Study plan

Name of study plan: Electrical Engineering, Power Engineering and Management - Electrical Engineering and Management

Faculty/Institute/Others: Faculty of Electrical Engineering

Department:

Branch of study guaranteed by the department: Welcome page

Garantor of the study branch:

Program of study: Electrical Engineering, Power Engineering and Management

Type of study: Bachelor full-time

Required credits: 178
Elective courses credits: 2
Sum of credits in the plan: 180

Note on the plan:

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 133

The role of the block: P

Code of the group: 2018_BEEMBAP Name of the group: Bachelor Project

Requirement credits in the group: In this group you have to gain 15 credits Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 15 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
BBAP15	Bachelor thesis	Z	15	15s	L,Z	Р

Characteristics of the courses of this group of Study Plan: Code=2018_BEEMBAP Name=Bachelor Project

		_	 •		
BBAP15	Bachelor thesis			Z	15

Code of the group: 2018 BEEMBBE

Name of the group: Safety of the bachelor's studies

Requirement credits in the group:

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

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
BEZB	Safety in Electrical Engineering for a Bachelor's Degree Ivana Nová, Radek Havlí ek, Vladimír K la Radek Havlí ek Vladimír K la (Gar.)	Z	0	2BP+2BC	Z,L	Р
BEZZ	Basic Health and Occupational Safety Regulations Ivana Nová, Radek Havlí ek, Vladimír K la Radek Havlí ek Vladimír K la (Gar)	Z	0	2BP+2BC	Z	Р

Characteristics of the courses of this group of Study Plan: Code=2018_BEEMBBE Name=Safety of the bachelor's studies

BEZB	Safety in Electrical Engineering for a Bachelor´s Degree	_ Z	0
The purpose of the safe	ty course is to give the students basic knowledge of electrical equipment and installation as to avoid danger arising from opera	ation of it. This intr	oductory course
contains fundamentals	of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to work	on electrical equip	pment.
BEZZ	Basic Health and Occupational Safety Regulations	Z	0

The guidelines were worked out based on The Training Scheme for Health and Occupational Safety designed for employees and students of the Czech Technical University in Prague, which was provided by the Rector's Office of the CTU. Safety is considered one of the basic duties of all employees and students. The knowledge of Health and Occupational Safety regulations forms an integral and permanent part of qualification requirements. This program is obligatory.

Code of the group: 2018_BEEMP

Name of the group: Compulsory subjects of the programme

Requirement credits in the group: In this group you have to gain 118 credits

Requirement courses in the group: In this group you have to complete 24 courses

Credits in the group: 118

Note on the group:

Note on the gro	<u> </u>					
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
B0B01DRN	Differencial Equations and Numerical Analysis Petr Habala, Jakub Rondoš, Jakub Stan k, Daniel Gromada, Josef Dvo ák Petr Habala Petr Habala (Gar.)	Z,ZK	4	2P+2C	L	Р
B1B38EMA	Electrical Measurements Jakub Svatoš Jakub Svatoš (Gar.)	KZ	5	2P+2L	L	Р
B1B31EOS	Electric circuits Martin Pokorný Martin Pokorný (Gar.)	Z,ZK	6	3P+2S	Z	Р
B1B15EN11	Power Engineering 1 Ladislav Musil, Ivo Doležel	Z,ZK	5	3P+2S	L	Р
B1B15EN2	Power Engineering 2 Ivo Doležel, Zden k Müller	Z,ZK	5	2P+2L	Z	Р
B1B17EMP	Electromagnetic Field Vít zslav Pankrác Vít zslav Pankrác (Gar.)	Z,ZK	5	2P+2C	Z	Р
B1B34EPS	Elektronics for Heavy-current engeneering Vladimír Janí ek, Adam Bou a, Jan Novák, Tomáš Teplý, Tomáš Martan Vladimír Janí ek Vladimír Janí ek (Gar.)	KZ	4	2P+2L	Z	Р
B1B02FY1	Physics 1 Petr Koní ek Petr Koní ek Petr Koní ek (Gar.)	Z,ZK	8	4P+1L+2C	; L	Р
B1B02FY2	Physics 2 Petr Koní ek, Marek Brothánek, Vojt ch Jandák Petr Koní ek Petr Koní ek (Gar.)	Z,ZK	7	3P+1L+2C	Z	Р
B0B01KANA	Complex Analysis Zden k Mihula, Hana Tur inová Zden k Mihula Zden k Mihula (Gar.)	Z,ZK	4	2P+2S	Z	Р
B0B01LAGA	Linear Algebra Jakub Rondoš, Josef Dvo ák, Ji í Velebil, Daria Pavlova, Alena Gollová, Mat j Dostál Ji í Velebil Ji í Velebil (Gar.)	Z,ZK	7	4P+2S	Z	Р
B0B01MA1A	Mathematical Analysis 1 Jakub Stan k, Josef Dvo ák, Veronika Sobotíková, Natalie Žukovec Veronika Sobotíková Veronika Sobotíková (Gar.)	Z,ZK	6	4P+2S	Z	Р
B0B01MA2A	Mathematical Analysis 2 Veronika Sobotíková, Jaroslav Tišer, Martin K epela, Miroslav Korbelá Jaroslav Tišer Jaroslav Tišer (Gar.)	Z,ZK	6	4P+2S	L	Р
B1B13MVE1	Materials for Power Electrical Engineering Jan Zemen, Pavel Mach, Josef Sedlá ek, Karel Dušek, Ivana Beshajová Pelikánová Karel Dušek Pavel Mach (Gar.)	Z,ZK	4	2P+2L	Z	Р
B0B99PRPA	Procedural Programming Stanislav Vítek Stanislav Vítek Stanislav Vítek (Gar.)	KZ	4	2P+2C	Z	Р
B1BPROJ4	Bachelor project Zden k Müller, Ivana Beshajová Pelikánová, Jan Mikeš, Jan Kyncl, Jan Bauer, Karel Künzel, Stanislav Bou ek, Ji í Vaší ek, Miroslav Vítek, Jan Bauer Jan Bauer (Gar.)	Z	4	4s	Z,L	Р
B1B13PPS	Industrial computer systems Michal Brejcha Michal Brejcha Michal Brejcha (Gar.)	Z,ZK	4	2P+2L	L	Р
B1B13TEP	Electrical engineering technological processes Pavel Mach, Karel Dušek, Petr Veselý, Jan Kuba, Radek Procházka Karel Dušek Pavel Mach (Gar.)	Z,ZK	4	3P+2L	L	Р
B1B15VYA	Computational Applications Jan Kyncl Jan Kyncl (Gar.)	KZ	4	2P+2C	L	Р
B1B13VVZ1	Manufacturing of Power Devices Radek Procházka, Ji í Hájek, Petr Gric Ji í Hájek Ji í Hájek (Gar.)	Z,ZK	4	2P+2L	Z	Р
B1B14ZPO	Fundametals of Electric Drives Pavel Kobrle Pavel Kobrle	Z,ZK	5	2P+2L	Z	Р
B1B14ZSP	Electric Machines and Apparatuses Basics Pavel Kobrle, Pavel Mindl Pavel Kobrle Pavel Kobrle (Gar.)	Z,ZK	5	3P+2L	L	Р
B1B14ZEL1	Fundamentals of Electrotechnical Engineering Ivana Nová, Vít Hlinovský, Ji í Beranovský Ivana Nová	KZ	4	2P+2C	Z	Р
B1B14ZVE	Power Electronics Jan Bauer, Ji í Lettl Ji í Lettl (Gar.)	Z,ZK	4	2P+2L	Z	Р

Characteristics of the courses of this group of Study Plan: Code=2018_BEEMP Name=Compulsory subjects of the programme

B0B01DRN Differencial Equations and Numerical Analysis

Z,ZK

4

This course introduces students to the classical theory of ordinary differential equations (separable and linear ODEs) and also to bsics of numerical methods (errors in calculations and stability, numerical solutions of algebraic and differential equations and their systems). The course takes advantage of the synnergy between theoretical and practical point of view.

