during free time, and	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to attive speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a cular scientific and technical articles. French - Advanced Oken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to French - Upper Intermediate Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar topics, that a students calking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding alout these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding alout these topics.	Z h a student meets of professional lar Z opics familiar to the and understanding Z on in discussions. echnical articles. Z comes across at w	at school or in inguage. 2 e student. texts concerning 2 Expressing 2 ork, at school, d technical texts
2046087 Mapped to the level of his/her free time and second 2046091 Mapped to the level of Communication with recurrant issues and possible 2046090 Comprehension of spopinions. Written skills 2046089 Mapped to the level of during free time, and 2046088	French - Lower Intermediate Course Common European Framework of Reference: A2 Aim: Understanding clearly what is spoken about everyday situations which speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement French - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in French on to ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a cular scientific and technical articles. French - Advanced Oken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to alking 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 ternance of the proper intermediate. French - Upper Intermediate	Z h a student meets of professional lar Z opics familiar to the and understanding Z on in discussions. I echnical articles. Z comes across at w anding general and Z	at school or in inguage. 2 e student. texts concerning 2 Expressing 2 ork, at school, d technical texts
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2046085	French - Beginners' Course	Z	2
	Common European Framework of Reference: A1 Aim: Understanding clearly what is spoken about everyday situations which		
	peaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement	1	
2146060 Basic of Indonesian La	Indonesian Language Course for Exchange anguage for Student Exchange Program to Indonesia	Z	2
2146061	Technical Indonesian - Course I.	Z	2
Second part of Indone	sian Language for Student Exchange Program to Indonesia	'	
2144062	Technical Indonesian - Course II.	Z,ZK	3
	anguage for Student Exchange Program to Indonesia	7	
2046078 Aim: Understanding cl	German - Lower Intermediate Course early what is spoken about the company or in his/her free time and speaking at	Z Z	2 n a simple way
	leading and comprehension of simple texts. Improvement of professional language.	, o at the other training in	a op.oa,
2046079	German - Lower Intermediate Course	Z	2
	Common European Framework of Reference A2 Aim: Understanding clearly spoken language about everyday situations whi		
	and speaking about them. Writing in a simple way about familiar topics. reading and comprehesion of simple texts. Improvement	ent of professional	
2046083 Mapped to the level of	German - Advanced Course Common European Framework of Reference: B1- B2 The aim: comprehension of spoken German as well as lectures given	_	2 great difficultie
* *	n in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay. Reading and compa		-
scientific articles or te	tts from student's field of studies without difficulties. Grammar structures on advanced level.		
2046082	German - Advanced Course	Z	2
	ken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participa . Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and t		Expressing
2046081	German - Upper Intermediate Course	Z	2
	Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students		
during free time, and t	alking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and underst	anding general and	technical tex
2046080	German - Upper Intermediate Course	Z	. 2
-	rd speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abi one's opinions and plans. Reading and understanding general and technical texts.	lity to describe exp	eriences and
2046076	German - Beginners	Z	2
	eryday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (profe		_
he Common Europea	n Framework of Reference for Languages A1.		
2046077	German - Beginners	Z	2
	ommon European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding	and use of basic e	expressions of
general scientific term 2046161	nology (professional language). Presentations in English	Z	2
	present in English on technical topics, with a possible co-operation with specialized departments.	2	2
2046166	Presentations in Czech	Z	2
Preparing students to	give presentations in English on technical topics, with a possible co-operation with specialized departments.	' '	
2046162	Presentations in German	Z	2
	ting technical topics in German, possibly in cooperation with specialized departments.		
2046164 Preparation for presen	Presentations in Russian ring technical topics in Russian, possibly in cooperation with specialized departments.	Z	2
2046163	Presentations in French language	Z	2
	ting technical topics in French, possibly in cooperation with specialized departments.		_
2046165	Presentations in Spanish	Z	2
Preparation for presen	ting technical topics in Spanish, possibly in cooperation with specialized departments.	'	
2046137	Russian - Lower Intermediate Course	Z	2
	what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about them. W Imprehension of simple texts. Improvement of professional language.	riting in a simple wa	ay about famil
opics. Reading and co	Russian - Lower Intermediate Course	Z	2
	Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations which a st		_
ree time and speaking	about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of profe	essional language.	
2046141	Russian - Advanced	Z	2
	sken language as well as lectures in Russian on topics familiar to the student. Communication with native speakers, participa		Expressing
2046142	Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and to Russian - Advanced	Z	2
	Russian - Advanced Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in Russian on	1	
	ative speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading a		
currant issues and por	oular scientific and technical articles.		
