Study plan

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

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: Follow-up master combined

Required credits: 120 Elective courses credits: 0 Sum of credits in the plan: 120

Note on the plan:

Name of the block: Compulsory courses in the program

Minimal number of credits of the block: 61

The role of the block: P

Code of the group: 2018_MEEMDIP-K Name of the group: Diploma Thesis

Requirement credits in the group: In this group you have to gain 25 credits Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 25 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
BDIP25	Diploma Thesis	Z	25	22s	L	Р

Characteristics of the courses of this group of Study Plan: Code=2018_MEEMDIP-K Name=Diploma Thesis

BDIP25	Diploma Thesis	Ζ	25	ı
Independent final comp	rehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his o	or her branch of s	tudy, which will	l
he specified by branch	department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehen	sive final examin	ation	ı

Code of the group: 2018_MEEMH-K Name of the group: Humanities subjects

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:

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
BD0M16FIL	Philosophy 2	Z,ZK	5	14KP+6KS	L	Р
BD0M16HVT	History of science and technology 2	Z,ZK	5	14KP+6KS	L	Р
BD0M16PSM	Psychology Milana ížek Hrubá, Jaroslav Knápek Josef ernohous Ji í Vaší ek (Gar.)	Z,ZK	5	14KP+6KS	Z,L	Р
BD0M16TEO	Theology	Z,ZK	5	14KP+6KS	L	Р

Characteristics of the courses of this group of Study Plan: Code=2018_MEEMH-K Name=Humanities subjects

BD0M16FIL	Philosophy 2	Z,ZK	5
BD0M16HVT	History of science and technology 2	Z,ZK	5
This subject traces histo	rical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate s	tudents' interest i	the history and

This subject traces historical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate students' interest in the history and traditions of the subject, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life and the influence of technical engineers

BD0M16PSM	Psychology	Z,ZK	5
BD0M16TEO	Theology	Z,ZK	5

This subject provides to students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the basic theologic disciplines are gone through. The subject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who want to get know Christianity - religion from which graws our civilization up.

Code of the group: 2018_MEEMP-K

Name of the group: Compulsory subjects of the programme

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

Requirement courses in the group: In this group you have to complete 6 courses

Credits in the group: 31 Note on the group:

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
BD1M16EKE1	Economy of Power Industry Ji í Vaší ek, Old ich Starý, Tomáš Králík Tomáš Králík Old ich Starý (Gar.)	Z,ZK	5	14KP+6KC	L	Р
BD1M15IAP	Engineering Applications Jan Kyncl	Z,ZK	5	14KP+6KC	Z	Р
BD1M13JAS1	Quality and Reliability Pavel Mach, Martin Molhanec Pavel Mach Pavel Mach (Gar.)	Z,ZK	6	14KP+6KC	Z	Р
BD1MPROJ	Individual project Josef ernohous, Ji í Vaší ek, Miroslav Vítek, Zden k Müller, Stanislav Bou ek Old ich Starý Old ich Starý (Gar.)	Z	5	0p+4s	Z	Р
BD1M15PPE1	Elements and Operation of Electrical Power Systems Stanislav Bou ek, Jan Hlavá ek	Z,ZK	5	14KP+6KS	Z	Р
BD1M14SSE	Machinery and Structures of Power Plants Petr Ko árník Petr Ko árník (Gar.)	Z,ZK	5	14KP+6KC	Z	Р

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

BD1M16EKE1	Economy of Power Industry	Z,ZK	5
Fundamentals of finance	ing of power companies. Cost structure of power generation and distribution. Prices and tariff systems for power, heat and ga	s production and	distribution.
Examples of economic	evaluation and investment appraisal of the typical project in power sector. Renewable energy sources, externalities. Energy p	olicy and energy la	aw in CR.
Liberalization and power	r market development.		

