## Study plan

## Name of study plan: Software Engineering and Technology

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: Software Engineering and Technology

Type of study: Bachelor full-time

Required credits: 167 Elective courses credits: 13 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: 137

The role of the block: P

Code of the group: 2021\_BSITBAP Name of the group: Bachelor Project

Requirement credits in the group: In this group you have to gain 20 credits Requirement courses in the group: In this group you have to complete 1 course

Credits in the group: 20 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
BBAP20	Bachelor thesis Roman meila Roman meila (Gar.)	Z	20	12S	L,Z	Р

Characteristics of the courses of this group of Study Plan: Code=2021\_BSITBAP Name=Bachelor Project

DDAI 20 Dacrieloi triesis		achelor thesis	Z		J
---------------------------	--	----------------	---	--	---

Code of the group: 2021 BSITBBE

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

Basic health and occupational safety regulations

Requirement credits in the group: Requirement courses in the group:

Credits in the group: 0 Note on the group:

**BEZZ** 

•						
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=2021\_BSITBBE 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 oper	ation of it. This inti	roductory course
contains fundamentals	of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to work	on electrical equi	pment.

Ζ

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: 2021\_BSITP

Name of the group: Compulsory subjects of the programme

Requirement credits in the group: In this group you have to gain 117 credits

Requirement courses in the group: In this group you have to complete 22 courses

Credits in the group: 117

Note on the group:

Note on the gr	Name of the course / Name of the group of courses				1	
Code	(in case of groups of courses the list of codes of their members)  Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
B0B36DBS	Database Systems  Martin imná Martin imná Martin imná (Gar.)	Z,ZK	6	2P+2C+4C	) L	Р
B6B36DSA	Data Structures and Algorithms Karel Richta Karel Richta (Gar.)	Z,ZK	6	2P+3C+3D	L	Р
B6B16INS	Information Systems Pavel Náplava, Jan Ko í Pavel Náplava Pavel Náplava (Gar.)	KZ	4	2P+2S+3D	L	Р
B0M32KSB	Cryptography and Network Security Tomáš Van k Petr Hampl Tomáš Van k (Gar.)	Z,ZK	6	2P+2L+4C	Z	Р
B6B01LAG	Linear Algebra Ji í Velebil Ji í Velebil (Gar.)	Z,ZK	7	4P+2C+2C	L	Р
B6B01MAA	Mathematics Analysis Natalie Žukovec Natalie Žukovec (Gar.)	Z,ZK	5	2P+2S+2D	Z	Р
B6B36NSS	Design of Software Systems Ji í Šebek Ji í Šebek Ji í Šebek (Gar.)	Z,ZK	5	2P+2C+2D	L	Р
В6В36ОМО	Object-oriented design and Modeling David Kadle ek David Kadle ek David Kadle ek (Gar.)	Z,ZK	6	2P+2C+4D	Z	Р
B6B32PSI	Computer Networks Tomáš Van k, Leoš Bohá , Zbyn k Kocur <b>Ján Ku erák</b> Leoš Bohá (Gar.)	Z,ZK	5	2P + 2C + 3D	Z	Р
B6B36PCC	Programming in C/C++ Radek Havlí ek, Ingrid Nagyová, Karel Richta Karel Richta Karel Richta (Gar.)	Z,ZK	5	2P+2C+4C	Z	Р
B0B36PJV	Programming in Java Ji í Vok ínek, Martin Mudroch, Ladislav Serédi <b>Ji í Vok ínek</b> Ji í Vok ínek (Gar.)	Z,ZK	6	2P+3C+7C	L	Р
B6B36PM2	Management of Software Projects Miroslav Bureš, Karel Frajták Miroslav Bureš Miroslav Bureš (Gar.)	KZ	4	2P+2C+2D	Z	Р
B6B36SMP	Analysis and Modeling of Software Requirements  Martin Komárek Martin Komárek (Gar.)	Z,ZK	6	2P+3C+3D	L	Р
B6BPROJ6	Semestral Project Ji í Šebek, Jaroslav Sloup, Petr Pošík Jaroslav Sloup Jaroslav Sloup (Gar.)	Z	6	2s	L,Z	Р
B6B01PRA	Statistics and Probability Kate ina Helisová, Jakub Stan k, Miroslav Korbelá, Veronika Sobotíková Kate ina Helisová Kate ina Helisová (Gar.)	Z,ZK	5	2P+2S+1C	L	Р
B6B36TS1	Software Testing Miroslav Bureš, Karel Frajták Miroslav Bureš Miroslav Bureš (Gar.)	Z,ZK	5	2P+2C+2D	L	Р
B0B36ZAL	Introduction to Programming Ji í Vok ínek Ji í Vok ínek Ji í Vok ínek (Gar.)	Z,ZK	6	2P+2C+8D	Z	Р
B6B01ZDM	Introduction to Discrete Mathematics Jaroslav Tišer Jaroslav Tišer (Gar.)	Z,ZK	5	2P+2S+2D	Z	Р
B6B39ZMT	Foundations of Multimedia Production Roman Berka, František Rund Roman Berka Roman Berka (Gar.)	KZ	3	4P+4L+2C	Z	Р
B6B38ZPS	Basics of Computer Systems Ji í Novák <b>Ji í Novák</b> Ji í Novák (Gar.)	Z,ZK	6	4P+2L+2C	Z	Р
B6B36ZSO	Introduction to Project Management Pavel Náplava, Martin Dobiáš, Jitka Pinková Pavel Náplava Pavel Náplava (Gar.)	KZ	5	2P+2C+5C	Z	Р
B6B39ZWA	Foundations of Web Applications Martin Klíma, Martin Mudra Martin Klíma (Gar.)	Z,ZK	5	2P+2C+3D	Z	Р