2046140	Russian - Upper Intermediate	Z	2
	Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar matters that a student		_
	about these topics. Ability to describe experiences and events, briefly explain one's opinions and plans. Reading and underst Russian - Upper Intermediate	anding general and	technical tex
20/16130	Russian - Opper intermediate rd speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Abi		-
		,	
	one´s opinions and plans. Reading and understanding general and technical texts.		
Understanding standa	Russian - Beginners	Z	2
Understanding standa events, briefly explain 2046136 Wapped to the level of	Russian - Beginners Common European Framework of Reference: A1 Basic vocabulary of everyday life in a spoken and written form. Understand		
Understanding standa events, briefly explain 2046136 Mapped to the level of	Russian - Beginners		

2046099	Spanish - Lower Intermediate	Z	2			
Mapped to the level of C	common European Framework of Reference A2 Understanding clearly what is spoken about everyday situations which a stu	dent meets at sch	nool 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 profe	ssional language.				
2046098	Spanish - Lower Intermediate	Z	2			
Understanding 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 con	nprehension of simple texts. Improvement of professional language.					
2046096	Spanish - Beginners	Z	2			
Aim:Understanding clea	rly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about thei	m. Writing in a sim	nple way about			
familiar topics. Reading and comprehension of simple texts. Improvement of professional language.						
2046097	Spanish - Beginners	Z	2			
Mapped to the Common European Framework of Reference Level A1. Aim: Understanding clearly what is spoken about everyday situations which a student meets at school or in						
his/her free time and sp	nis/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.					

List of courses of this pass:

An introductory course in ordinary differential equation and infinite series. 2011021 The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations. 2011056 Mathematics I S. Z, ZK 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. Student will also get to know the procedures for solving problems with parametric input. In addition, students will gain extended involvedge in some thematic areas: eigennumbers and eigenvector of a matrix, Taylor polymonial, integral as a limit function, integration of some special functions. 2011062 Real function of the variables. Partial derivatives and differentiability, Gradent and directional derivative. Differential operators div (divergence) and curl (rotation, Punction) quite mitplicity, Local and global (= abackde) extenses and cultiferentiability, Gradent and directional derivative. Differential operators div (divergence) and curl (rotation, Punction) quite mitplicity, Local and global (= abackde) extenses and sufficientiability. Gradent and directional derivative. Differential operators div (divergence) and curl (rotation). Punction gives implicitly, Local and global (= abackde) extenses of a function from variables. Double integral, volume (=triple) integral, Fubri interiorm. Transformatic 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 and valcor function. Flow of a vector field through a surface. The Gauss-Categorabak's theorem. 2012037 Comparticitive Geometry A ZK 3 2016007 Mathematics II. A Comparticitive Geometry A ZK 3 2016007 Mathematics II. A Mathematics II. A Mathematics II. A Introduction to linear algebra, analytic geometry of	Code	Name of the course	Completion	Credits
Constructive Geometry The subject is focused on geometric objects in the space - curves, surfaces and solidis and their properties and mutual relations.	2011009		Z,ZK	5
2011066 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. Student will also get to know the procedures for solving problems with parametric input. In addition, students will gain extended knowledge in some thematic areas: eigenrumbers and eigenvector of a matrix. Taylor polynomial, integral as a limit function, integral on a similar transformatic management of the procedures for solving problems with parametric input. In addition, students will gain extended knowledge in some thematic areas: eigenrumbers and eigenvector of a matrix. Taylor polynomial, integral as a limit function, integral or a special functions. 2011062 Open and closed set, boundary in E*K. Real function of k-variables. Partial derivatives and differentially. Gradient and directional derivative. Differential operators of (cheroperator) of nice partials to polar, cylindrical and spherical coordinates. A simple smooth surface and surface 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-Catrogradskij theorem. 2012037 Computer Graphics KZ 3. 2016007 Mathematics I. Seminar Z 2. 201A021 Constructive Geometry A The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations. 201A056 Mathematics I.A Mathematics I.A Mathematics I.A A 201A062 Mathematics I.A Mathematics II.A Mathematics II.A A 201A063 Mathematics II.A A 201A064 Mathematics II.A A 201A065 Mathematics II.A A 201A066 Mathematics II.A A 201A067 Five scalar A 201A068 Mathematics II.A A 201A068 Mathematics II.A A 201A069 Mathematics II.A A 201A069 Physics II. A 201A06	2011021	Constructive Geometry		6
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Constructive Geometry A The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations.	2012037	Computer Graphics	KZ	3
The subject is focused on geometric objects in the space - curves, surfaces and solids and their properties and mutual relations. 2K 4 Anthomatics I.A 2K 4 Introduction to linear algebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variables. 2D1A062	2016007	Mathematics I Seminar	Z	2
