Recomended 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 guranteed 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)* *Tutors, **authors** and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
BEZB	**Safety in Electrical Engineering for a Bachelor´s Degree** *Ivana Nová, Radek Havlíček, Vladimír Kůla **Radek Havlíček** Vladimír Kůla (Gar.)*	Z	0	2BP+2BC	Z,L	P
B0B01LAG	**Linear Algebra** *Daniel Gromada, Jiří Velebil, Jakub Rondoš, Natalie Žukovec, Matěj Dostál **Jiří Velebil** Jiří Velebil (Gar.)*	Z,ZK	8	4P+2S	Z	P
B0B16MME	**Macro and Microekonomics**	Z,ZK	4	2P+2S	Z	P
B0B01MA1	**Mathematical Analysis 1** *Martin Křepela, Josef Tkadlec, Josef Dvořák, Veronika Sobotíková **Josef Tkadlec** Josef Tkadlec (Gar.)*	Z,ZK	7	4P+2S	Z,L	P
B0B99PRP	**Procedural Programming**	Z,ZK	6	2P+2C	Z	P
BEZZ	**Basic Health and Occupational Safety Regulations** *Ivana Nová, Radek Havlíček, Vladimír Kůla **Radek Havlíček** Vladimír Kůla (Gar.)*	Z	0	2BP+2BC	Z	P
B1B14ZEL	**Fundamentals of Electrotechnical Engineering**	KZ	3	2P+2C	Z	P
2015_BEEMH	**Humanitní předměty** *B0B16ET1,B0B16FIL,..... (see the list of groups below)*	Min. cours. 1 Max. cours. 9	Min/Max 4/28			P

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)* *Tutors, **authors** and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
B0B01DRN	**Differencial Equations and Numerical Analysis** *Daniel Gromada, Jakub Rondoš, Josef Dvořák, Petr Habala, Jakub Staněk **Petr Habala** Petr Habala (Gar.)*	Z,ZK	4	2P+2C	L	P
B1B31EOS	**Electric circuits** *Martin Pokorný **Martin Pokorný** Martin Pokorný (Gar.)*	Z,ZK	6	3P+2S	Z	P
B1B02FY1	**Physics 1** *Petr Koníček **Petr Koníček** Petr Koníček (Gar.)*	Z,ZK	8	4P+1L+2C	L	P
B0B01MA2	**Mathematical Analysis 2** *Martin Bohata, Miroslav Korbelář, Petr Hájek, Jaroslav Tišer, Karel Pospíšil, Paola Vivi, Hana Turčinová **Martin Bohata** Jaroslav Tišer (Gar.)*	Z,ZK	7	4P+2S	L,Z	P
B1B15VYA	**Computational Applications** *Jan Kyncl Jan Kyncl (Gar.)*	KZ	4	2P+2C	L	P

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
2015_BEEMH	Humanitní předměty	Min. cours. 1 Max. cours. 9	Min/Max 4/28			P

B0B16ET1	Ethic 1	B0B16FIL	Philosophy	B0B16FI1	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

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
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.			
B0B01LAG	Linear Algebra	Z,ZK	8
The course covers the initial parts of linear algebra. Firstly, the basic notions of a linear space and linear mappings are covered (linear dependence and independence, basis, coordinates, etc). The calculus of matrices (determinants, inverse matrices, matrices of a linear map, eigenvalues and eigenvectors, diagonalisation, etc) is covered next. The applications include solving systems of linear equations, the geometry of a 3D space (including the scalar product and the vector product) and SVD.			
B0B01MA1	Mathematical Analysis 1	Z,ZK	7
The aim of the course is to introduce students to basics of differential and integral calculus of functions of one variable.			
B0B01MA2	Mathematical Analysis 2	Z,ZK	7
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.			
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 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.			
B0B16FI1	Philosophy 1	KZ	4
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.			
B0B16FIL	Philosophy	ZK	2
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.			
B0B16HI1	History 1	KZ	4
B0B16HT1	History of science and technology 1	KZ	4
B0B16HTE	History of technology and economic	ZK	2
B0B16MME	Macro and Microekonomics	Z,ZK	4
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.			
B0B16MPL	Psychology for managers	ZK	2
B0B16MPS	Psychology	Z,ZK	4
B0B99PRP	Procedural Programming	Z,ZK	6
B1B02FY1	Physics 1	Z,ZK	8
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.			
B1B14ZEL	Fundamentals of Electrotechnical Engineering	KZ	3
The course extends necessary knowledge of the technical documentation, technical text and its presentation. The second half of the semester isfocused on an explanation and practicing of basics electrotechnics so that knowledge of students are increased to the level needed in the next semesters.			
B1B15VYA	Computational Applications	KZ	4
B1B31EOS	Electric circuits	Z,ZK	6
The subject describes fundamental methods of electrical circuit analysis. The aim is to unify different level of knowledge of students coming from schools of different categories and form the basis of knowledge necessary for next subjects. It presents the difference among physical circuit and its models, and then it presents the behavior of basic ideal circuit elements			

in DC circuits and in sinusoidal steady state as well as transients, caused by changes in the circuit. Acquired knowledge should, among other things, also be used for critical assessment of the results of the analysis and simulation of electrical circuits by means of software tools.			
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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