B1B38EMA	Electrical Measurements	KZ	5
-	o fundamentals of measurement and instrumentation. Based on the principle of the methods of electrical quantities measure apacitance and inductance) a structure and properties of measuring instruments are explained including principles of their co		
• •	ls of magnetic measurements close the course.		
B1B31EOS	Electric circuits	Z,ZK	6
-	indamental methods of electrical circuit analysis. The aim is to unify different level of knowledge of students coming from sch		-
	dge necessary for next subjects. It presents the difference among physical circuit and its models, and then it presents the beha		
	soidal steady state as well as transients, caused by changes in the circuit. Acquired knowledge should, among other things, al ysis and simulation of electrical circuits by means of software tools.	so be used for chi	icai assessment
B1B15EN11	Power Engineering 1	Z,ZK	5
B1B15EN2	Power Engineering 2	Z,ZK	5
B1B17EMP	Electromagnetic Field	Z,ZK	5
	lents acquinted with principles and applied electromagnetic field theory basics.	, ,	
B1B34EPS	Elektronics for Heavy-current engeneering	KZ	4
-	sic passive and active electronic components. Structure, physical and circuit properties of components. Component behavio	_	
and large analog, digital devices.	and optical signals. More complex circuit systems and communication technologies. Measuring the most important application	ons of modern se	miconductor
	Physics 1	Z,ZK	8
· ·	Filysics 1 sics at the Faculty of Electrical Engineering - Physics 1, is devoted to the introduction into two important areas of physics. The	, ,	-
· ·	e electric and magnetic field. Within the framework of the classical mechanics, the students study the particle kinematics; dyna		
of mass particles and rig	gid bodies. The students should be able to solve basic problems dealing with the description of mechanical systems, which the	ney can meet durir	ng their further
	echanics is followed by the relativistic mechanics, electric and magnetic field - both stationary as well as non-stationary. The		-
consecutive course Physical Consecutive course Physical Consecutive Course Physical Consecutive Course Physical Course Physical Course Physical Course Course Physical Course	y of electrical circuits, theory of electrotechnical materials or radioelectronics. Apart of this, the knowledge gained in this coul	rse is required for	the study of the
B1B02FY2	Physics 2	Z,ZK	7
l l	closely linked with the course Physics 1. Within the framework of this course the students will first of all learn foundations of	, ,	Following topic
•	rill give to the students basic insight into the properties of waves and will help to the students to understand that the presente	•	• .
universal character in sp	ite of the waves character. Particular types of waves, such as acoustic or optical waves are the subjects of the following sect	ion. Quantum med	chanics and
	plete the student?s general education in physics. The knowledge gained in this course will help to the students in study of su		as robotics,
B0B01KANA	ring technique and will allow them to understand the principles of novel technologies and functioning of new electronic device	z,ZK	4
,	Complex Analysis ction to the fundamentals of complex analysis and its applications. The basic principles of Fourier, Laplace, and Z-transform		
		are explained, in	adding them
B0B01LAGA	Linear Algebra	Z,ZK	7
		-	•
			eigenvalues and
	ns include solving systems of linear equations, geometry in three-dimensional space (including dot and cross products), and	the singular value	edecomposition
of a matrix.			
of a matrix. B0B01MA1A	Mathematical Analysis 1	z,ZK	e decomposition
of a matrix. B0B01MA1A	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable.		
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an in	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral	Z,ZK	6
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series.	Z,ZK Z,ZK s. Other part cont	6 6 ains function
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1	Mathematical Analysis 1 burse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering	Z,ZK Z,ZK s. Other part cont	6 6 ains function
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descri	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors,	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators	6 6 ains function 4 , magnetic
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descrimaterials and semicond	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties,	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the	6 6 ains function 4 , magnetic ne use. The
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high	Mathematical Analysis 1 purse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering bition of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, ner detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental contents.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the	6 6 ains function 4 , magnetic ne use. The
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental cond with selected nanomaterials and their applications.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the	6 6 ains function 4 , magnetic ne use. The
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films a	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 itroduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conditions and with selected nanomaterials and their applications. Procedural Programming	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining,	6 ains function 4 , magnetic ne use. The with materials
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films an B0B99PRPA	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 Introduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering of the of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors and with selected nanomaterials and their applications. Procedural Programming Bachelor project	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ	6 6 ains function 4 , magnetic ne use. The with materials
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering of the properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data	6 6 ains function 4 , magnetic ne use. The with materials 4 4 4 acquisition and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, software	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering outon of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their presentation of numbers and their presented elementary digital circuits, the representation of numbers and their presented elementary digital circuits, the representation of numbers and their presented elementary digital circuits, the representation of numbers and their presented elementary digital circuits, the representation of numbers and their presented elementary digital circuits.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in micro	6 6 ains function 4 , magnetic ne use. The with materials 4 4 4 acquisition and accomputer and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mi	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 Itroduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering outons, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conditions and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their procedured programming.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microial condition are p	6 6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ocomputer and resented.
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mi	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering outors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental cond with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microial condition are p Z,ZK	6 6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ocomputer and resented. 4
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, software fundamental block of mi B1B13TEP Technologies used in elections.	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes extronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamentary discussed fundamentary discussed fundamentary discussed fundamentary discussed.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microial condition are p Z,ZK hatals of winding, d	6 6 ains function 4, magnetic ne use. The with materials 4 4 acquisition and ocomputer and resented. 4 rying and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, software fundamental block of mi B1B13TEP Technologies used in elections.	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes extronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamentary discussed fundamentary discussed fundamentary discussed fundamentary discussed.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microial condition are p Z,ZK hatals of winding, d	6 6 ains function 4, magnetic ne use. The with materials 4 4 acquisition and ocomputer and resented. 4 rying and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwath fundamental block of mit B1B13TEP Technologies used in elementary in the subject is secured to the subject is focused of the subj	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes extronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamentary discussed fundamentary discussed fundamentary discussed fundamentary discussed.	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microial condition are p Z,ZK hatals of winding, d	6 6 ains function 4, magnetic ne use. The with materials 4 4 acquisition and ocomputer and resented. 4 rying and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elempter in the series of the series	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering obtain of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors, which are used in power electrical engineering, with properties of mica, glass and their applications, with environmental conductors, which are electrical engineering and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their procorporecessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes actronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundament. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the productive joining, KZ Z,ZK hardware for data rocessing in microical condition are p Z,ZK atals of winding, disembly technologic KZ Z,ZK	6 6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 4
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elempter impregnation processes presented. B1B13VVZ1 The topic of the subject	Mathematical Analysis 1 burse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering option of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, her detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors, which are used in power electrical engineering, with properties of mica, glass and their applications, with environmental conductors and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with retools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes externorics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundament. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai	Z,ZK z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data recessing in microisial condition are p Z,ZK atals of winding, disembly technologic KZ Z,ZK n part of the subjections	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 ect is devoted to
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elementary in the subject is focused of the subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subject transformers and rotating and subject is focused in the subje	lications, particularly to solving differential and difference equations. BOILAGA Linear Algebra Linear Algebra Course covers introductory topics of linear algebra. It begins with fundamental concepts related to vector spaces and linear transform (suscions, bases, coordinates of vectors, etc.). The next part of the course is devoted to matrix theory (determinants, inverse matrix, matrice invectors). Applications include solving systems of linear equations, geometry in three-dimensional space (including dot and cross prodimatrix). BOIMA1A Mathematical Analysis 1 Is an introductory course to differential and integral calculus of functions of one real variable. BOIMA2A Mathematical Analysis 2 Subject covers an introduction to the differential and integral calculus in several variables and basic relations between curve and surfaces and power series with application to Taylor and Fourier series. BI3MVE1 Materials for Power Electrical Engineering strate physical description of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, erials and semiconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between plent will meet, in higher detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with enviror him and thick films and with selected nanomaterials and their applications. BOPRPA Procedural Programming BPROJ4 Bachelor project BI3PPS Industrial computer systems Subject is focused on basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students we processing, software tools and application examples. There are presented elementary digital circuits, the representation of numbers a lamental block of microprocessor and microcomputer. The single-chip microcomputer, embedded application, industrial PC and design engation processes. The subject is also the basis for producing single-crysta		6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 ect is devoted to
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elempter impregnation processes presented. B1B13VVZ1 The topic of the subject transformers and rotatin converters including dia	Mathematical Analysis 1 ourse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering otion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes actronics, laser, and other beam technological processes and to the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai granchines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power granchines, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of manufactions, and the plan integral calculus and windings. Second half of the subject is dedicated to manufacturing of power granchines, reliable operation. Last part of lectures deals with lay	Z,ZK Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data rocessing in microcial condition are p Z,ZK atals of winding, dembly technologic KZ Z,ZK n part of the subject semiconductive definition and the subject semico	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and exponented. 4 rying and es are also 4 4 ect is devoted to evices and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films and B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, software fundamental block of miter B1B13TEP Technologies used in elementary in the subject is focused of the subject is focused in the subject is focused of the subject in converters including diaser in the subject in	Mathematical Analysis 1 Durse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering Dition of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconcuctors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental cond with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with retools and application examples. There are presented elementary digital circuits, the representation of numbers and their proproprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes actronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai grachines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power gnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives	Z,ZK z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data recessing in microcial condition are p Z,ZK atals of winding, diembly technologic KZ Z,ZK n part of the subject semiconductive deuracturing. Z,ZK	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 ect is devoted to evices and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elempted impregnation processes presented. B1B13VVZ1 The topic of the subject transformers and rotatin converters including diates and interest and subject the course provides the	Mathematical Analysis 1 Durse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 Irroduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering Dition of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconcurred to the surface of the stress is put on relationships between properties, are detail, with ceramics for electrical engineering, are presented. The stress is put on relationships between properties, and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes exteriorics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai g machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power grostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives basic terms and knowledge in electric drives and in the issues related to this discipline as well. Th	Z,ZK z,ZK s. Other part cont Z,ZK ductors, insulators technology and the productive joining, KZ Z,ZK hardware for data rocessing in microisal condition are p Z,ZK atals of winding, disembly technologic KZ Z,ZK n part of the subjection of the	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 cet is devoted to evices and 5 ric drives logic
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elempted impregnation processes presented. B1B13VVZ1 The topic of the subject transformers and rotatin converters including diates and interest and subject the course provides the	Mathematical Analysis 1 Durse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 Irroduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering Jotion of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconcuctors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes sectoronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai g machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power apostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives basic terms and knowledge in electric drives and in the issues related to this discipline as well. The lectures are focused on roll and also discrete control, and on the characteristi	Z,ZK z,ZK s. Other part cont Z,ZK ductors, insulators technology and the productive joining, KZ Z,ZK hardware for data rocessing in microisal condition are p Z,ZK atals of winding, disembly technologic KZ Z,ZK n part of the subjection of the	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 4 cet is devoted to evices and 5 ric drives logic
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films and B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, software fundamental block of midelian processes presented. B1B13TEP Technologies used in elempter and impregnation processes presented. B1B13VVZ1 The topic of the subject transformers and rotatin converters including diaux B1B14ZPO The course provides the control, continuous contare explained. B1B14ZSP	Mathematical Analysis 1 Durse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 Irroduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering Dition of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconcuctors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, and with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with the tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proprocessors and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes externics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Mai g machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power gnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives basic terms and knowledge in electric drives and in the issues related to this discipline as well. The lectures are focused on roll and also discrete control, and on the character	Z,ZK s. Other part cont Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the conductive joining, KZ Z,ZK hardware for data recessing in microcial condition are por Z,ZK atals of winding, distembly technologies KZ Z,ZK n part of the subject semiconductive defendence dufacturing. Z,ZK the basic of elected drives with DC are z,ZK	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and ecomputer and resented. 4 rying and es are also 4 cet is devoted to evices and 5 ric drives logic and AC machines 5
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwal fundamental block of mit B1B13TEP Technologies used in elempted impregnation processes presented. B1B13VVZ1 The topic of the subject transformers and rotating converters including diated by the control, continuous contained are explained. B1B14ZSP The course explains the	Mathematical Analysis 1 burse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering on basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental cond with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with re tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proproprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes ectronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiew. Mai g machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power gnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives basic terms and knowledge in electric drives and in the issues related to this	Z,ZK s. Other part cont Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the productive joining, KZ Z,ZK hardware for data recessing in microcial condition are point in the production of the subject	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and expensed. 4 rying and ess are also 4 cot is devoted to evices and 5 ric drives logic and AC machines 5 s of rotating and
of a matrix. B0B01MA1A This is an introductory of B0B01MA2A The subject covers an ir series and power series B1B13MVE1 At first a physical descripmaterials and semicond student will meet, in high for thin and thick films at B0B99PRPA B1BPROJ4 B1B13PPS The subject is focused of data processing, softwafundamental block of mit B1B13TEP Technologies used in elementary in the subject is focused in the subject is focused of the subject in the	Mathematical Analysis 1 burse to differential and integral calculus of functions of one real variable. Mathematical Analysis 2 troduction to the differential and integral calculus in several variables and basic relations between curve and surface integral with application to Taylor and Fourier series. Materials for Power Electrical Engineering on basic types of materials for electrical engineering is carried out. Types of conductors, superconductors, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, are detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental cond with selected nanomaterials and their applications. Procedural Programming Bachelor project Industrial computer systems In basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with re tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proproprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Electrical engineering technological processes ectronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamer. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic ass Computational Applications Manufacturing of Power Devices is focused on manufacturing of power electrical machines and devices from construction and technological point of wiew. Mai g machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power gnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of man Fundametals of Electric Drives basic terms and knowledge in electric drives and in the issues related to this	Z,ZK s. Other part cont Z,ZK s. Other part cont Z,ZK ductors, insulators technology and the productive joining, KZ Z,ZK hardware for data recessing in microcial condition are point in the production of the subject	6 ains function 4, magnetic ne use. The with materials 4 4 4 acquisition and expensed. 4 rying and ess are also 4 cot is devoted to evices and 5 ric drives logic and AC machines 5 s of rotating and