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Introduction to linear algebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variable 201A062	201A056	Mathematics I.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 curi (rotation), Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral, Fubini theorem. Transformatic of integrals to polar, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Flow of a vector field through a surface. The Gauss-Ostrogradskij theorem. 2021025 Physics II. Z,ZK 4 Faraday's law of electromagnetic induction. Maxwell's equations, electromagnetic waves. Light, wave optics, geometrical optics. Quantum properties of electromagnetic waves. Interactic 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 lecture 2021041 Physics I. Z,ZK 7 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. Oscillation 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. 2026016 Physics is mainly meant for high-school physics. 202A041 Physics is mainly meant for high-school physics. 202A0501 Physics is mainly meant for high-school physics. 202A061 Physics is mainly meant for high-school physics. 202A061 Physics	'	Introduction to linear algebra, analytic geometry of straight lines and planes in E3, calculus of functions of one variable		ı
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 curi (rotation), Function given implicitly. Local and global (= absolute) extremes of a function of more variables. Double integral, volume (=triple) integral, Fubini theorem. Transformatic of integrals to polar, cylindrical and spherical coordinates. A simple smooth curve and line integral of a scalar and vector function. Flow of a vector field through a surface. The Gauss-Ostrogradskij theorem. 2021025 Physics II. Faraday's law of electromagnetic induction. Maxwell's equations, electromagnetic waves. Light, wave optics, geometrical optics. Quantum properties of electromagnetic waves. Interactic 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 lecture 2021041 Physics I. Z,ZK 7 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. Oscillation 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. 202A041 Physics - Seminar The subject is mainly meant for high-school physics. 202A041 Physics I. YK 3 Kinematics and dynamics of a particle motion. Principle of conservation of energy. System of particles, centre of mass. Rigid body. Continuum, e	201A062	Mathematics II A	7K	4
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Mapped to the Common European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficulties, to take part in discussion to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level. 2041062 German - Bachelor Exam / FME Z,ZK 2	2041061		7 7K	2
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2041063	French - Bachelor Exam /FME	Z,ZK	2
Mapped to the Con	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul	ties, to take part in o	discussions,
	to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.		
2041064	Spanish - Bachelor Exam / FME	Z,ZK	2
Mapped to the Con	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul	ties, to take part in o	discussions,
	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
Mapped to the Con	nmon European Framework Level B2. The aim is to understand spoken language and lectures on technical topics without greater difficul	ties, to take part in o	discussions,
	to write a summary, a report and an essay, to read technical texts, to master grammar at advanced level.		
2046068	English - Beginners	Z	2
Aim: Basic voo	abulary of everyday life in a written and spoken form. Understanding and use of basic expressions of general scientific terminology (p	professional langua	age). A1
2046069	English - Beginners	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. Understanding	g and use of basic	expressions
	of general scientific terminology (professional language).		
2046070	English - Lower Intermediate	Z	2
Aim: Understandir	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. A1 - A2.		
2046071	English - Lower Intermediate	Z	2
Mapped to the Co	mmon European Framework of Reference Level A2 Aim: Understanding clearly spoken language about everyday situations which a	student meets eithe	er at school
or at his/her free	time and speaking about them. Writing in a simple way about familiar topics. reading and comprehension of simple texts. Improveme	nt of professional I	anguage.
2046072	English - Upper Intermediate	Z	2
The aim is to exten	d language skills taking into consideration professional English and common professional terminology. Comprehension of standard Er	iglish speech and c	onversation
	about topics of everyday life - at school, at work, during free time, on intermediate level. Broadening grammar knowledge. A2	- B1.	
2046073	English - Upper Intermediate	Z	2
	pmmon European Framework of Reference Level B1. The aim is to extend language skills taking into consideration professional Engli		
	rehension of standard English speech and conversation about topics of everyday life - at school, at work, during free time, on intermedi		
	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		
lovoi. 7 lointy to W	Grammar structures on advanced level. B1 - B2.	or ordanoo wirrour	amounioo.
2046075	English - Advanced	7	2
	pommon European Framework of Reference Level B1 - B2. The aim: comprehension of spoken English as well as lectures given in En	_	
	pation in a discussion. Written and oral skills on advanced level. Ability to write a summary, a report, an essay reading and comprehen	-	
and delive particip	scientific articles or texts from student's field of studies without difficulties. Grammar structures on advanced level.	ision of popular so	ionano ana
2046076	German - Beginners	7	2
	f everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific terminology (profession	_	'
Baolo Vocabalary c	the Common European Framework of Reference for Languages A1.	ia languago, it oon	rooporido to
2046077	German - Beginners	7	2
	rel Common European Framework of Reference A1 Basic vocabulary of everyday life in a written and spoken form. Understanding an	_	-
mapped to the let	general scientific terminology (professional language).	a acc of bacic onp.	
