

Recommended pass through the study plan

Name of the pass: Electrical Engineering, Power Engineering and Management

Faculty/Institute/Others: Faculty of Electrical Engineering

Department:

Pass through the study plan: Electrical Engineering, Power Engineering and Management

Branch of study guaranteed by the department: Common courses

Guarantor of the study branch:

Program of study: Electrical Engineering, Power Engineering and Management

Type of study: Bachelor full-time

Note on the pass:

Coding of roles of courses and groups of courses:

P - compulsory courses of the program, PO - compulsory courses of the branch, Z - compulsory courses, S - compulsory elective courses, PV - compulsory elective courses, F - elective specialized courses, V - elective courses, T - physical training courses

Coding of ways of completion of courses (KZ/Z/ZK) and coding of semesters (Z/L):

KZ - graded assesment, Z - assesment, ZK - examination, L - summer semester, Z - winter semester

Number of semester: 1

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
BEZB	Safety in Electrical Engineering for a Bachelor's Degree <i>Ivana Nová, Radek Havlíček, Vladimír Kůla Radek Havlíček Vladimír Kůla (Gar.)</i>	Z	0	2BP+2BC	Z,L	P
B0B01LAGA	Linear Algebra <i>Jiří Velebil, Daria Pavlova, Jakub Rondoš, Alena Gollová, Josef Dvořák, Matěj Dostál Jiří Velebil Jiří Velebil (Gar.)</i>	Z,ZK	7	4P+2S	Z	P
B0B01MA1A	Mathematical Analysis 1 <i>Josef Dvořák, Veronika Sobotíková, Natalie Žukovec, Jakub Staněk Veronika Sobotíková Veronika Sobotíková (Gar.)</i>	Z,ZK	6	4P+2S	Z	P
B0B99PRPA	Procedural Programming <i>Stanislav Vitek Stanislav Vitek Stanislav Vitek (Gar.)</i>	KZ	4	2P+2C	Z	P
BEZZ	Basic Health and Occupational Safety Regulations <i>Ivana Nová, Radek Havlíček, Vladimír Kůla Radek Havlíček Vladimír Kůla (Gar.)</i>	Z	0	2BP+2BC	Z	P
B1B14ZEL1	Fundamentals of Electrotechnical Engineering <i>Ivana Nová, Jiří Beranovský, Vít Hlinovský Ivana Nová</i>	KZ	4	2P+2C	Z	P
B1B16MME	Macro and Microeconomics <i>Lubomír Lízal, Josef Černošous, Jan Jandera, Blanka Kučerková, Miroslav Vitek, Alena Tůmová Alena Tůmová Lubomír Lízal (Gar.)</i>	Z,ZK	5	2P+2S	Z	PZ
2018_BEEMH	Humanitní předměty <i>B0B16ET1,B0B16FIL,..... (see the list of groups below)</i>	Min. cours. 1 Max. cours. 9	Min/Max 4/28			PV

Number of semester: 2

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i>	Completion	Credits	Scope	Semester	Role
B0B01DRN	Diferencial Equations and Numerical Analysis <i>Jakub Rondoš, Josef Dvořák, Natalie Žukovec, Jakub Staněk, Petr Habala, Daniel Gromada Petr Habala Petr Habala (Gar.)</i>	Z,ZK	4	2P+2C	L	P
B1B02FY1	Physics 1 <i>Petr Koníček Petr Koníček Petr Koníček (Gar.)</i>	Z,ZK	8	4P+1L+2C	L	P
B0B01MA2A	Mathematical Analysis 2 <i>Veronika Sobotíková, Jaroslav Tišer, Martin Křepela, Miroslav Korbelař, Hana Turčinová Jaroslav Tišer Jaroslav Tišer (Gar.)</i>	Z,ZK	6	4P+2S	L	P
B1B13PPS	Industrial computer systems <i>Michal Brejcha Michal Brejcha Michal Brejcha (Gar.)</i>	Z,ZK	4	2P+2L	L	P
B1B15VYA	Computational Applications <i>Miroslav Müller, Jan Kyncl Jan Kyncl (Gar.)</i>	KZ	4	2P+2C	L	P
2018_BEEMVOL	Volitelné předměty	Min. cours. 0	Min/Max 0/999			V

List of groups of courses of this pass with the complete content of members of individual groups