Characteristics of the courses of this group of Study Plan: Code=2021\_BSITP Name=Compulsory subjects of the programme

80830082	Database Systems	Z,ZN	0
The course is designed	as a basic database course mainly aimed at the student ability to design a relational data model and to use the SQL langua	ge for data definit	ion as well as for
data querying and to ch	oose the appropriate degree of transaction isolation. Students will also get acquainted with the most commonly used indexin	g techniques, dat	abase system
architecture and their m	anagement. They will verify their knowledge during the elaboration of a continuously submitted seminar task.		

B6B36DSA	Data Structures and Algorithms	Z,ZK	6
B6B16INS	Information Systems	KZ	4

The goal of this course is to familiarise students with the information systems topic and information systems implementation principles. During the course, students are introduced to "on the market" existing types of systems and their usage in specific industry segments. Students are familiarised with the CRM, ERP, MRP and other types of information systems. The fundamental part of the course is the introduction to key ideas of an information system selection, evaluation of information system benefits, ways of information systems implementation and information system implementation based on the project management principles. The emphasis is on the initial customer analysis, customer insight and ability to decide whether it is better to implement any existing information system or to develop a new one from scratch. These factors determine the information system implementation success. At the end of the course information systems security, operation, support, maintenance, legislation impacts, and government information systems topics are discussed.