2046078	German - Lower Intermediate Course	Z	2
	g clearly what is spoken about everyday situations which a student meets in the company or in his/her free time and speaking about	_	. – .
7 tim. Onderstandii	about familiar topics. Reading and comprehension of simple texts. Improvement of professional language.	thom: writing in a	Simple way
2046079	German - Lower Intermediate Course	Z	2
	German - Lower Intermediate Course	_	
	e time and speaking about them. Writing in a simple way about familiar topics, reading and comprehesion of simple texts. Improvemen		
		7	
2046080	German - Upper Intermediate Course	<u> </u>	2
Uniderstanding st	andard speech about familiar matters that a student meets at work, at school, during free time, and talking about these topics. Ability events, briefly explain one's opinions and plans. Reading and understanding general and technical texts.	to describe experie	ences and
0040004			
2046081	German - Upper Intermediate Course	Z	2
	vel of Common European Framework of Reference:A2 - B1 Understanding standard speech about familiar topics, that a students com-		
	nd talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understandi	ng general and tech	
2046082	German - Advanced Course		2
	of spoken language as well as lectures in German on topics familiar to the student. Communication with native speakers, participatio		1
	Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific		
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	_	
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.	T	_
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	ງ in a simple way at	bout familiar
	topics. Reading and comprehension of simple texts. Improvement of professional language.		
2046085	French - Beginners´ Course	Z	2
	vel of Common European Framework of Reference: A1 Aim: Understanding clearly what is spoken about everyday situations which a		
his/her free tin	ne and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement	of professional lan	iguage.
2046086	French - 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	in a simple way ab ي	bout familiar
	tonics. Reading and comprehension of simple toyts. Improvement of professional language		

Apped to the level of Common European Framework of Reference: A2, Aim: Understanding clearly what is spoken about everyday situation his/her free time and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. In 2046088 French - Upper Intermediate Understanding standard speach about familiar matters that a student meets at work, at school, during free time, and talking about these to events, briefly explain one's opinions and plane. Reading and understanding general and technical text. Prench - Upper Intermediate Common European Framework of Reference: A2 - B1 Understanding standard speech about similar topics, that a student meets at work. As school, during free time, and talking about these topics. Ability to describe experiences and events, explain one's opinions and plane. Reading and understanding standard speech about similar topics, that a student free from the topics and plane. Reading and understanding texts concerning currant issues and popular Comprehension of spoken language as well as fectures in French on topics familiar to the student Communication with native speakers, opinions. Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and technical articles. 2046091 French - Advanced Spanish - Beginners Spanish - Lower Intermediate Spanish - Beginners Spanish - Lower Intermediate Spanish - Beginners Spanish - Lower Intermediate Spanish - Beginners Spanish - Lower Intermediate Spanish - Spanish - Spanish - Spanish - Spanish - Spanish - Spanish Begin Begin Begi	provement of professional Z ics. Ability to describe exp is. Z dents comes across at warderstanding general and Z articipation in discussions scientific and technical at Z ich and the compact of the c	I language. 2 periences and 2 periences. 2 periences and 2 periences and 2 periences and 2 periences and 2 periences. 2 periences and 2 periences are a periences and 2 periences are a periences and 2 periences are a per
Understanding standard speech about familiar matters that a student meets at work, at school, during free time, and talking about these to events, briefly explain one's opinions and plains. Reading and understanding general and technical to events, briefly explain one's opinions and plains. Reading and understanding general and technical to events the level of Common European Framework of Reference.24. 28. It Understanding standard speech about familiar topics, that a st during free time, and talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding standard speech about familiar topics, that a st during free time, and talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and understanding texts concerning currant issues and popular concerning currant issues and appeals. 2046091	ics. Ability to describe exposes. Z dents comes across at waterstanding general and Z articipation in discussions scientific and technical at Z ench on topics familiar to ding and understanding to ding and understanding to Z out them. Writing in a simple water a student meets a zerovement of professional Z em. Writing in a simple water a student meets at scheement of professional land Z	periences and 2 pork, at school, technical texts 2 s. Expressing riticles. 2 the student. exts concerning 2 at school or in I language. 2 ay about familia 2 pool or in his/heiguage. 2 pessing opinions s.