B1B14ZEL1 Fundamentals of Electrotechnical Engineering

ΚZ

| NZ | 4

The course extends necessary knowledge of creating technical documentation, including oral and written presentation of technical information. The second half of the semester is focused on explaining and practicing the basic parts of electrical engineering, so that the students' initial knowledge is increased to the level needed in the following semesters.

B1B14ZVE Power Electronics

Z,ZK

1

The course focuses on the basic types of power semiconductor converters, which are used to change the parameters of electricity. Students are introduced to the basic principles, properties and applications of power electronic converters, their advantages, disadvantages, and fuse sizing.

Code of the group: 2015_BZAJ

Name of the group: Exam from the english language

Requirement credits in the group:

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

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
B0B04B1K	English language B1 - classified assessment Markéta Havlí ková, Pavla Péterová, Erik Peter Stadnik, Michael Ynsua, Petra Juna Jennings Petra Juna Jennings Petra Juna Jennings (Gar.)	KZ	0	0C	Z,L	Р
B0B04B2Z	English language B2 - exam Markéta Havlí ková, Michael Ynsua, Petra Juna Jennings, Dana Saláková Petra Juna Jennings Petra Juna Jennings (Gar.)	Z,ZK	0	0C	Z,L	Р

Characteristics of the courses of this group of Study Plan: Code=2015_BZAJ Name=Exam from the english language

B0B04B1K	English language B1 - classified assessment	KZ	0
verifying of the student	t's skills of B1 level		
B0B04B2Z	English language B2 - exam	Z,ZK	0

I) The B2 English Exam is a compulsory subject for all Faculty of Electrical Engineering students at the Czech Technical University. According to the Study and Examination Rules and Regulations for Students at CTU (Part III, Article 4), a compulsory subject is one whose completion is a necessary condition in order to successfully complete the study programme. In addition, this requires the passing of an examination evaluated on the scale A, B, C, D, or E (SERR Part III, Article 6). II) According to the Common European Framework of Reference for Languages (CEFR), an international standard for describing language ability, the definition of an English language learner who has achieved the B2 (Upper-Intermediate) level is one who can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options. III) Students who have successfully passed an approved international exam within the past five years may present their certificate to the Department of Languages, Faculty of Electrical Engineering. Upon approval, students are then exempt from both the Written Test and the Oral Part. For a list of approved international exams go to the department website: http://jazyky.fel.cvut.cz/

Name of the block: Povinné p edm ty zam ení

Minimal number of credits of the block: 36

The role of the block: PZ

Code of the group: 2018_BEEMPS2

Name of the group: Compulsory subjects of the branch

Requirement credits in the group: In this group you have to gain 36 credits

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

Credits in the group: 36

Note on the group:

Specializace - elektrotechnika a management

mote on the group). Opecializace - elektrotec	illika a illali	agemen	·		
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
B1B16MME	Macro and Microekonomics Miroslav Vítek, Josef ernohous, Helena Fialová, Lubomír Lízal, Jan Jandera, Blanka Ku erková Helena Fialová Lubomír Lízal (Gar.)	Z,ZK	5	2P+2S	Z	PZ
B1B01MEK	Mathematics for Economy Jakub Stan k, Miroslav Korbelá , Kate ina Helisová Kate ina Helisová (Gar.)	Z,ZK	5	3P+2S	L	PZ
B1B16PPP	Business Law Jaroslav Knápek, Michal Briaský, Pavel Koš ál, Martin Dobiáš Martin Dobiáš Jaroslav Knápek (Gar.)	Z,ZK	5	2P+2C	L	PZ
B1B16UEE1	Economy of Power Industry Ji í Vaší ek, Miroslav Vítek, Jaroslav Knápek Miroslav Vítek Jaroslav Knápek (Gar.)	Z,ZK	5	2P+2C	Z	PZ
B1B13VEZ	Manufacturing of Electronic Equipment David Bušek David Bušek (Gar.)	Z,ZK	6	2P+2L	L	PZ

B1B16ZFM1	Basics of Financial Management Josef ernohous, Blanka Ku erková, Old ich Starý Old ich Starý Old ich Starý (Gar.)	Z,ZK	5	2P+2C	L	PZ	
B1B16ZPU	Basics of Business Economics Josef ernohous, Blanka Ku erková, Old ich Starý Josef ernohous Old ich Starý (Gar.)	KZ	5	2P+2C	Z	PZ	

Characteristics of	the courses of this group of Study Plan: Code=2018_BEEMPS2 Name=Compulsory subjection	cts of the bra	nch
B1B16MME	Macro and Microekonomics	Z,ZK	5
Basic economic terms, i	narket, law of demand, law of supply, market equilibrium, price regulation, price and income elasticities, consumer's behavior, p	oroducer's behavio	or, cost, revenue,
profit, market failure, mo	onopoly, government macroeconomic policy, gross domestic product, multipliers, money, inflation, banking system, monetary	policy, labor mark	cet, business
cycle, fiscal policy, forei	gn trade policy, comparative advantage, CR and EU, Euro.		
B1B01MEK	Mathematics for Economy	Z,ZK	5
The aim is to introduce	the basic theory of probability and statistics, familiarise students with basic terms properties and methods used in working w	ith random proces	ses, especially
with Markov chains, and	d show applications of these mathematical tools in economics and insurance.		
B1B16PPP	Business Law	Z,ZK	5
B1B16UEE1	Economy of Power Industry	Z,ZK	5
B1B13VEZ	Manufacturing of Electronic Equipment	Z,ZK	6
(obsolete text, currently	valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components	and equipment. P	rinted circuit
boards fabrication. Sold	ering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive	on electrostatic fie	eld. Certification,
accreditation, quality co	ntrol and quality assurance.		
B1B16ZFM1	Basics of Financial Management	Z,ZK	5
B1B16ZPU	Basics of Business Economics	KZ	5

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 9

The role of the block: PV

Code of the group: 2018_BEEMH

Name of the group: Humanities subjects

Requirement credits in the group: In this group you have to gain at least 4 credits (at most 28)

Requirement courses in the group: In this group you have to complete at least 1 course (at most 9)

Credits in the group: 4 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
B0B16ET1	Ethic 1 Vladimír Sláme ka Vladimír Sláme ka (Gar.)	KZ	4	2P+2C	Z	PV
B0B16FIL	Philosophy Peter Zamarovský Peter Zamarovský (Gar.)	ZK	2	2P+0S	Z,L	PV
B0B16FI1	Philosophy 1 Peter Zamarovský Peter Zamarovský (Gar.)	KZ	4	2P+2S	Z	PV
B0B16HTE	History of technology and economic Jan Mikeš, Marcela Efmertová Marcela Efmertová (Gar.)	ZK	2	2P+0S	Z,L	PV
B0B16HT1	History of science and technology 1 Jan Mikeš, Marcela Efmertová Marcela Efmertová (Gar.)	KZ	4	2P+2S	Z	PV
B0B16HI1	History 1 Milena Josefovi ová Milena Josefovi ová Milena Josefovi ová (Gar.)	KZ	4	2P+2S	Z	PV
B0B16MPS	Psychology Jan Fiala Jan Fiala (Gar.)	Z,ZK	4	2P+2S	Z,L	PV
B0B16MPL	Psychology for managers Jan Fiala Jan Fiala (Gar.)	ZK	2	2P+0S	Z,L	PV
A003TV	Physical Education Ji í Drnek	Z	2	0+2	L,Z	PV

Characteristics of the courses of this group of Study Plan: Code=2018_BEEMH Name=Humanities subjects