B0M32KSB	Cryptography and Network Security	Z,ZK	6
The Information Secu	rity course provides a complete source of information on the field of security of information systems and information technologi		rmation in today
society is created, tra	nsferred, stored in electronic form so information security is very important part of it. Technical background for information sec	curity is provided by	cryptology.
B6B01LAG	Linear Algebra	Z,ZK	7
B6B01MAA	Mathematics Analysis	Z,ZK	5
This course is an intr	duction to differential and integral calculus. It covers basic properties of functions, limits of functions, derivative and its applic		ylor polynomial)
and definite/indefinite	integral with its applications, sequences and series.		
B6B36NSS	Design of Software Systems	Z,ZK	5
B6B36OMO	Object-oriented design and Modeling	Z,ZK	6
B6B32PSI	Computer Networks	Z,ZK	5
B6B36PCC	<u> </u>	Z,ZK	5
	Programming in C/C++	_	
B0B36PJV	Programming in Java	Z,ZK	6
	the basics of algorithms and programming from the first semester and introduces students to the Java environment. The cour		
	The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, workir important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and kno	-	
	important topic is models of multitireaded applications and their implementation. Practical exercises of practical skills and kitcles and semester work, which will be submitted continuously through the source code version control system. The semester wo	_	
<del>-</del> ·	ency of the code, as well as points that take into account the quality of the source codes, their readability and reusability.	ork accorning cortains	or points for the
B6B36PM2	Management of Software Projects	KZ	4
B6B36SMP	Analysis and Modeling of Software Requirements	Z,ZK	6
rnis course covers tr graphic notation - UN	e topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowled	age on using the mo	st widely spread
• .		7 7	
B6BPROJ6	Semestral Project	Z	6
	k in form of a project. Student selects the subject of their project from the list of topics relevant to the studied specialization a		•
	nts. The project's subject can be closely related to the future Bachelor thesis. Further instructions for the selection and resolu selected department. Within this course the project is also defended.	illori or the projects	can be lound on
B6B01PRA		Z,ZK	5
	Statistics and Probability	1 '	_
	atroduced to the theory of probability and mathematical statistics, namely to the basic computing methods and their applications and mathematical statistics, namely to the basic computing methods and their applications are proportional methods and their applications are proportional methods and their applications are provided in the provided and their applications.	•	
	pability and mathematical statistics. The first part is focused on classical probability, including conditional probability. The next partial probability and mathematical statistics. The first part is focused on classical probability, including conditional probability. The next probability and mathematical sharest increases of readown.		-
	tributions, examples of the most important types of discrete and continuous distributions, numerical characteristics of random versional distributions personal to the description of statistical methods for extinuous distribution personal to the description of statistical methods for extinuous distribution personal to the description of statistical methods for extinuous distribution personal to the description of statistical methods for extinuous distributions.		bendence, sums
	Probabilistic knowledge is then used in the description of statistical methods for estimating distribution parameters and testing		
B6B36TS1	Software Testing	Z,ZK	5
B0B36ZAL	Introduction to Programming	Z,ZK	6
B6B01ZDM	Introduction to Discrete Mathematics	Z,ZK	5
	es of mathematics are required at the beginning of this course. Using illustrative examples we build sufficient understanding	of combinatorics, se	et and graph
	ed to formal construction of propositional calculus.		
B6B39ZMT			
The course famili!-	Foundations of Multimedia Production	KZ	3
	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, v	video and audio, as	well as the
principles of graphic	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, verign and its implementation in a web environment. The course is organized within the block teaching when, within four days	rideo and audio, as s s, students gradually	well as the pass each
principles of graphic section of the course	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and pro-	video and audio, as s, students gradually cessing of multimed	well as the pass each lia content while
principles of graphic section of the course they use several diffe	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained	video and audio, as s, students gradually cessing of multimed within the last day o	well as the pass each lia content while
principles of graphic section of the course they use several diffe composition rules wit	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained as Web project. After completing the course, students will carry out their own independent project and after its submission with a web project.	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.	well as the pass each lia content while ledicated to
principles of graphic section of the course they use several diffecomposition rules wit B6B38ZPS	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission was Basics of Computer Systems	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.	well as the pass each lia content while ledicated to
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS  The first topic introdu	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission was Basics of Computer Systems  The students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK jital technology, inte	well as the pass each lia content while ledicated to 6 rnal structure
principles of graphic section of the course they use several diffecomposition rules wite B6B38ZPS The first topic introduand function of the pi	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems  The students to the basic concepts of computer technology and computer networks. The following lectures are focused on digoressor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor.	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK jital technology, inteor performance and	well as the pass each lia content while ledicated to 6 rnal structure their limits will
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS.  The first topic introduand function of the pube introduced. The co	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission to Basics of Computer Systems  The following lectures are focused on dig processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor amputer architecture description, memories and their categorization in terms of functional principles and application use will be	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK jital technology, inteor performance and e based on this known.	well as the r pass each lia content while ledicated to 6 rnal structure their limits will wledge. The
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS.  The first topic introduced and function of the probe introduced. The cofollowing lectures are	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems are students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig occasion and its instruction set. Common and special architectures and specialized instruction sets, ways to increase process imputer architecture description, memories and their categorization in terms of functional principles and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resour	rideo and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK jital technology, inteor performance and e based on this known or management allows.	well as the r pass each lia content while ledicated to 6 rnal structure their limits will wledge. The nd virtualization.