Understanding standard speech about familiar matters that a student meets at work, at school, during free time, and talking about these top werents, briefly explain one's opinions and plans. Reading and understanding general and technical technic	dents comes across at water across at water and ing general and articipation in discussions scientific and technical at a crowement of professional across at water at student meets at schement of professional land a student meets at schement a standard and a student meets at schement and a student meets at sc	periences and periences and periences and periences and periences and periences and periences are periences. 2
Apped to the level of Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar topics, that a st buring free time, and talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and to 2046090 French - Advanced Comprehension of spoken language as well as lectures in French on topics familiar to the student. Communication with native speakers, proprintors. Written skills, Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular Mapped to the level of Common European Framework of Reference: B1 - B2 Comprehension of spoken language as well as lectures in French - Advanced French and the standard standar	dents comes across at water the desired and th	ork, at school, technical text: 2 s. Expressing riticles. 2 the student. exts concerning a particle way about a particle way about familia a particle way about
Mapped to the level of Common European Framework of Reference A2 - B1 Understanding standard speech about familiar topics. It has understanding standard speech about familiar topics, take speakers, popinions. Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular 2046091 French - Advanced Mapped to the level of Common European Framework of reference B1- B2 Comprehension of spoken language as well as lectures in French on topics familiar to the student. Communication with native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific and technical articles. 2046096 Spanish - Beginners Aim: Understanding clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking a familiar topics. Reading and comprehension of simple texts. Improvement of professional language. 2046097 Spanish - Beginners Aim: Understanding clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking a Spanish - Beginners Aim: Understanding clearly what is spoken about everyday situations which as tudent 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. 2046098 Spanish - Lower Intermediate Mapped to the Common European Framework of Reference A2 Understanding clearly what is spoken about everyday situations which as tudent 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. 2046099 Spanish - Lower Intermediate Mapped to the level of Common European Framework of Reference A2 Understanding dearly what is spoken about them. Writing in a simpl	dents comes across at water dents comes across at water dents and the scientific and technical and across accientific and technical and accient dents and technical and accient dents and technical and accient dents and technical and the scient dents are considered as a student meets at a scient dents and technical dents are considered as a student meets at scholar dents and technical dents are considered as a student meets at scholar dents and the scientific dents are considered as a student meets at scholar dents are considered as a scholar dents are considered	ork, at school, technical text: 2 s. Expressing riticles. 2 the student. exts concerning a particle way about a particle way about familia a particle way about
Journing free time, and talking about these topics. Ability to describe experiences and events, explain one's opinions and plans. Reading and u. 2046090 French - Advanced Comprehension of spoken language as well as lectures in French on topics familiar to the student. Communication with native speakers, popinions. Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular Scientific and technical articles. ZO46091 French - Advanced Mapped to the level of Common European Framework of reference. Bt - BZ Comprehension of spoken language as well as lectures in Ficonomunication with native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Res currant issues and popular scientific and technical articles. ZO46096 Spanish - Beginners AmmUnderstanding clearly what is spoken about everyday situations which a student meets at school or in hisher free time and speaking a familiar topics. Reading and comprehension of simple texts. Improvement of professional language. ZO46097 Spanish - Beginners Mapped to the Common European Framework of Reference Level A1. Aim: Understanding clearly what is spoken about everyday situation hisher free time and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of professional anguage. ZO46099 Spanish - Lower Intermediate Mapped to the level of Common European Framework of Reference & Understanding clearly what is spoken about everyday situations which a student meets at school or in hisher free time and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Improvement of professional anguage as well as lectures in Czech no topics familiar to the student. Communication with native speakers, particip with the level of Common European Framework of Reference & Understanding clearly what is spoken about teveryday situations	derstanding general and Z articipation in discussions scientific and technical at Z ench on topics familiar to diing and understanding to Z out them. Writing in a sime Z which a student meets a provement of professional Z em. Writing in a simple was a student meets at scheement of professional land Z	technical texts 2 s. Expressing rticles. 2 the student. exts concerning 2 nple way about 2 at school or in I language. 2 ay about familia 2 cool or in his/heaguage. 2 essing opinions s.