B0B16ET1	Ethic 1	KZ	4			
Aim of this subject is to	provide the students an orientation not only in general problems of ethics but above all to offer instructions for solving various	situations of hum	an life. Essential			
parts of the subject are	discussions in which students can react to lectures but also to actual questions coming with news and look for the communa	l answers.				
B0B16FIL	Philosophy	ZK	2			
We deal with the most in	We deal with the most important persons, schools and ideas of ancient philosophy. We are concerned especially on transdisciplinary nature of philosophy and connection of old					
philosophical thoughts v	philosophical thoughts with recent problems of science, technology, economics and politics.					
B0B16FI1	Philosophy 1	KZ	4			
We deal with the most in	mportant persons, schools and ideas of ancient philosophy. We are concerned especially on transdisciplinary nature of philo	sophy and connec	tion of old			
philosophical thoughts v	with recent problems of science, technology, economics and politics.					
B0B16HTE	History of technology and economic	ZK	2			
B0B16HT1	History of science and technology 1	KZ	4			
B0B16HI1	History 1	KZ	4			

B0B16MPS	Psychology	Z,ZK	4
B0B16MPL	Psychology for managers	ZK	2
A003TV	Physical Education	Z	2

Code of the group: 2018_BEEMPV2

Name of the group: Compulsory subjects of the programm

Requirement credits in the group: In this group you have to gain 5 credits

Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 5

Note on the group:

Specializace - Elektrotechnika a management

	F - '		-			
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
B1B16EOB	Lightning protection economy Jan Mikeš Jan Mikeš Jan Mikeš (Gar.)	Z,ZK	5	2P+2L	L	PV
B1B13SSE1	Solar Systems and Electrochemical Sources Pavel Hrzina, Vít zslav Benda Pavel Hrzina Vít zslav Benda (Gar.)	Z,ZK	5	2P+2L	L	PV

Characteristics of the courses of this group of Study Plan: Code=2018_BEEMPV2 Name=Compulsory subjects of the programm

B1B16EOB Lightning protection economy

The subject provides an introduction to lightning discharge physics and deals with protections against their effects. Students are familiarized with the design, testing, and implementation of protections. Risk management methods for lightning damage are discussed. The course includes an excursion to the production of lightning current arresters and a real study of the effects of lightning currents in the laboratory supported by numerical simulations.

B1B13SSE1 Solar Systems and Electrochemical Sources

Z,ZK

5

The course familiarizes students with the basic principles of electrochemical sources and photovoltaic cells and systems. At the beginning, the emphasis is on understanding the basic principle using the equivalent circuits and mathematical description. In the next section, the basic types of electrochemical sources and their technical parameters are explored separately. Similarly, students become familiar with the technology of photovoltaic cells and modules. Another chapter is devoted to the basic applications such as solar-thermal. At the end of the course, students become familiar with economical and technological implications of the combination of solar systems and electrochemical sources.

Name of the block: Elective courses Minimal number of credits of the block: 0

The role of the block: V

Code of the group: 2015_BJKA

Name of the group: English language courses

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
B0B04A21	English Language A2-1 Dana Saláková	Z		2s	Z	V
B0B04A22	English Language A2-2 Dana Saláková	Z	0	2s	L	V
B0B04B11	English Language B1-1 Petra Juna Jennings Petra Juna Jennings (Gar.)	Z	0	2C	Z	V
B0B04B12	English Language B1-2 Petra Juna Jennings Petra Juna Jennings (Gar.)	Z	0	2C	L	V
B0B04B21	English Language B2-1 Petra Juna Jennings Petra Juna Jennings (Gar.)	Z	3	2C	Z	V
B0B04B22	English Language B2-2 Petra Juna Jennings Petra Juna Jennings (Gar.)	Z	3	2C	Z,L	V

Characteristics of the courses of this group of Study Plan: Code=2015_BJKA Name=English language courses

B0B04A21	English Language A2-1	Z					
The course is open to students who are beginners in their second language. Course objective: Achieving competence in basic English.							
B0B04A22	English Language A2-2	Z	0				
The course is open to s	tudents who are beginners in their second foreign language. The course objective is to develop and sustain their basic knowled	edge of the Engli	sh language.				
B0B04B11	English Language B1-1	Z	0				
Course objective: Broadening the basic knowledge of general English; mastering basic specialised language; focusing on text analysis and vocabulary expansion; understanding spoken							
English.							

B0B04B12 | English Language B1-2 | Z | 0 |
Course objective: Broadening the basic knowledge of general English; mastering basic specialised language; focusing on text analysis and vocabulary expansion; understanding spoken English.

B0B04B21 | English Language B2-1 | Z | 3 |
This course is designed as a full-year, two semester preparation course for the universitys compulsory B2-level English Examination (Anglický jazyk B2 - zkouška - B0B04B2Z*). While

This course is designed as a full-year, two semester preparation course for the universitys compulsory B2-level English Examination (Anglický jazyk B2 - zkouška - B0B04B2Z*). While the course is focused on helping students reach a level required to pass the B2-level English Examination (or improve their English for a higher mark), it also focuses more on the academic and technical vocabulary and grammar expected of students at the university level. *NOTE: This exam is also used for determining an appropriate level of English for Erasmus / International Study.

This course is designed as a full-year, two semester preparation course for the universitys compulsory B2-level English Examination (Anglický jazyk B2 - zkouška - B0B04B2Z *). While the course is focused on helping students reach a level required to pass the B2-level English Examination (or improve their English for a higher mark), it also focuses more on the academic and technical vocabulary and grammar expected of students at the university level. *NOTE: This exam is also used for determining an appropriate level of English for Erasmus / International Study.

Code of the group: BTV

B0B04B22

Name of the group: Physical education

English Language B2-2

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
TVV	Physical education	Z	0	0+2	Z,L	٧
TV-V1	Physical education	Z	1	0+2	Z,L	V
TVV0	Physical education	Z	0	0+2	Z,L	V

Characteristics of the courses of this group of Study Plan: Code=BTV Name=Physical education

TVV	Physical education	Z	0
TV-V1	Physical education	Z	1
TVV0	Physical education	Z	0

Code of the group: BTVK

Name of the group: Physical education courses

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
TVKLV	Physical Education Course	Z	0	7dní	L	V
TVKZV	Physical Education Course	Z	0	7dní	Z	V

Characteristics of the courses of this group of Study Plan: Code=BTVK Name=Physical education courses

TVKLV	Physical Education Course	Z	0
TVKZV	Physical Education Course	Z	0

Code of the group: 2018_BEEMVOL Name of the group: Elective subjects Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0

Note on the group: ~Nabídku volitelných předmětů uspořádaných podle kateder najdete na webových stránkách

http://www.fel.cvut.cz/cz/education/volitelne-predmety.html\\

List of courses of this pass:

Code	Name of the course	Completion	Credits
A003TV	Physical Education	Z	2
B0B01DRN	Differencial Equations and Numerical Analysis	Z,ZK	4
	ices students to the classical theory of ordinary differential equations (separable and linear ODEs) and also to bsics of numerical method as the students of classical theory of ordinary differential equations (separable and linear ODEs) and also to bsics of numerical methods as the student of the students of the stu		
•	al solutions of algebraic and differential equations and their systems). The course takes advantage of the synnergy between theoretic		1
B0B01KANA	Complex Analysis introduction to the fundamentals of complex analysis and its applications. The basic principles of Fourier, Laplace, and Z-transform	Z,ZK	ding their
The course is an	applications, particularly to solving differential and difference equations.	are explained, inclu	iding their
B0B01LAGA	Linear Algebra	Z,ZK	7
	introductory topics of linear algebra. It begins with fundamental concepts related to vector spaces and linear transform (such as linear d	· '	
	coordinates of vectors, etc.). The next part of the course is devoted to matrix theory (determinants, inverse matrix, matrices of linear tra- lications include solving systems of linear equations, geometry in three-dimensional space (including dot and cross products), and the		
o.goocto.o,., tpp	of a matrix.	o cii.igaiai vaiao ao	poomo
B0B01MA1A	Mathematical Analysis 1 This is an introductory course to differential and integral calculus of functions of one real variable.	Z,ZK	6
B0B01MA2A	Mathematical Analysis 2	Z,ZK	6
	rs an introduction to the differential and integral calculus in several variables and basic relations between curve and surface integrals.	,	_
	series and power series with application to Taylor and Fourier series.		
B0B04A21	English Language A2-1	Z	
	The course is open to students who are beginners in their second language. Course objective: Achieving competence in basic E		
B0B04A22	English Language A2-2	Z	0
	en to students who are beginners in their second foreign language. The course objective is to develop and sustain their basic knowled		
B0B04B11	English Language B1-1 Broadening the basic knowledge of general English; mastering basic specialised language; focusing on text analysis and vocabulary exp	Z	ding anakan
Course objective: E	sroadening the basic knowledge of general English, mastering basic specialised language, locusing on text analysis and vocabulary exp English.	ansion, understan	aing spoken
B0B04B12	English Language B1-2	Z	0
	Broadening the basic knowledge of general English; mastering basic specialised language; focusing on text analysis and vocabulary exp English.	_	_
B0B04B1K	English language B1 - classified assessment	KZ	0
DODO-DIK	verifying of the student's skills of B1 level	112	0
B0B04B21	English Language B2-1	Z	3
This course is desi	gned as a full-year, two semester preparation course for the universitys compulsory B2-level English Examination (Anglický jazyk B2-	ı · zkouška - B0B04l	32Z*). While
	used on helping students reach a level required to pass the B2-level English Examination (or improve their English for a higher mark)		
academic and tech	inical vocabulary and grammar expected of students at the university level. *NOTE: This exam is also used for determining an appropria	ate level of English	for Erasmus
B0B04B22	/ International Study.	7	_
	English Language B2-2 gned as a full-year, two semester preparation course for the universitys compulsory B2-level English Examination (Anglický jazyk B2 -	Z zkouška - B0B04F	3 327 *) While
	used on helping students reach a level required to pass the B2-level English Examination (or improve their English for a higher mark)		,
	nical vocabulary and grammar expected of students at the university level. *NOTE: This exam is also used for determining an appropria		
	/ International Study.		
B0B04B2Z	English language B2 - exam	Z,ZK	0
, ,	Exam is a compulsory subject for all Faculty of Electrical Engineering students at the Czech Technical University. According to the Students of CTL (2014) to the Cartest Cart	•	
•	udents at CTU (Part III, Article 4), a compulsory subject is one whose completion is a necessary condition in order to successfully com res the passing of an examination evaluated on the scale A, B, C, D, or E (SERR Part III, Article 6). II) According to the Common Euro		U
1	EFR), an international standard for describing language ability, the definition of an English language learner who has achieved the B2	-	
	rstand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisat		-
of fluency and spor	ntaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed to	ext on a wide range	of subjects
	wpoint on a topical issue giving the advantages and disadvantages of various options. III) Students who have successfully passed an	• •	
within the past five	years may present their certificate to the Department of Languages, Faculty of Electrical Engineering. Upon approval, students are the	n exempt from both	the Written
B0B16ET1	Test and the Oral Part. For a list of approved international exams go to the department website: http://jazyky.fel.cvut.cz/	KZ	4
	is to provide the students an orientation not only in general problems of ethics but above all to offer instructions for solving various situ	1	
· ·	f the subject are discussions in which students can react to lectures but also to actual questions coming with news and look for the co		
B0B16FI1	Philosophy 1	KZ	4
	e most important persons, schools and ideas of ancient philosophy. We are concerned especially on transdisciplinary nature of philos	sophy and connecti	on of old
	philosophical thoughts with recent problems of science, technology, economics and politics.		I
B0B16FIL	Philosophy	ZK	2
We deal with the	e most important persons, schools and ideas of ancient philosophy. We are concerned especially on transdisciplinary nature of philosophical thoughts with recent problems of acceptance technology, acceptance and politics	sophy and connecti	on of old
	philosophical thoughts with recent problems of science, technology, economics and politics.	KZ	1
		· K/	4
B0B16HI1	History 1		
B0B16HI1 B0B16HT1	History of science and technology 1	KZ	4
B0B16HI1 B0B16HT1 B0B16HTE	History of science and technology 1 History of technology and economic	KZ ZK	4 2
B0B16HI1 B0B16HT1	History of science and technology 1	KZ	4