BD1M15IAP	Engineering Applications	Z,ZK	5
BD1M13JAS1	Quality and Reliability	Z,ZK	6

Terminology and definitions from the area of quality and reliability and their control, philosophy of quality, systems of quality control in the world. Reliability as a part of quality. Basic definitions from the area of reliability, basic distributions used in reliability and their basic characteristics. Back-up using a warm and cold standby, types of warm and cold standbys. Reliability of components and systems, calculation of reliability using composition and decomposition. and using a method of a list. Basic statistical methods and tools joined with quality control, managerial tools for quality control. Techniques FMEA and QFFD, house of quality. Capability of a process. Taguchi loss function. Audits. Statistical inspection.

BD1MPROJ	Individual project	Z	5			
Independent work in the form of a project. A student will choose a topic from a list of topics specified by branch department. The project will be defended within the framework of a						
subject.						

	Subject.			
	BD1M15PPE1	Elements and Operation of Electrical Power Systems	Z,ZK	5
	BD1M14SSE	Machinery and Structures of Power Plants	Z,ZK	5
==	d characteristics.			

Name of the block: Povinné p edm ty zam ení Minimal number of credits of the block: 44

The role of the block: PZ

Code of the group: 2018_MEEMPPS4-K

Name of the group: Compulsory subjects of the specialization

Requirement credits in the group: In this group you have to gain 44 credits

Requirement courses in the group: In this group you have to complete 9 courses

Credits in the group: 44

Note on the group:

Specializace Management energetiky a elektrotechniky

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
BD1M16EKL	Ecology and economy Jaroslav Knápek	Z,ZK	5	21KP+3KS	Z	PZ
BD1M16EKM	Econometrics and economic applications Šerzod Tašpulatov, Lubomír Lízal Lubomír Lízal (Gar.)	Z,ZK	4	14KP+6KS	L	PZ

BD1M16EVE	Economics of Power Generation	Z,ZK	5	14KP+6KS	L	PZ
BD1M16FIM1	Financial Management Old ich Starý	Z,ZK	5	14KP+6KS	L	PZ
BD1M16FIU	Financial accounting Ji í Vaší ek	Z,ZK	5	14KP+6KS	Z	PZ
BD1M16MES	Management and Economics of Power Systems Old ich Starý, Tomáš Králík Tomáš Králík Old ich Starý (Gar.)	Z,ZK	5	14KP+6KS	Z	PZ
BD1M16MNR	Managerial Decision Making Jaroslav Knápek	Z,ZK	5	14KP+6KS	Z	PZ
BD1M16MAR	Marketing	Z,ZK	5	14KP+6KS	L	PZ
BD1M16OVY	Operations Research Jaroslav Knápek	Z,ZK	5	14KP+6KS	L	PZ