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS.  The first topic introduct and function of the problem introduced. The confollowing lectures are the next lecture will on the section of the problem.	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems are students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig occasion and its instruction set. Common and special architectures and specialized instruction sets, ways to increase process imputer architecture description, memories and their categorization in terms of functional principles and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resourced with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocol	rideo and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK gital technology, inteor performance and e based on this knource management alcols. Further the disk	well as the r pass each lia content while ledicated to 6 rnal structure their limits will wledge. The nd virtualization.
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS.  The first topic introduct and function of the properties introduced. The confollowing lectures are the next lecture will one subsystem will be desired.	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems  The students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig accessor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor in the properties of the processor and its instruction, memories and their categorization in terms of functional principles and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resourced with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocomic or ideal in including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectorics and optoelectorics and optoelectorics.	rideo and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK gital technology, inteor performance and e based on this knource management alcols. Further the disk	well as the r pass each lia content while ledicated to 6 rnal structure their limits will wledge. The nd virtualization to (mass storage)
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS.  The first topic introduct and function of the proper introduced. The confollowing lectures are The next lecture will obsubsystem will be destudents to further desture destudents to further destures are the subsystem will be destudents to further destures are the confollowing lectures are the next lecture will obsubsystem will be destudents to further destures the course of th	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems  sees students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig accessor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor in the properties of the properties of the processor and its instruction, memories and their categorization in terms of functional principles and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resourced with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocomic in the processor of the processor of the protocomic of the	video and audio, as s, students gradually cessing of multimed within the last day of will be assessed.  Z,ZK jital technology, interior performance and the based on this known cere management at cols. Further the distorrorics, typical prob	well as the r pass each lia content while ledicated to 6 rnal structure their limits will wledge. The nd virtualization. It (mass storage) elems motivating
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS. The first topic introduct and function of the probe introduced. The confollowing lectures are The next lecture will on subsystem will be destudents to further destanding lectures.	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of Basics of Computer Systems  The sest students to the basic concepts of computer technology and computer networks. The following lectures are focused on digoecessor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor instruction and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resourced in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelective in this area through self-study will be introduced.  Introduction to Project Management	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK jital technology, interior performance and the based on this known are management at cols. Further the disk etronics, typical prob	well as the rpass each lia content while ledicated to  6 rnal structure their limits will wledge. The divirtualization. It (mass storage) elems motivating
principles of graphic section of the course they use several diffecomposition rules with B6B38ZPS. The first topic introduced and function of the probe introduced. The confollowing lectures are following lectures are subsystem will be destudents to further destude	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instr	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK gital technology, interior performance and the based on this known arce management at cols. Further the districtionics, typical problem.  KZ Z,ZK	well as the r pass each lia content while ledicated to  6 rnal structure their limits will wledge. The nd virtualization of the content with t
principles of graphic section of the course they use several diffect composition rules with B6B38ZPS. The first topic introduct and function of the property o	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web assic concepts of computer technology and computer networks. The following lectures are focused on dig processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction description, memories and their categorization in terms of functional principles and application use will be focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resourced in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelective in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelective in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelective in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelective from the following leafure from the fo	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK gital technology, inteor performance and the based on this known and the cols. Further the districtionics, typical problem.  KZ Z,ZK (CSS), and dynami	well as the r pass each lia content while ledicated to  6 rnal structure their limits will wledge. The nd virtualization. It (mass storage) elems motivating  5 cs on the client
principles of graphic section of the course they use several diffect composition rules with B6B38ZPS. The first topic introduct and function of the problem	s students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vesign and its implementation in a web environment. The course is organized within the block teaching when, within four days divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and procent types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained in a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web project. After completing the course, students will carry out their own independent project and after its submission of a Web students to the basic concepts of computer technology and computer networks. The following lectures are focused on dig processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor and its instr	video and audio, as s, students gradually cessing of multimed within the last day owill be assessed.  Z,ZK gital technology, inteor performance and the based on this known and the cols. Further the districtionics, typical problem.  KZ Z,ZK (CSS), and dynami	well as the r pass each lia content while ledicated to  6 rnal structure their limits will wledge. The nd virtualization. It (mass storage) elems motivating  5 cs on the client