Kód	Name of the group of courses and codes of members of this group (for specification see here or below the list of courses)			Completion	Credits	Scope	Semester	Role
2018_BEEMH	Humanitní předměty			Min. cours. 1 Max. cours. 9	Min/Max 4/28			PV
B0B16ET1	Ethic 1	B0B16FIL	Philosophy	B0B16F11	Philosophy 1			
B0B16HTE	History of technology and econom ...	B0B16HT1	History of science and technolog ...	B0B16HI1	History 1			
B0B16MPS	Psychology	B0B16MPL	Psychology for managers	A003TV	Physical Education			
2018_BEEMVOL	Volitelné předměty			Min. cours. 0	Min/Max 0/999			V

List of courses of this pass:

Code	Name of the course	Completion	Credits
A003TV	Physical Education	Z	2
B0B01DRN	Differential Equations and Numerical Analysis This course introduces students to the classical theory of ordinary differential equations (separable and linear ODEs) and also to basics of numerical methods (errors in calculations and stability, numerical solutions of algebraic and differential equations and their systems). The course takes advantage of the synergy between theoretical and practical point of view.	Z,ZK	4
B0B01LAGA	Linear Algebra The course covers introductory topics of linear algebra. It begins with fundamental concepts related to vector spaces and linear transform (such as linear dependence and independence of vectors, bases, coordinates of vectors, etc.). The next part of the course is devoted to matrix theory (determinants, inverse matrix, matrices of linear transformation, eigenvalues and eigenvectors). Applications include solving systems of linear equations, geometry in three-dimensional space (including dot and cross products), and the singular value decomposition of a matrix.	Z,ZK	7
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 The subject covers an introduction to the differential and integral calculus in several variables and basic relations between curve and surface integrals. Other part contains function series and power series with application to Taylor and Fourier series.	Z,ZK	6
B0B16ET1	Ethic 1 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 human 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 communal answers.	KZ	4
B0B16F11	Philosophy 1 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 with recent problems of science, technology, economics and politics.	KZ	4
B0B16FIL	Philosophy 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 with recent problems of science, technology, economics and politics.	ZK	2
B0B16HI1	History 1	KZ	4
B0B16HT1	History of science and technology 1	KZ	4
B0B16HTE	History of technology and economic	ZK	2
B0B16MPL	Psychology for managers	ZK	2
B0B16MPS	Psychology	Z,ZK	4
B0B99PRPA	Procedural Programming	KZ	4
B1B02FY1	Physics 1 The basic course of physics at the Faculty of Electrical Engineering - Physics 1, is devoted to the introduction into two important areas of physics. The first one is a classical mechanics and the second one is the electric and magnetic field. Within the framework of the classical mechanics, the students study the particle kinematics; dynamics of the mass particle, system of mass particles and rigid bodies. The students should be able to solve basic problems dealing with the description of mechanical systems, which they can meet during their further studies. The classical mechanics is followed by the relativistic mechanics, electric and magnetic field - both stationary as well as non-stationary. The students can use the facts gained in this course in the study of electrical circuits, theory of electrotechnical materials or radioelectronics. Apart of this, the knowledge gained in this course is required for the study of the consecutive course Physics 2.	Z,ZK	8
B1B13PPS	Industrial computer systems The subject is focused on basic knowledges about computer control systems used in electrotechnic engineering and energetics. Students works with hardware for data acquisition and data processing, software tools and application examples. There are presented elementary digital circuits, the representation of numbers and their processing in microcomputer and fundamental block of microprocessor and microcomputer. The single chip microcomputer, embedded application, industrial PC and design to industrial condition are presented.	Z,ZK	4
B1B14ZEL1	Fundamentals of Electrotechnical Engineering 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.	KZ	4

B1B15VYA	Computational Applications	KZ	4
B1B16MME	Macro and Microeconomics	Z,ZK	5
Basic economic terms, market, law of demand, law of supply, market equilibrium, price regulation, price and income elasticities, consumer's behavior, producer's behavior, cost, revenue, profit, market failure, monopoly, government macroeconomic policy, gross domestic product, multipliers, money, inflation, banking system, monetary policy, labor market, business cycle, fiscal policy, foreign trade policy, comparative advantage, CR and EU, Euro.			
BEZB	Safety in Electrical Engineering for a Bachelor's Degree	Z	0
The purpose of the safety course is to give the students basic knowledge of electrical equipment and installation as to avoid danger arising from operation of it. This introductory course contains fundamentals of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to work on electrical equipment.			
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.			

For updated information see <http://bilakniha.cvut.cz/en/f3.html>

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