	f the courses of this group of Study Plan: Code=2018_MEEMPPS4-K Name=Compulsory sub		
BD1M16EKL	Ecology and economy	Z,ZK	5
	nmental protection. Sustainable development. Global environmental problems and their aspects. Greenhouse effect and clima	0	,
	mental impacts. Support schemes for renewable energy sources utilization. Economic effectiveness of renewable energy sour	rces projects. Regul	atory and
	for economic activities regulation. Externalities. Environmental indicators.	1	
BD1M16EKM	Econometrics and economic applications	Z,ZK	4
•	s, econometric models, input-output models, modelling of demand, time series models, production functions, linear regressic	on models, simultane	eous equations
models, econometric a	analysis of economic situation		
BD1M16EVE	Economics of Power Generation	Z,ZK	5
Power sources overvie	ew, energy processes analysis.		
BD1M16FIM1	Financial Management	Z,ZK	5
Principles of finance, r	resent value and alternative cost of capital, net present value, valuation of bonds and stocks, investment decision and net pre	esent value, risk and	dalternative
	d return, lease or buy, taxes, inflation and return, financial and real options, option valuation and application, hedging, short teri	m finance, cash flow	/ management.
	d return, lease or buy, taxes, inflation and return, financial and real options, option valuation and application, hedging, short teri Financial accounting	m finance, cash flow	management. 5
cost of capital, risk and		Z,ZK	5
cost of capital, risk and BD1M16FIU Principles of accounting	Financial accounting	Z,ZK d accounting. Balan	5
cost of capital, risk and BD1M16FIU Principles of accounting	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and	Z,ZK d accounting. Balan	5
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statement.	Z,ZK d accounting. Balan ents. Hello.	5 ce sheet, profit
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statemed Management and Economics of Power Systems	Z,ZK d accounting. Balan ents. Hello.	5 ce sheet, profit
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statemed Management and Economics of Power Systems no overview of the various aspects of power supply with special emphasis on power management. The course characterises en	Z,ZK d accounting. Balan ents. Hello.	5 ce sheet, profit
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of prices BD1M16MNR	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statement. Management and Economics of Power Systems on overview of the various aspects of power supply with special emphasis on power management. The course characterises end and tariffs. Energy market principles and operational decision making are integral parts of the course as well.	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma	5 ce sheet, profit 5 rginal costs for
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of prices BD1M16MNR	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statement. Management and Economics of Power Systems on overview of the various aspects of power supply with special emphasis on power management. The course characterises en and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objection.	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma	5 ce sheet, profit 5 rginal costs for
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of prices BD1M16MNR System approach and	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statement. Management and Economics of Power Systems on overview of the various aspects of power supply with special emphasis on power management. The course characterises en and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objection.	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma	5 ce sheet, profit 5 rginal costs for
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of price: BD1M16MNR System approach and Expert systems, Clust BD1M16MAR	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statemed. Management and Economics of Power Systems of overview of the various aspects of power supply with special emphasis on power management. The course characterises et and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objecter analysis	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma Z,ZK tives, Stochastic pro	5 ce sheet, profit 5 rginal costs for 5 ogramming,
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of price: BD1M16MNR System approach and Expert systems, Clust BD1M16MAR The role and functions	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statemed Management and Economics of Power Systems in overview of the various aspects of power supply with special emphasis on power management. The course characterises et a and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objecter analysis Marketing	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma Z,ZK tives, Stochastic pro	5 ce sheet, profit 5 rginal costs for 5 ogramming,
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of price: BD1M16MNR System approach and Expert systems, Clust BD1M16MAR The role and functions	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statemed. Management and Economics of Power Systems on overview of the various aspects of power supply with special emphasis on power management. The course characterises et a and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objecter analysis Marketing of the marketing management. Marketing research and marketing information system. Concepts of marketing strategy. The us	Z,ZK d accounting. Balan ents. Hello. Z,ZK nergy costs and ma Z,ZK tives, Stochastic pro	5 ce sheet, profit 5 rginal costs for 5 ogramming,
cost of capital, risk and BD1M16FIU Principles of accountir and loss account. Cas BD1M16MES This course will give a determination of prices BD1M16MNR System approach and Expert systems, Clust BD1M16MAR The role and functions Marketing-mix. Produc BD1M16OVY	Financial accounting g. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated statement in overview of the various aspects of power supply with special emphasis on power management. The course characterises end and tariffs. Energy market principles and operational decision making are integral parts of the course as well. Managerial Decision Making Managerial Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objecter analysis Marketing of the marketing management. Marketing research and marketing information system. Concepts of marketing strategy. The use that and service policy, pricing and contractation policy, communication, distribution. Controlling and audit.	Z,ZK d accounting. Balan ants. Hello. Z,ZK nergy costs and ma Z,ZK tives, Stochastic product life cycl	5 ce sheet, profit 5 rginal costs for 5 ogramming, 5 de and portfolio.

Name of the block: Compulsory elective courses

Minimal number of credits of the block: 15

The role of the block: PV

Code of the group: 2018_MEEMPV2-K

Name of the group: Compulsory elective subjects of the specialization

Requirement credits in the group: In this group you have to gain at least 15 credits (at most 45)

Requirement courses in the group: In this group you have to complete at least 3 courses (at most 9)