Code of the group: 2021\_BSITECTSZAJ Name of the group: Exam in English

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, Dana Saláková, Petra Jennings Petra Jennings (Gar.)	KZ	0	0C	Z,L	Р

Characteristics of the courses of this group of Study Plan: Code=2021\_BSITECTSZAJ Name=Exam in English

B0B04B1K	English language B1 - classified assessment	KZ	0
verifying of the student	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 the department website: http://jazyky.fel.cvut.cz/

Name of the block: Povinné p edm ty specializace

Minimal number of credits of the block: 21

The role of the block: PS

Code of the group: 2021\_BSITPS1

Name of the group: Compulsory subjects - specialization Enterprise Systems Requirement credits in the group: In this group you have to gain 21 credits

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

Credits in the group: 21

Note on the group: Specialization Enterprise Systems

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
B2M32DSVA	Distributed Computing Peter Macejko Peter Macejko (Gar.)	Z,ZK	6	2P + 2C	Z	PS
B6B36EAR	Enterprise Architectures Petr K emen, Petr Aubrecht Petr K emen Petr K emen (Gar.)	KZ	5	2P+2C+2D	Z	PS
B6B16ISP	Business Process Management Pavel Náplava, Jan Ko í Jan Ko í Pavel Náplava (Gar.)	Z,ZK	5	2P+2S+2D	Z	PS
B0B39KAJ	Client applications in JavaScript Ond ej Žára Ond ej Žára Ond ej Žára (Gar.)	Z,ZK	5	2P+2C	L	PS