B0B99PRPA	Procedural Programming	KZ	4
B1B01MEK	Mathematics for Economy	Z,ZK	5
The aim is to intro	duce the basic theory of probability and statistics, familiarise students with basic terms properties and methods used in working with ra with Markov chains, and show applications of these mathematical tools in economics and insurance.	indom processes	, especiall
B1B02FY1	Physics 1	Z,ZK	8
	of physics at the Faculty of Electrical Engineering - Physics 1, is devoted to the introduction into two important areas of physics. The first e is the electric and magnetic field. Within the framework of the classical mechanics, the students study the particle kinematics; dynamics		
tudies. The classic	and rigid bodies. The students should be able to solve basic problems dealing with the description of mechanical systems, which they call mechanics is followed by the relativistic mechanics, electric and magnetic field - both stationary as well as non-stationary. The stude e study of electrical circuits, theory of electrotechnical materials or radioelectronics. Apart of this, the knowledge gained in this course is consecutive course Physics 2. Physics 2	ents can use the	facts gaine
	Frysics 2 ss 2 is closely linked with the course Physics 1. Within the framework of this course the students will first of all learn foundations of therr		_
the theory of wav universal charact nuclear physics v con	res - will give to the students basic insight into the properties of waves and will help to the students to understand that the presented de ter in spite of the waves character. Particular types of waves, such as acoustic or optical waves are the subjects of the following section will complete the student?s general education in physics. The knowledge gained in this course will help to the students in study of such inputer vision, measuring technique and will allow them to understand the principles of novel technologies and functioning of new electrons.	escription of the v a. Quantum mech modern areas a conic devices.	vaves has anics and s robotics,
B1B13MVE1	Materials for Power Electrical Engineering	Z,ZK	4
materials and se	al description of basic properties and basic types of materials for electrical engineering is carried out. Types of conductors, superconducters, which are used in power electrical engineering, are presented. The stress is put on relationships between properties, teat in higher detail, with ceramics for electrical engineering, with properties of mica, glass and their applications, with environmental conductors, with environmental conductors, with environmental conductors, with environmental conductors.	chnology and the	use. The
B1B13PPS	Industrial computer systems	Z,ZK	4
	sed on basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with hard		-
	software tools and application examples. There are presented elementary digital circuits, the representation of numbers and their proce	•	•
B1B13SSE1	ock of microprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial Solar Systems and Electrochemical Sources	Z,ZK	esented.
	Solar Systems and Electrochemical Sources rizes students with the basic principles of electrochemical sources and photovoltaic cells and systems. At the beginning, the emphasis is		
	equivalent circuits and mathematical description. In the next section, the basic types of electrochemical sources and their technical parame		-
-	become familiar with the technology of photovoltaic cells and modules. Another chapter is devoted to the basic applications such as so		-
Co	ourse, students become familiar with economical and technological implications of the combination of solar systems and electrochemic	al sources.	
B1B13TEP	Electrical engineering technological processes	Z,ZK	4
-	sed in electronics, laser, and other beam technologies and IC packaging will be characterized. There will also be discussed fundamenta ocesses. The subject is also the basis for producing single-crystal Si. Technology using plasma technology, packaging, and basic assen presented.	-	-
B1B13VEZ	Manufacturing of Electronic Equipment	Z,ZK	6
_	Manufacturing of Electronic Equipment urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and	Z,ZK d equipment. Prin	
(obsolete text, cu	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics.	d equipment. Prin	ted circuit
(obsolete text, cu poards fabrication.	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic equipment accreditation, quality control and quality assurance.	d equipment. Prin ectrostatic field. (ted circuit Certification
(obsolete text, cupoards fabrication.	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic accreditation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Prin ectrostatic field. (Z,ZK	ted circuit Certificatio
(obsolete text, cuboards fabrication. B1B13VVZ1 The topic of the sul	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic equipment accreditation, quality control and quality assurance.	d equipment. Printectrostatic field. Constanting Z,ZK rt of the subject is	ted circuit Certification 4 s devoted
(obsolete text, cu poards fabrication. B1B13VVZ1 The topic of the sul transformers and convert	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical machines and quality assurance. Manufacturing of Power Devices bject is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Main part of rotating machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation.	d equipment. Printectrostatic field. Constant of the subject is miconductive deviced.	ted circuit Certificatio 4 s devoted vices and
(obsolete text, cupoards fabrication. B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic equipment. Protection of components and equipment sensitive on electrical machines and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolutions KZ	ted circuit Certificatio 4 s devoted vices and 4
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course externing	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical machines and quality assurance. Manufacturing of Power Devices bject is focused on manufacturing of power electrical machines and devices from construction and technological point of wiev. Main part of rotating machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of the subject is dedicated to manufacturing of power seters including diagnostics, reliable operation.	d equipment. Printectrostatic field. Construction of the subject is miconductive deviced manufacturing KZ and half of the second manufacturing conditions.	ted circuit Certificatio 4 s devoted vices and 4 emester is
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course externing	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic equipment. Protection of components and equipment sensitive on electrical machines and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Constitution of the subject is miconductive deviced manufacturing KZ and half of the second manufacturing conditions.	ted circuit Certificatio 4 s devoted vices and 4 emester is
B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl	urrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic electr	d equipment. Printectrostatic field. Construction of the subject is miconductive devolf manufacturing KZ and half of the seat the following seat Z,ZK	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5
obsolete text, cuborards fabrication. B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provid	Trently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical machines and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Construction of the subject is miconductive design of manufacturing KZ and half of the seath the following seath of electric of electric of the seath of the seath the following seath of electric of	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logic
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous	Trently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronics. Electromagnetic compatibility of Power Devices Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive design from anufacturing KZ and half of the seat the following seat th	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logic C machine
B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP	Trently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactreditation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devoted manufacturing KZ and half of the set of the following set Z,ZK basic of electric control of the Set with DC and A Z,ZK	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logic C machine
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and converts B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactreditation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Construction of the subject is miconductive devoted manufacturing KZ and half of the set of the following set Z,ZK basic of electric des with DC and A Z,ZK and properties of	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logi C machine 5 rotating ar
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and converts B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating elections	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electronic equipment. Protection of components and equipment sensitive on electronic in electronic equipment. Protection of power between the electronic in electronic equipment. Protection of power between the electronic elect	d equipment. Printectrostatic field. Construction of the subject is miconductive devolved for manufacturing KZ and half of the sea of the following sea Z,ZK basic of electric des with DC and A Z,ZK and properties of oral and switching	ted circuit Certificatio 4 s devoted ' vices and . 4 emester is mesters. 5 drives logic C machine 5 rotating ar problems
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and converts B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating elections and control control control control control control course explain non-rotating elections are supported to the course elections are supported to	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactreditation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolved for manufacturing KZ and half of the sea of the following search of electric des with DC and A Z,ZK and properties of oral and switching Z,ZK	ted circuit Certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logi C machine 5 rotating ar problems 4
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and converts B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating elections and control control control control control control course explain non-rotating elections are supported to the course elections are supported to	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic equipment. Protection of components and equipment sensitive on electronic equipment. Protection of components and equipment sensitive on electronic protects. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolved for manufacturing KZ and half of the sea of the following search of electric des with DC and A Z,ZK and properties of oral and switching Z,ZK	ted circuit Certificatio 4 s devoted 'vices and 'vices and 'vices and 's mesters. 5 drives logic C machine 5 rotating ar problems