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Aim: Understanding clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking a familiar topics. Reading and comprehension of simple texts. Improvement of professional language. 2046127	out them. Writing in a sin	ıple way abou
familiar topics. Reading and comprehension of simple texts. Improvement of professional language. 2046127	Z	2
Understanding standard speech about familiar matters that a student meets at work, at school, during free time, and talking about these to events, briefly explain one's opinions and plans. Reading and understanding general and technical text. 2046128 Czech - Upper Intermediate Wapped to the Common European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration profet terminology. Comprehension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time knowledge technical language. 2046135 Russian - Beginners Basic vocabulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific term. Russian - Beginners	out them. Writing in a sin	nple way abou
events, briefly explain one's opinions and plans. Reading and understanding general and technical text. Czech - Upper Intermediate Mapped to the Common European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration profet terminology. Comprehension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time knowledge technical language. 2046135 Russian - Beginners Basic vocabulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific term 2046136 Russian - Beginners	Z	2
Czech - Upper Intermediate Mapped to the Common European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration profet terminology. Comprehension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time knowledge technical language. 2046135 Russian - Beginners Basic vocabulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific term 2046136 Russian - Beginners		periences and
Mapped to the Common European Framework of Reference Level A2-B1. The aim is to extend language skills taking into consideration profeterminology. Comprehension of standard Czech speech and conversation about topics of everyday life - at school, at work, during free time knowledge technical language. 2046135 Russian - Beginners Basic vocabulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific term. Russian - Beginners	<u></u> Z	2
2046135 Russian - Beginners Basic vocabulary of everyday life in a spoken and written form. Understanding and use of basic expressions of general scientific term 2046136 Russian - Beginners	ssional Czech and comm	on profession
2046136 Russian - Beginners	inology (professional land	2
	Trology (professional lang	guage) 2
Mapped to the level of Common European Framework of Reference: A1 Basic vocabulary of everyday life in a spoken and written form. Und of general scientific terminology (professional language)		l l
Russian - Lower Intermediate Course Judgestanding clearly what is spoken about everyday situations which a student meets at school or in his/her free time and speaking about the	erstanding and use of bas	2 ay about famili
topics. Reading and comprehension of simple texts. Improvement of professional language.	Z	
Russian - Lower Intermediate Course Mapped to the level of Common European Framework of Reference: A2 Understanding clearly what is spoken about everyday situations whi	Z em. Writing in a simple wa	2
free time and speaking about them. Writing in a simple way about familiar topics. Reading and comprehension of simple texts. Impro 2046139 Russian - Upper Intermediate	zem. Writing in a simple wa	
Understanding standard speech about familiar matters that a student meets at work, at school, during free time, and talking about these top events, briefly explain one's opinions and plans. Reading and understanding general and technical textures.	Z em. Writing in a simple wa Z h a student meets at schement of professional lan	guage.
2046140 Russian - Upper Intermediate	Em. Writing in a simple ware. Z h a student meets at schement of professional lan Z ics. Ability to describe exp	nguage.
Mapped to the level of Common European Framework of Reference: A2 - B1 Understanding standard speech about familiar matters that a	Em. Writing in a simple ware. Z h a student meets at schement of professional lan Z ics. Ability to describe exp	nguage.

2046141	Russian - Advanced	Z	2
	of spoken language as well as lectures in Russian on topics familiar to the student. Communication with native speakers, participation		
	Written skills. Ability to write an essay or a report. Reading and understanding texts concerning currant issues and popular scientific	and technical articl	
2046142	Russian - Advanced	Z	2
1	evel of Common European Framework of reference: B1 - B2 Comprehension of spoken language as well as lectures in Russian on to	-	
Communication wi	th native speakers, participation in discussions. Expressing opinions. Written skills. Ability to write an essay or a report. Reading and ucurrant issues and popular scientific and technical articles.	inderstanding texts	concerning
2046155	English Conversation	Z	2
2040100	Improving communicative skills in speaking on general topics and general technical topics.	_	_
2046156	English Conversation	Z	2
2010100	Improving communicative skills in speaking on general topics and general technical topics.	_	_
2046161	Presentations in English	Z	2
	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.	_	_
2046163	Presentations in French language	Z	2
	Preparation for presenting technical topics in French, possibly in cooperation with specialized departments.	1	'
2046164	Presentations in Russian	Z	2
	Preparation for presenting technical topics in Russian, possibly in cooperation with specialized departments.		'
2046165	Presentations in Spanish	Z	2
	Preparation for presenting technical topics in Spanish, possibly in cooperation with specialized departments.		'
2046166	Presentations in Czech	Z	2
	Preparing students to give presentations in English on technical topics, with a possible co-operation with specialized departm	ents.	
2131002	Engineering Design II	Z,ZK	4
Principles of ISO G	PS (Geometrical Products Specification). Students will get critical knowledge about ISO system of limits and fits, tolerancing, surface	texture, geometric	al tolerance,
dimensional loc	ps, tolerancing of angles and cones, tolerancing of threads. Integral part of course is a project where students apply and practice the	ir knowledge from	lectures.
2141204	Introduction to Electrical Engineering for Technology	Z,ZK	4
	ical circuits, analysis of electrical circuits as DC and AC. El. Power and Energy. Principle and typical parameters diodes, transistors, t		
Analogue and	digital circuits. AC el. curcuits. Electrical power and energy. Calculation, measurement, power factor. Transformer. Induction machines	s. Synchronous ma	achines.