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
BD1M16CTR1	Controlling	Z,ZK	5	14KP+6KS	Z	PV
BD1M16DES	Power Transport Systems Miroslav Vítek	Z,ZK	5	14KP+6KS	Z	PV
BD1M16EUE1	Economy of Energy Use Ji í Beranovský Ji í Beranovský (Gar.)	Z,ZK	5	14KP+6KS	L	PV
BD1M15ETT	Electrical Heat Jan Kyncl	Z,ZK	5	14KP+6KS	Z	PV
BD1M16ENI	Environmental Engineering	Z,ZK	5	14KP+6KS	Z,L	PV
BD1M16RES	Development of Energy Systems	Z,ZK	5	14KP+6KS	L	PV
BD1M16JAK	Quality management	Z,ZK	5	14KP+6KS	Z	PV

	Statistical methods in economics Serzod Tašpulatov	Z,ZK	5	14KP+6KC	L	PV
haracteristics (of the courses of this group of Study Plan: Code=2018_MEEMPV2	2-K Name=Com	pulsory	elective s	subjects c	of the
BD1M16CTR1	Controlling			Z	,ZK	5
The aim of the course	e is to present Management Control as a modern approach to Management of Enterprise,	based on the Proces	s and Activi	ty Based Ma	nagement wl	nich suppo
	y the application of Project Management principles. The focus is on the integrative potential	-		-	-	
	oject Management. Special attention is paid to technical-financial integration and its impac	· ·	-	_	-	
_	company not merely to survive, but also to achieve high performance. The computerized means are larger to the computerized means are larger to the computerized to the	nodels are used for p	resentation	key principle	es, procedure	s and also
	e controlled entities and used managerial tools.			7	71/	
BD1M16DES	Power Transport Systems	anaray farma Thatia	road railwa		Z,ZK	5
	d on economical aspects of design and operation of various technical systems for various of system, cable car and convenyor belt transport for solid fuel and mainly grid for electricity (p		road, railwa	iy and snip ti	ransport of sc	olia ana liqu
BD1M16EUE1	Economy of Energy Use	ower) transport.		7	.ZK	5
	PECONOMY OF EMERGY OSE ergy management of company, buildings or energy systems. Energy need and consumption	o oporav balanco E	noray chara	1	, I	-
-	rgy audit and feasibility study, optimization of energy management of energy systems. Pric					secondary
BD1M15ETT	Electrical Heat	oo ana tanno, ooono	ing and ima		,ZK	5
				_	Z,ZK	5
BD1M16ENI	Environmental Engineering	Langingaring Duint				-
	on describing the interdisciplinary relationships of living and non-living nature with electricates, new methods and techniques are being developed that either focus on predictive envir			_	-	
· · · · · · · · · · · · · · · · · · ·	ourse discusses both routinely used technologies as well as prototype and laboratory tech processes provides the ideal motivation and platform for developing and testing new innov				-	
_	CH and selected excursions. Laboratory facilities have been created for the course at the F		ourse is con	приетненией	by laboratory	WOIK Calli
		LL CTO IIIT lague.		7	71/	
BD1M16RES	Development of Energy Systems	f a a a la mu a a d la val a	fused teebs		.,ZK	5
•	sic questions of power stations design is solved. This design is discussed from viewpoint o	•,				
-	al and renewable energy resources. These kinds of energy resources are considered as the e subject provides overview of practical application of modern technologies to guarantee the	-			пі от арргорг	iate power
		ie development of er	lergelic syst		71/	
D1M16JAK	Quality management	(0140)	2 0004 B		,ZK	5
	nagement (QM), Current approaches to quality management, quality management system			_		
	ntrol of documents and records, Internal audits of QMS, Continual improvement of QMS, In	ntegrated manageme	ent, Statistic	methods in	QIVI, Accredit	ation and
ertification					777	
BD1M16STA	Statistical methods in economics			I	:,ZK	.5
=	istical series. Assortment. Distributions of frequencies. One-dimensional descriptive characters of basic above the sixthesis to be seen that the sixthesis that the sixthesis to be seen that the sixthesis that the si					
	tes of basic characteristics. Interval estimates of basic characteristics. Hypothesis testing					
	lexs. Multifactor indexs. Correlation and regression, Basic Concepts. Measurement of dep s-trends and extrapolation.	endence intensity. 11	me series, c	oncepts, qua	alities. Chroni	ologicai
wordge . Time series	tionas ana extrapolation.					
lame of the	block: Elective courses					
linimal num	ber of credits of the block: 0					
linimal num	ber of credits of the block: 0					
	ber of credits of the block: 0					
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Inimal num The role of the Code of the Q	ber of credits of the block: 0 ne block: V group: MTV					