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating election. B1B14ZVE The course focus B1B15EN11	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronic and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolved for manufacturing KZ and half of the sea of the following search of electric des with DC and A Z,ZK and properties of oral and switching Z,ZK	ted circuit Certification 4 s devoted trices and 4 emester is mesters. 5 drives logic C machine 5 rotating ar problems
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronic and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolved for manufacturing KZ and half of the set of the following set Z,ZK and properties of the subject is with DC and A Z,ZK and properties of the following Z,ZK and properties of the subject is with DC and A Z,ZK and properties of the subject is with DC and S,ZK and properties of the subject is with DC and S,ZK and properties of the subject is with DC and S,ZK and properties of the subject is with DC and S,ZK and properties of the subject is with DC and S,ZK	ted circuit Certification 4 s devoted to vices and 4 emester is mesters. 5 drives logic C machine 5 rotating an problems 4 principles,
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating elections. B1B14ZVE The course focus B1B15EN11	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electromagnetic compatibility of electronic and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive detection of manufacturing KZ and half of the set of the following set Z,ZK and properties of the printer and switching Z,ZK and properties of the printer and switching Z,ZK and properties of the printer and switching Z,ZK and properties of the basic Z,ZK and Z,ZK and Z,ZK and Z,ZK Z,ZK X,ZK	ted circuit 4 s devoted to vices and 4 emester is mesters. 5 drives logic C machine 5 rotating an problems. 4 principles, 5 4
obsolete text, cuboards fabrication. B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15VYA B1B16EOB	Arrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleaction, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive dering the following set of manufacturing the following set of the following set	ted circuit 4 s devoted vices and 4 emester is mesters. 5 drives logic C machine 4 principles, 5 4 5 4 5
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electron-rotating electronser focus B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide	Irrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactrediation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive devolved for manufacturing KZ and half of the subject is the following set Z,ZK and properties of the subject of electric of the subject is with DC and A Z,ZK and properties of the subject is with DC and A Z,ZK and properties of the subject is the following Z,ZK and properties of the basic Z,ZK and properties of the basic Z,ZK and properties of the basic Z,ZK and groups and the basic Z,ZK a	ted circuit 4 s devoted divices and 4 smester is mesters. 5 drives logic C machine 4 principles, 5 4 principles, 5 lementatic
(obsolete text, cuborards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15VYA B1B16EOB The subject provide of protections. Risk	rrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronic and upality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive dering the following set of manufacturing the following set of electric control of electric control of the subject is with DC and Active and properties of the following set of electric control of electric contr	ted circuit 4 s devoted to vices and 4 emester is mesters. 5 drives logic C machine 5 rotating an problems. 4 principles, 5 4 5 lementatio study of the
(obsolete text, curonards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electr B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide of protections. Risk	irrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronic in electronics. Electromagnetic compatibility of electronic and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive detected from an ufacturing KZ and half of the son the following set Z,ZK and properties of oral and switching Z,ZK and	ted circuit certification 4 s devoted vices and 4 semester is mesters. 5 drives logic C machine 4 principles, 5 semesters 4 principles, 5 sementation study of the 5 semesters 5 semesters.
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide of protections. Risk B1B16MME Basic economic ter	rrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electrical in electronic and upality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive dering the following set of manufacturing the following set of the following set of electric of the swith DC and Active and properties of the following set of electric of the following set of the following	ted circuit certificatio 4 s devoted vices and 4 emester is mesters. 5 drives logic C machine 4 principles, 5 4 5 lementatic study of th
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide of protections. Risk B1B16MME Basic economic ter	irrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactricing in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactricing in electronics. Electromagnetic circuits and vindings. Second half of the subject is dedicated to manufacturing of power electrical machines and devices from construction and technological point of wiev. Main part of rotating machines, namely their magnetic circuits and windings. Second half of the subject is dedicated to manufacturing of power sers including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning of Fundamentals of Electrotechnical Engineering Fundamentals of Electrotechnical Engineering India necessary knowledge of creating technical documentation, including oral and written presentation of technical information. The sec laining and practicing the basic parts of electrical engineering, so that the students' initial knowledge is increased to the level needed in Fundametals of Electric Drives Less the basic terms and knowledge in electric drives and in the issues related to this discipline as well. The lectures are focused on the scontrol and also discrete control, and on the characteristics of used controllers in practice. Further, the basic control structures of drive are explained. Electric Machines and Apparatuses Basics Is the principles of machines for convertision of mechanical energy to electrical and back. It discusses the principles of basic functions a ric machines. Following the behavior of electrical machines are discussed basic devices for protection and switching, including behavior properties and applications of power electronic converters, which are used to change the parameters of electricity. St	d equipment. Printectrostatic field. Control of the subject is miconductive dering the following set of manufacturing the following set of the following set of electric of the swith DC and Active and properties of the following set of electric of the following set of the following	ted circuit 4 s devoted to vices and 4 semester is mesters. 5 drives logic C machine 5 rotating an problems 4 principles, 5 s lementation study of the 5 st, revenue.
(obsolete text, cupoards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electromatic focus focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide of protections. Risk B1B16MME Basic economic ter profit, market failing	rrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on eleactrediation, quality control and quality assurance. Manufacturing of Power Devices	d equipment. Printectrostatic field. Control of the subject is miconductive dering the following set of manufacturing the following set of electric control of the swith DC and Active and properties of size and switching the following set of electric control of elect	ted circuit Certification 4 s devoted to vices and 4 emester is mesters. 5 drives logic C machine 5 rotating an problems. 4 principles, 5 4 5 lementatio study of th 5 st, revenue, business
(obsolete text, cuboards fabrication.) B1B13VVZ1 The topic of the sultransformers and convert B1B14ZEL1 The course exter focused on expl B1B14ZPO The course provide control, continuous B1B14ZSP The course explain non-rotating electric B1B14ZVE The course focus B1B15EN11 B1B15EN2 B1B15EN2 B1B16EOB The subject provide of protections. Risk B1B16MME Basic economic ter profit, market failt	irrently valid is czech version) Mechanical and electrical design. The electric contact. Joining of conductors. Cooling of components and Soldering in electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics. Electromagnetic compatibility of electronic equipment. Protection of components and equipment sensitive on electronics in the lectronic equipment. Protection of components and equipment sensitive on electronic protection and technological point of wiev. Main part of technical for power powers are including diagnostics, reliable operation. Last part of lectures deals with layouts of manufacturing, lean management and planning in Fundamentals of Electrotechnical Engineering. Soldering and practicing the basic parts of electrical engineering, so that the students' initial knowledge is increased to the level needed in Fundamentals of Electric Drives les the basic terms and knowledge in electric drives and in the issues related to this discipline as well. The lectures are focused on the control and also discrete control, and on the characteristics of used controllers in practice. Further, the basic control structures of drive are explained. Electric Machines and Apparatuses Basics Is the principles of machines for convertison of mechanical energy to electrical and back. It discusses the principles of basic functions a ric machines. Following the behavior of electrical machines are discussed basic devices for protection and switching, including behavior power lead applications of power electronic converters, their advantages, disadvantages, and fuse sizing. Power Engineering 1 Power Engineering 2 Computational Applications Lightning protection economy as an introduction to lightning discharge physics and deals with protections against their effects. Students are familiarized with the design of management methods for lightning currents in the laboratory supported by numerical simulations. Macro and Microekonomics management meth	d equipment. Printectrostatic field. Control of the subject is miconductive devolf manufacturing KZ and half of the son the following set Z,ZK and properties of oral and switching Z,ZK and properties of z,ZK and properties of z,ZK and properties of z,ZK and properties of z,ZK and z,ZK an	ted circuit Certification 4 s devoted textices and 4 emester is mesters. 5 drives logic C machine 5 rotating an problems. 4 principles, 5 4 5 lementatio study of th