# Characteristics of the courses of this group of Study Plan: Code=2021\_BSITPS1 Name=Compulsory subjects - specialization Enterprise Systems

B2M32DSVA	Distributed Computing	Z,ZK	6		
The course is focused of	The course is focused on technologies that support distributed computing: on mechanisms ensuring reliable, efficient and secure connection of application processes, programming				
interfaces of communication	interfaces of communication channels and up-to-date middleware technologies. A significant part of lectures is dedicated to distributed algorithms that assure causality, exclusive				
access, deadlock detection/avoidance, fault-tolerance, mobile computing, and security.					
B6B36EAR	Enterprise Architectures	KZ	5		
The course offers an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common enterprise architectures and					
related design patterns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of students will prepare a simple					
enterprise application as their semestral work.					
B6B16ISP	Business Process Management	Z,ZK	5		
B0B39KAJ	Client applications in JavaScript	Z,ZK	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: 2021 BSITPVS1

Name of the group: Compulsory elective subjects - specialization Enterprise Systems

Requirement credits in the group: In this group you have to gain at least 9 credits (at most 21)

Requirement courses in the group: In this group you have to complete at least 2 courses (at most 4)

Credits in the group: 9

Note on the group: Specialization Enterprise Systems

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
B2M32PST	Advanced Networking Technologies Leoš Bohá Zbyn k Kocur Leoš Bohá (Gar.)	Z,ZK	6	2P + 2C + 4D	Z	PV
B6B39PDA	Principles of mobile applications Ivo Malý Ivo Malý Ivo Malý (Gar.)	Z,ZK	6	2P+2C	L	PV
B0B39SPS	Computer Networks Administration Jan Kubr Jan Kubr Jan Kubr (Gar.)	KZ	5	2P+2C+3D	L	PV
B6B32UOP	Unix Operating Systems Pavel Troller Ján Ku erák Pavel Troller (Gar.)	KZ	4	2P + 2C + 2D	Z	PV

Characteristics of the courses of this group of Study Plan: Code=2021\_BSITPVS1 Name=Compulsory elective subjects - specialization Enterprise Systems

<del></del>				
B2M32PST	Advanced Networking Technologies	Z,ZK	6	
Subject Advanced Network Technologies expands students' knowledge of modern network technologies. The course is practically oriented and focused on explaining the function of				
advanced network proto	advanced network protocols as used in modern data networks of today and tomorrow. Students will gain practical experience with the issues like Internet routing, software-defined			
networks, multicast routing, IPv6, and MPLS networks. Part of the course is also devoted to a detailed explanation of transport protocols TCP/UDP and a manner in which software				
applications can access transportation services of TCP/IP data networks.				
B6B39PDA	Principles of mobile applications	Z,ZK	6	
Student who successfully passed the course get overview about properties and about limits of single mobile technologies. The course is focused on specific problems related to				
limitations and new capabilities of mobile devices. Attention is paid to maximal utilization of environment characteristics in which the mobile application is used. Course is not focused				
on introduction of basic programming techniques for mobile application development - it is expected that students already have this skills or will be gained by means of self-study.				
B0B39SPS	Computer Networks Administration	KZ	5	
B6B32UOP	Unix Operating Systems	KZ	4	

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

The role of the block: V

Code of the group: 2021\_BSITVOL 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
B0B04B1K	English language B1 - classified assessment	KZ	0
	verifying of the student'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 the department website: http://jazyky.fel.cvut.cz/

B0B36DBS Database Systems Z,ZK 6

The course is designed as a basic database course mainly aimed at the student ability to design a relational data model and to use the SQL language for data definition as well as for data querying and to choose the appropriate degree of transaction isolation. Students will also get acquainted with the most commonly used indexing techniques, database system architecture and their management. They will verify their knowledge during the elaboration of a continuously submitted seminar task.