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linimal num he role of the ode of the ame of the equirement redits in the	proup: MTV group: Physical education credits in the group: courses in the group: group: 0 group: Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members)	Completion	Credits	Scope	Semester	Role
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linimal num he role of the ode of the ame of the equirement redits in the ote on the gode	ber of credits of the block: 0 ne block: V group: MTV group: Physical education credits in the group: courses in the group: group: 0 group: 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.) Physical education	Completion	Credits 0	Scope 0+2	Semester Z,L	Role
linimal num he role of the ode of the g ame of the equirement equirement redits in the ote on the g	ber of credits of the block: 0 ne block: V group: MTV group: Physical education credits in the group: courses in the group: group: 0 group: 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.) Physical education Physical Education			-		
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linimal num he role of the ode of the g ame of the equirement equirement redits in the ote on the g code VV 003TV V-V1	ber of credits of the block: 0 ne block: V group: MTV group: Physical education credits in the group: courses in the group: group: 0 group: 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.) Physical education Physical education Ji f Drnek Physical education	Z	0 2	0+2 0+2	Z,L L,Z	V
linimal num he role of the ode of the o ame of the equirement equirement redits in the ote on the o code VV 003TV V-V1 VV0	ber of credits of the block: 0 ne block: V group: MTV group: Physical education credits in the group: courses in the group: group: 0 group: 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.) Physical education Physical education Physical education Physical education Physical education Physical education	Z Z Z Z Z Z	0 2 1 0	0+2 0+2 0+2 0+2	Z,L L,Z Z,L Z,L	V V V V
linimal num he role of the ode of the o ame of the equirement redits in the ote on the o code VV 003TV V-V1 VV0 VKLV	ber of credits of the block: 0 ne block: V group: MTV group: Physical education credits in the group: courses in the group: group: 0 group: 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.) Physical education Physical education Course	Z Z Z Z Z Z Z Z Z	0 2 1 0	0+2 0+2 0+2 0+2 7dní	Z,L L,Z Z,L Z,L	V V V
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IVV	Physical education	Z	0
A003TV	Physical Education	Z	2
TV-V1	Physical education	Z	1
TVV0	Physical education	Z	0
TVKLV	Physical Education Course	Z	0
TVKZV	Physical Education Course	Z	0
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Code of the group: 2018_MEEMVOL-K 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
BD0M16FIL	Philosophy 2	Z,ZK	5
BD0M16HVT	History of science and technology 2	Z,ZK	5
traditions of the subject	orical developments in electrical engineering branches in the world and in the Czech Lands. Its ultimate goal is to stimulate stude, while highlighting the developments in technical education and professional organizations, the process of shaping scientific life engineers	and the influence	of technica
BD0M16PSM	Psychology	Z,ZK	5
BD0M16TEO	Theology	Z,ZK	5
	o students the basic orientation in christian theology and requires no special previous education. After short philosophic lecture the ubject is determined not only to believer students who want to know the reliable theologic grounding but also above all to ones who religion from which graws our civilization up.	want to get know	-
BD1M13JAS1	Quality and Reliability	Z,ZK	6
Terminology and defin	itions from the area of quality and reliability and their control, philosophy of quality, systems of quality control in the world. Reliabi	ity as a part of qu	ality. Basic
	ea of reliability, basic distributions used in reliability and their basic characteristics. Back-up using a warm and cold standby, types		-
	ts and systems, calculation of reliability using composition and decomposition. and using a method of a list. Basic statistical method	-	-
	erial tools for quality control. Techniques FMEA and QFFD, house of quality. Capability of a process. Taguchi loss function. Audits.		
BD1M14SSE	Machinery and Structures of Power Plants	Z,ZK	5