0444000	DC-machines	7.71	
2144062	Technical Indonesian - Course II.	Z,ZK	3
04.40000	Basic of Indonesian Language for Student Exchange Program to Indonesia	7	
2146060	Indonesian Language Course for Exchange Basic of Indonesian Language for Student Exchange Program to Indonesia	Z	2
2146061	Technical Indonesian - Course I.	Z	2
2140001	Second part of Indonesian Language for Student Exchange Program to Indonesia		2
2182019	Chemistry	KZ	3
	Therristry y from the point of view of mechanical and process engineering. Physical chemistry forms 2/3 of the course (structure and properties)	I	_
	n, chemical reactions, reaction engineering), the remaining 1/3 is devoted to organic chemistry (hydrocarbons, polymers) and bioche		-
,	oriented upon the material properties measurement.	,,	
2321039	Materials Science II.	Z,ZK	4
	netallurgy, iron-carbon alloys and influence of other elements, phase transformations, thermal, combined chemical and thermal and tl		processing,
	technical iron-carbon alloys, non-ferrous metals and their alloys, plastics, structural ceramics, composites, selection of mater	ials.	
2321067	Technical Application of Materials	Z,ZK	5
	aplikovatelnost jednotlivých skupin inženýrských materiál a jejich odpovídající vlastnosti. Rovn ž se v nuje aktuálním vývojovým tren	•	The subject
	bes applicability of specific engineering material types and their characteristics. It deals with the current development trends in these		
2322029	Materials Science I.	KZ	3
1	ent state of materials engineering, overview of technical materials, internal structure of metals, crystal lattices and their defects, defo	=	
	erials, structure and properties of materials and their testing, fundamentals of thermodynamics, phases and phase transformations, in		
2322091	Project project proje	KZ	2
	preliminary submission of a bachelor thesis the students, under supervision of their supervisors, prepare a review summarizing and of mphasis on experimental technologies which can be applied in their bachelor theses. They can also mention a planned experiment of the properties of	-	
with particular c	knowledge or results.	i evaluate milierto	obtained
2331068	Technology I.	Z,ZK	5
	of metals. Treatment. Pouring. Casting solidification. Moulding and core making. Thermal treatment. Plastic deformation. Division of forn		
	heating-up. Cutting. Cold and hot forming. Welds. Weldability. Weldment testing. Thermal cutting. Brazing. Surface treatmen		
2331071	Automation of Production Processes	Z,ZK	5
	c technological processes - casting, welding, forming and finishing. Facilities and equipment required to automate offices. Mechanizat		
steel foundries. A	utomation and robotics of die casting process, including other peripherals. Designing and programming of robotic welding centers. Designing and programming of robotic welding centers.	esigning and progr	amming of
	robotic workstations for sheet metal forming. Design of automated forging cells. Design of automated finishing lines.		_
2332091	Project	KZ	2
2333038	Fundamentals of Technology I.	Z	3
· ·	ses in engineering production. Technology of engineering production. Materials in engineering. Concepts of steel and cast iron, technology of engineering production.		
	sting: modeling devices, molding materials, molding and castings. Foundry alloys. Overview of basic casting technology. Forming technology and casting production of pipes. Bulk and sheet metal forming. Wolding technology. The characteristics of the various types of well-		
riee and drop fo	orging. Rolling. Production of pipes. Bulk and sheet metal forming. Welding technology. The characteristics of the various types of wel welding and arc welding with coated electrodes. Thermal cutting.	uing. Fusion Weldir	ıy: rıame
2341001		Z,ZK	5
	Metrology ion into quality control, legal metrology, metrology system. Geometrical quantities metrology. Measurement uncertainty. Primary and sect		
1	ordinates. Laserinterferometres and their applications. Geometrical surface properties. Form - and position deviations. Surface struct	-	
III I. Z. end a ca	iordinales. Lasennilenerometres and their applications. Geometrical sunace properties, Form - and position deviations, somace struct		

	Cutting tools	Z,ZK	4
Cutting tools ch	aracteristics. Cutting materials including heat treatment and surface finish, application fields. Cutting tool geometry, determination and	measurement. C	utting tools
elements design	. Cutting tools design including dimensioning. Cutting tools production. Basic tools groups description and their use (turning tools, milling	ng tools, etc.). Sp	ecial cutting
	tools. Grinding, use and maintenance of cutting tools.		
2341014	Technology II.	Z,ZK	5
mechanics of chip	formation, cutting processes, finishing operations, non-traditional machining processes. Production rates calculation, machining econor	nics. Automation	of processes,
	programming of manufacture. Engineering metrology. Assembly techniques. Introduction to process planing.		
2341068	Special machining technology	Z,ZK	5
Development	of cutting material, cutting speed development and consequences on the properties of surface finish. Hard and precision machining, e	ngineering econo	mics and
ecology.Influenc	ce of surface layer and selecting methods of machining process parameters. New methods of abrasive machining, grinding of ceramics	s, grinding difficul	t-materials.
Expert, adaptive	and intelligent control systems, abrasive processes. Physical methods of machining, manufacturing methods and gear threading, finis	hing methods. Te	chnology in
	the aerospace industries, automotive, energy and other areas.		