B0B36PJV Programming in Java Z,ZK 6

The course builds on the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course also focus on the object concept of the Java language. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working with files and using generic types will be introduced. An important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowledge of Java is tested in the form

of solving partial ta	sks and semester work, which will be submitted continuously through the source code version control system. The semester work so correctness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and r		oints for the
B0B36ZAL	Introduction to Programming	Z,ZK	6
B0B39KAJ	Client applications in JavaScript	Z,ZK	5
B0B39SPS	Computer Networks Administration	KZ	5
B0M32KSB	Cryptography and Network Security	Z,ZK	6
	curity course provides a complete source of information on the field of security of information systems and information technologies. The		_
	I, transferred, stored in electronic form so information security is very important part of it. Technical background for information securi		-
B2M32DSVA	Distributed Computing	Z,ZK	6
	sed on technologies that support distributed computing: on mechanisms ensuring reliable, efficient and secure connection of applica		l
	munication channels and up-to-date middleware technologies. A significant part of lectures is dedicated to distributed algorithms that		
	access, deadlock detection/avoidance, fault-tolerance, mobile computing, and security.		
B2M32PST	Advanced Networking Technologies	Z,ZK	6
	Network Technologies expands students' knowledge of modern network technologies. The course is practically oriented and focused		
	k protocols as used in modern data networks of today and tomorrow. Students will gain practical experience with the issues like International Control of the	-	
networks, multicas	st routing, IPv6, and MPLS networks. Part of the course is also devoted to a detailed explanation of transport protocols TCP/UDP and	d a manner in whic	h software
DODO4LAO	applications can access transportation services of TCP/IP data networks.	7.71/	7
B6B01LAG	Linear Algebra	Z,ZK	7
B6B01MAA	Mathematics Analysis	Z,ZK	5
i nis course is an in	troduction to differential and integral calculus. It covers basic properties of functions, limits of functions, derivative and its applications	s (grapning, Taylor	polynomial)
DCD04DDA	and definite/indefinite integral with its applications, sequences and series.	7 71/	E
B6B01PRA	Statistics and Probability be introduced to the theory of probability and mathematical statistics, namely to the basic computing methods and their applications in	Z,ZK	5
	robability and mathematical statistics. The first part is focused on classical probability, including conditional probability. The next part d	-	
	distributions, examples of the most important types of discrete and continuous distributions, numerical characteristics of random variab		•
	sformations. Probabilistic knowledge is then used in the description of statistical methods for estimating distribution parameters and t		
B6B01ZDM	Introduction to Discrete Mathematics	Z,ZK	5
	wleges of mathematics are required at the beginning of this course. Using illustrative examples we build sufficient understanding of c		and graph
	theory. Then we proceed to formal construction of propositional calculus.		
B6B16INS	Information Systems	KZ	4
The goal of this co	urse is to familiarise students with the information systems topic and information systems implementation principles. During the cours	se, students are in	troduced to
	isting types of systems and their usage in specific industry segments. Students are familiarised with the CRM, ERP, MRP and other t		=
	al part of the course is the introduction to key ideas of an information system selection, evaluation of information system benefits, wa	=	-
•	d information system implementation based on the project management principles. The emphasis is on the initial customer analysis, or hatter to implement any principle and the information protein and the information of the	•	•
	better to implement any existing information system or to develop a new one from scratch. These factors determine the information systems for the course information systems security, operation, support, maintenance, legislation impacts, and government information systems	•	
B6B16ISP	Business Process Management Computer Networks	Z,ZK	5
B6B32PSI	Computer Networks	Z,ZK	5
B6B32PSI B6B32UOP	Computer Networks Unix Operating Systems	Z,ZK KZ	5 4
B6B32PSI B6B32UOP B6B36DSA	Computer Networks Unix Operating Systems Data Structures and Algorithms	Z,ZK KZ Z,ZK	5 4 6
B6B32PSI B6B32UOP B6B36DSA B6B36EAR	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures	Z,ZK KZ Z,ZK KZ	5 4 6 5
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common	Z,ZK KZ Z,ZK KZ n enterprise archite	5 4 6 5 ectures and
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures	Z,ZK KZ Z,ZK KZ n enterprise archite	5 4 6 5 ectures and
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.	Z,ZK KZ Z,ZK KZ n enterprise architetudents will prepa	5 4 6 5 ectures and re a simple
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple 5 6
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple 5 6 5
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple 5 6 5 4
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple 5 6 5 4
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa	5 4 6 5 ectures and re a simple 5 6 5 4
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements  the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK KZ Z,ZK n using the most w	5 4 6 5 ectures and re a simple 5 6 5 4
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK KZ Z,ZK n using the most w	5 4 6 5 ectures and re a simple 5 6 5 4 6 idely spread
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt  B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers  B6B36TS1 B6B36ZSO	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems Object-oriented design and Modeling Programming in C/C++ Management of Software Projects Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing Introduction to Project Management	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK XZ Z,ZK KZ	5 4 6 5 ectures and re a simple  5 6 5 4 6 sidely spread
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt  B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers  B6B36TS1 B6B36ZSO B6B38ZPS	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK KZ Z,ZK XZ Z,ZK XZ Z,ZK XZ Z,ZK XZ Z,ZK XZ Z,ZK	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt  B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers  B6B36TS1 B6B36ZSO B6B38ZPS The first topic intro	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK KZ k kZ	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt  B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers  B6B36TS1 B6B36ZSO B6B38ZPS The first topic introand function of the	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems Object-oriented design and Modeling Programming in C/C++ Management of Software Projects Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing Introduction to Project Management Basics of Computer Systems oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK XZ,ZK KZ Z,ZK KZ Z,ZK KZ Z,ZK KZ Z,ZK to using the most w  Z,ZK technology, internation	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures and	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor peer occurred to getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource mere focused on getting acquainted with operating systems.	Z,ZK KZ Z,ZK Menterprise architestudents will preparate to the students will prepare to the students will prepare to the students will be st	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The irtualization.
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures at The next lecture will	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common erns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee of computer architecture description, memories and their categorization in terms of functional principles and application use will be base for focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource in I deal with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. F	Z,ZK KZ Z,ZK technology, international control	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The irtualization. ass storage)
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures at The next lecture will	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common erns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor per e computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource management in the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. Felescribed in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronics.	Z,ZK KZ Z,ZK technology, international control	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The irtualization. ass storage)
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures at the next lecture will subsystem will be designed.	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems Object-oriented design and Modeling Programming in C/C++ Management of Software Projects Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing Introduction to Project Management Basics of Computer Systems oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee e computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource metocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource metocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource metocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource metocused on getting acquainted with operating systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.	Z,ZK KZ Z,ZK technology, international control	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The irtualization. ass storage) s motivating
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures and the recture will subsystem will be designed.	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems Object-oriented design and Modeling Programming in C/C++ Management of Software Projects Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing Introduction to Project Management Basics of Computer Systems oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital the processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee of computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource medical with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. Fescribed in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK KZ Z,ZK KZ Z,ZK KZ Z,ZK technology, internation of the ased on this knowlean agement and virther the disk (mass, typical problem)	5 4 6 5 ectures and re a simple 5 6 5 4 6 idely spread 5 6 al structure eir limits will edge. The irtualization. ass storage) s motivating 6