	to acquaint students with forms of energy transformation in power plants, describing the function of power facilities, their structure,		
BD1M15ETT	Electrical Heat	Z,ZK	5
BD1M15IAP	Engineering Applications	Z,ZK	5
BD1M15PPE1	Elements and Operation of Electrical Power Systems	Z,ZK	5
BD1M16CTR1	Controlling	Z,ZK	5
key role played by Pro which guarantee the c	the application of Project Management principles. The focus is on the integrative potential of Management Control in the Manager ject Management. Special attention is paid to technical-financial integration and its impact. The emphasis is on Project Management ompany not merely to survive, but also to achieve high performance. The computerized models are used for presentation key prince wey links between the controlled entities and used managerial tools.	ent of innovation partial procedure	orocesses, s and also
BD1M16DES	Power Transport Systems	Z,ZK	5
The course is focused of	on economical aspects of design and operation of various technical systems for various energy forms. That is road, railway and sh fuel, district heating system, cable car and convenyor belt transport for solid fuel and mainly grid for electricity (power) transport	•	id and liqui
BD1M16EKE1		Z,ZK	5
Fundamentals of final	Economy of Power Industry ncing of power companies. Cost structure of power generation and distribution. Prices and tariff systems for power, heat and gas nic evaluation and investment appraisal of the typical project in power sector. Renewable energy sources, externalities. Energy po Liberalization and power market development.	production and di	stribution.
BD1M16EKL	Ecology and economy	Z,ZK	5
•	nmental protection. Sustainable development. Global environmental problems and their aspects. Greenhouse effect and climate on nmental impacts. Support schemes for renewable energy sources utilization. Economic effectiveness of renewable energy sources economic instruments for economic activities regulation. Externalities. Environmental indicators.	-	
BD1M16EKM	Econometrics and economic applications	Z,ZK	4
History of Econometrics	s, econometric models, input-output models, modelling of demand, time series models, production functions, linear regression models, and the contract of the c	dels, simultaneou	s equation
DD 4146=:::	models, econometric analysis of economic situation		
BD1M16ENI	Environmental Engineering on describing the interdisciplinary relationships of living and non-living nature with electrical engineering. By integrating electrical	Z,ZK	5
environmental practiconsequences. The consequences are consequences.	tices, new methods and techniques are being developed that either focus on predictive environmental protection from industrial in course discusses both routinely used technologies as well as prototype and laboratory technologies, mostly applicable to insitu re ocesses provides the ideal motivation and platform for developing and testing new innovative methods. The course is complemen	nfluences or addre mediation. Inspira	ess their tion from
environmental pract consequences. The c self-renewing natural pr	tices, new methods and techniques are being developed that either focus on predictive environmental protection from industrial incourse discusses both routinely used technologies as well as prototype and laboratory technologies, mostly applicable to insitu reocesses provides the ideal motivation and platform for developing and testing new innovative methods. The course is complemen out at CTU, UCT, IMCH and selected excursions. Laboratory facilities have been created for the course at the FEE CTU in Pragram of the course at the course at the FEE CTU in Pragram of the course at the course at the course at the course at the FEE CTU in Pragram of the course at the course	offluences or address mediation. Inspirated by laboratory value.	ess their tion from work carrie
environmental pract consequences. The conself-renewing natural practical by the self-renewing natural by t	tices, new methods and techniques are being developed that either focus on predictive environmental protection from industrial in course discusses both routinely used technologies as well as prototype and laboratory technologies, mostly applicable to insitu re ocesses provides the ideal motivation and platform for developing and testing new innovative methods. The course is complemen	offuences or address mediation. Inspirated by laboratory of gue. Z,ZK	ess their tion from