2341515	Manufacturing process planning	Z,ZK	4
Objective of the co	ourse in terms of learning outcomes and competences. The aim of the course is to acquaint students with modern approaches and metho	dology of designi	ng machining
	egard to minimization of material consumption and economic efficiency of the machining process. Next, introducing students to the des		
with respect to ter	chnical and organizational conditions. Further, the aim of the subject is to explain the issue of standardization of work with regard to the	e type of process	and the type
	of performed activity.		
2342005	Quality Control	KZ	2
	trol terms, where is quality created, who is responsible for a quality. Basic statistical terms and distributions. Statistical methods: statist		rol. statistical
	ampling. Tools and methods for a quality assurance during product lifetime cycle. Standards 9 000 and 14 000, certification of quality co	•	,
		nilioi systems.	
2342032	Automation of machine tool programming	KZ	3
2342032		KZ	3
2342032	Automation of machine tool programming	KZ	3
	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma	KZ chine tool.	
	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project	KZ chine tool.	
2342091 2343993	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks.	KZ chine tool. KZ	2 5
2342091 2343993	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis	KZ chine tool. KZ Z inciples of resear	2 5
2342091 2343993	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Pr	KZ chine tool. KZ Z inciples of resear	2 5
2342091 2343993 Sources of inform 2372041	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Pr in laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study	KZ chine tool. KZ Z inciples of resear	2 5 ch and work
2342091 2343993 Sources of inform 2372041 The course introdu	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Pr in laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput	2 5 ch and work 3 ers. Students
2342091 2343993 Sources of inform 2372041 The course introdu	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Pr in laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study uces students into creating technical and professional documents on computers or Web and into realizing technical computations with the study of t	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput	2 5 ch and work 3 ers. Students
2342091 2343993 Sources of inform 2372041 The course introdugain practic 2383001	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Prin laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study uces students into creating technical and professional documents on computers or Web and into realizing technical computations with to call skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical Fundamentals of Law	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput cal-based WWW Z	2 5 cch and work 3 ers. Students page. 2
2342091 2343993 Sources of inform 2372041 The course introde gain practice 2383001 Basic orientation	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Prin laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study suces students into creating technical and professional documents on computers or Web and into realizing technical computations with total skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical soft Law in legal system is a necessary part of professional equipment of each expert with university degree. The aim of this course is to provide	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput cal-based WWW Z e a view into the	2 5 ch and work 3 ers. Students page. 2 Czech Legal
2342091 2343993 Sources of inform 2372041 The course introdugain practic 2383001 Basic orientation Order, particular s	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Prin laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study uces students into creating technical and professional documents on computers or Web and into realizing technical computations with to call skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical Fundamentals of Law	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput cal-based WWW Z e a view into the eccessary for stud	2 5 ch and work 3 ers. Students page. 2 Czech Legal ents to know
2342091 2343993 Sources of inform 2372041 The course introdugain practic 2383001 Basic orientation Order, particular sour legal instituti	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Prin laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study uces students into creating technical and professional documents on computers or Web and into realizing technical computations with the call skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical formal soof Law in legal system is a necessary part of professional equipment of each expert with university degree. The aim of this course is to provide sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is not sources in the course is to provide sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is not sources in the course is to provide sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is not sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations.	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput cal-based WWW Z e a view into the ecessary for stud At the same time	2 5 ch and work 3 ers. Students page. 2 Czech Legal ents to know e the course
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2342091 2343993 Sources of inform 2372041 The course introdugain practic 2383001 Basic orientation Order, particular sour legal instituti	Automation of machine tool programming Utilizations of computer technique for preparation of NC programs for lathe and milling machinery. Utilizations of probes on CNC ma Project Work on specialized tasks. Bachelor thesis nation in the field. Databases and corporate literature. Normalization. Search activity. News from the field of engineering technology. Prin laboratories. The principles of work safety in technological devices. Work on specialized tasks related to the focus of a these Computer Support for Study uces students into creating technical and professional documents on computers or Web and into realizing technical computations with total skills by creating an essay in a text editor, by realizing technical computations with a spreadsheet calculator, and by creating technical system is a necessary part of professional equipment of each expert with university degree. The aim of this course is to provide sources of law and system of law (branch of law), using tutorials, lectures, specialised literature and significant legal regulations. It is no ions, that will be regularly in touch with, especially during their professional career and to learn how to work with the collection of laws. know some practical habits and processes while putting the law on, especially in domain of contracts and other important legal relation to prepare professional presentations and to understand basic structures between law and engineering	KZ chine tool. KZ Z inciples of researsis. KZ he use of comput cal-based WWW Z e a view into the ecessary for stud At the same time	2 5 5 ch and work 3 ers. Students page. 2 Czech Legal ents to know e the course
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