B1B17EMP	Electromagnetic Field	Z,ZK	5
	This course gets its students acquinted with principles and applied electromagnetic field theory basics.	'	'
B1B31EOS	Electric circuits	Z,ZK	6
The subject descr	ibes fundamental methods of electrical circuit analysis. The aim is to unify different level of knowledge of students coming from school	ols of different cat	egories and
	owledge necessary for next subjects. It presents the difference among physical circuit and its models, and then it presents the behavio		
in DC circuits and in	n sinusoidal steady state as well as transients, caused by changes in the circuit. Acquired knowledge should, among other things, also l	oe used for critica	assessment
	of the results of the analysis and simulation of electrical circuits by means of software tools.		
B1B34EPS	Elektronics for Heavy-current engeneering	KZ	4
	rent basic passive and active electronic components. Structure, physical and circuit properties of components. Component behavior v	•	
and large analog	digital and optical signals. More complex circuit systems and communication technologies. Measuring the most important application	ns of modern sen	niconductor
DADOOENAA	devices.	1/7	
B1B38EMA	Electrical Measurements	KZ	5
· -	cused to fundamentals of measurement and instrumentation. Based on the principle of the methods of electrical quantities measurem ce, capacitance and inductance) a structure and properties of measuring instruments are explained including principles of their corre		-
i irequericy, resistan	estimation. Fundamentals of magnetic measurements close the course.	ст аррпсалоп апо	an accuracy
B1BPROJ4	Bachelor project	Z	4
	Bachelor thesis	Z	15
BBAP15		7	1
BEZB	Safety in Electrical Engineering for a Bachelor's Degree	_	0
	safety course is to give the students basic knowledge of electrical equipment and installation as to avoid danger arising from operation Imentals of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to worl		•
BEZZ		7	0
	Basic Health and Occupational Safety Regulations e worked out based on The Training Scheme for Health and Occupational Safety designed for employees and students of the Czech **Table 1.1 **Table 2.2 **Table 3.2 **Table 3	Cochnical Univers	1
"	d by the Rector's Office of the CTU. Safety is considered one of the basic duties of all employees and students of the Czech		
Willow Was provide	regulations forms an integral and permanent part of qualification requirements. This program is obligatory.	Janii ana Occupa	lional caloty
TV-V1	Physical education	Z	1
TVKLV	Physical Education Course		0
TVKZV	Physical Education Course	Z	0
TVV	Physical education	Z	0
1 0 0			

For updated information see http://bilakniha.cvut.cz/en/f3.html Generated: day 2025-11-05, time 20:28.