Organization and energy management of company, buildings or energy systems. Energy need and consumption, energy balance. Energy characterization of aggregate, secondary energy sources. Energy audit and feasibility study, optimization of energy management of energy systems. Prices and tariffs, economy and financial analysis.

			1
BD1M16EVE	Economics of Power Generation	Z,ZK	5
	Power sources overview, energy processes analysis.		1
BD1M16FIM1	Financial Management	Z,ZK	5
•	nce, present value and alternative cost of capital, net present value, valuation of bonds and stocks, investment decision and net prese		
cost of capital, risk	and return, lease or buy, taxes, inflation and return, financial and real options, option valuation and application, hedging, short term fin	ance, cash flow n	nanagement.
BD1M16FIU	Financial accounting	Z,ZK	5
•	nting. Assets, inventory and financial investment book keeping. Debt and equity capital. Cost, revenues and profit. Tax system and acc	•	
	ss account. Cash flow statement. Analysis of company's financial position. International accounting standards. Auditing, consolidated s	statements. Hello	
BD1M16JAK	Quality management	Z,ZK	5
History of quality r	nanagement (QM), Current approaches to quality management, quality management system (QMS) based on ISO 9001, Process ma	nagement, Quali	ty planning,
Metrology in QM,	Control of documents and records, Internal audits of QMS, Continual improvement of QMS, Integrated management, Statistic metho	ds in QM, Accred	litation and
	certification		
BD1M16MAR	Marketing	Z,ZK	5
The role and function	ons of the marketing management. Marketing research and marketing information system. Concepts of marketing strategy. The use of p	product life cycle	and portfolio.
ı	Marketing-mix. Product and service policy, pricing and contractation policy, communication, distribution. Controlling and audit	t.	
BD1M16MES	Management and Economics of Power Systems	Z,ZK	5
This course will give	e an overview of the various aspects of power supply with special emphasis on power management. The course characterises energ	costs and marg	inal costs for
	determination of prices and tariffs. Energy market principles and operational decision making are integral parts of the course as	well.	
BD1M16MNR	Managerial Decision Making	Z,ZK	5
System approach	and decision making, Decision models, Games theory, Decision making under uncertainty and risk, Decisions with multiple objective	s, Stochastic pro	gramming,
	Expert systems, Cluster analysis		
BD1M16OVY	Operations Research	Z,ZK	5
Art of modeling a	nd elements of decision models, Linear programming, Transportation problem, Integer linear programming, Introduction to graphs the	ory, Nonlinear pro	gramming,
	Dynamic programming, Monte Carlo simulation, Project management (CPM, PERT).		
BD1M16RES	Development of Energy Systems	Z,ZK	5
In this subject th	e basic questions of power stations design is solved. This design is discussed from viewpoint of ecology and level of used technology	. Special focus is	on future
importance of cla	ssical and renewable energy resources. These kinds of energy resources are considered as the most important factor of future develo	pment of approp	riate power
ind	dustry systems. The subject provides overview of practical application of modern technologies to guarantee the development of energ	etic systems.	
BD1M16STA	Statistical methods in economics	Z,ZK	5
Basic Concepts. S	tatistical series. Assortment. Distributions of frequencies. One-dimensional descriptive characteristics. Measures of variables, coefficie	ent of skewness, o	coefficient of
excess. Points esti	mates of basic characteristics. Interval estimates of basic characteristics. Hypothesis testing of basic characteristics. Individual indexs	number. Aggrega	ative indexs.
Variable-structu	re indexs. Multifactor indexs . Correlation and regression, Basic Concepts. Measurement of dependence intensity. Time series, concepte	ots, qualities. Chro	onological
	average . Time series - trends and extrapolation.		
BD1MPROJ	Individual project	Z	5
Independent wor	k in the form of a project. A student will choose a topic from a list of topics specified by branch department. The project will be defende	ed within the fram	ework of a
	subject.		
BDIP25	Diploma Thesis	Z	25
Independent final	comprehensive work for the Master's degree study programme. A student will choose a topic from a range of topics related to his or h	er branch of stud	y, which will
be specified l	by branch department or branch departments. The diploma thesis will be defended in front of the board of examiners for the comprehe	ensive final exami	nation.
TV-V1	Physical education	Z	1
TVKLV	Physical Education Course	Z	0
TVKZV	Physical Education Course	Z	0
TVV	Physical education	<u></u> Z	0
TVV0	Physical education	<u>Z</u>	0
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For updated information see http://bilakniha.cvut.cz/en/f3.html Generated: day 2025-06-28, time 05:20.