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures and the following lectures at the next lecture will subsystem will be designed.	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common erns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee e computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource metocuse of the process of the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. Feecribed in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  coessfully passed the course get overview about properties and about limits of single mobile technologies. The course is focused on security of the process of the course is focused on security.	Z,ZK KZ Z,ZK KZ n enterprise architestudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK KZ Z,ZK KZ Z,ZK KZ Z,ZK kZ Z,ZK kZ Z,ZK technology, internation of the ased on this knowlean agement and virther the disk (mass, typical problems as the specific problem	5 4 6 5 ectures and re a simple  5 6 5 4 6 sidely spread  5 6 al structure eir limits will edge. The irtualization. ass storage) s motivating  6 related to
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The following lectures and function of the be introduced. The following lectures and The next lecture will subsystem will be designed.	Computer Networks Unix Operating Systems Data Structures and Algorithms Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems Object-oriented design and Modeling Programming in C/C++ Management of Software Projects Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing Introduction to Project Management Basics of Computer Systems oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital the processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee of computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource medical with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. Fescribed in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications	Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK XZ Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK Estudent	5 4 6 5 ectures and re a simple  5 6 5 4 6 sidely spread  5 6 al structure eir limits will edge. The irtualization. ass storage) s motivating  6 elated to not focused
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduced. The first topic introduced. The following lectures at the next lecture will subsystem will be designed. B6B39PDA Student who suc limitations and new	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor peer computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource management and process of the process of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  reaspabilities of mobile devices. Attention is paid to maximal utilization of environment characteristics in which the mobile application is	Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK Z,ZK XZ Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK KZ Z,ZK KZ Z,ZK Estudents will prepa  Z,ZK Estudent	5 4 6 5 ectures and re a simple  5 6 5 4 6 sidely spread  5 6 al structure eir limits will edge. The irtualization. ass storage) s motivating  6 elated to not focused
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduction of the be introduced. The following lectures and The next lecture will subsystem will be designed by the subsystem w	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures  an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common erns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements  the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pee computer architecture description, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  creasfully passed the course get overview about properties and about limits of single mobile technologies. The course is focused on creapabilities of mobile devices. Attention is paid to maximal utilization of environment characteristics in which the mobile application it basic programming techniques for mobile application development - it is expected that students already have this skills or will be gain.	Z,ZK KZ Z,ZK KZ n enterprise architestudents will preparate to the students will prepare to	5 4 6 5 ectures and re a simple  5 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The ritualization. ass storage) s motivating  6 related to not focused self-study.  3
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduction of the be introduced. The following lectures at The next lecture will subsystem will be designed by the course family principles of graphic principles of graphic patterns.	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements  the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  Oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pere computer architecture description, memories and their categorization in terms of functional principles and application use will be berefocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource medical including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  Description move detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications of working and access rights. Finally the basics of electronics and optoelectronic students of mobile devices. Attention is paid to maximal utilization of environmen	Z,ZK KZ A enterprise architestudents will preparate to the students will prepare to the students will be student	5 4 6 5 ectures and re a simple  5 6 5 4 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The intuitivation. ass storage) s motivating  6 related to not focused self-study.  3 ell as the bass each
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduction of the be introduced. The following lectures at The next lecture will subsystem will be designed by the course family principles of graphic principles of graphic patterns.	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures  an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most common erns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital transcription, memories and their categorization in terms of functional principles and application use will be be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource may be refocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource may be refocused in more detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  coessfully passed the course get overview about properties and about limits of single mobile technologies. The course is focused on scrapabilities of mobile devices. Attention is paid to maximal utilization of environment characteristics in which the mobile application it basic programming techniques for mobile application of environment characteristics in which the mobile application if basic programming techniques for mobile a	Z,ZK KZ A enterprise architestudents will preparate to the students will prepare to the students will be student	5 4 6 5 ectures and re a simple  5 6 5 4 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The intuitivation. ass storage) s motivating  6 related to not focused self-study.  3 ell as the bass each
B6B32PSI B6B32UOP B6B36DSA B6B36EAR The course offers a related design patt B6B36NSS B6B36OMO B6B36PCC B6B36PM2 B6B36SMP This course covers B6B36TS1 B6B36ZSO B6B38ZPS The first topic introduction of the be introduced. The following lectures at The next lecture will subsystem will be designed by the course family principles of graphic principles of graphic patterns.	Computer Networks  Unix Operating Systems  Data Structures and Algorithms  Enterprise Architectures an overview of enterprise system architectures, focusing on Spring and Java EE. Students will become familiar with the most commor terns. In particular, the focus will be put on the principles of inversion control, dependency injection and Java Bean lifecycle. Pairs of senterprise application as their semestral work.  Design of Software Systems  Object-oriented design and Modeling  Programming in C/C++  Management of Software Projects  Analysis and Modeling of Software Requirements  the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or graphic notation - UML.  Software Testing  Introduction to Project Management  Basics of Computer Systems  Oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital to processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pere computer architecture description, memories and their categorization in terms of functional principles and application use will be berefocused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource medical including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications  Description move detail, including disk partitioning, file systems, and access rights. Finally the basics of electronics and optoelectronic students to further deepen their knowledge in this area through self-study will be introduced.  Principles of mobile applications of working and access rights. Finally the basics of electronics and optoelectronic students of mobile devices. Attention is paid to maximal utilization of environmen	Z,ZK KZ A enterprise architestudents will preparate to the students will prepare to the students will be student	5 4 6 5 ectures and re a simple  5 6 5 4 6 5 4 6 idely spread  5 6 al structure eir limits will edge. The intuitivation. ass storage) s motivating  6 related to not focused self-study.  3 ell as the bass each

•	different types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained with on rules within a Web project. After completing the course, students will carry out their own independent project and after its submiss			
B6B39ZWA	Foundations of Web Applications	Z,ZK	5	
The subject is focussing on the creation and maintenance of web presentations. It covers the creation of data structures (HTML), graphical design (CSS), and dynamics on the cli				
side (Javascript). The course continues with server-side dynamics programmed in PHP 7 language. The students will learn how to handle forms and how to create a simple web application. The subject ends with an oral and written exam.				
B6BPROJ6	Semestral Project	Z	6	
Individual or team work in form of a project. Student selects the subject of their project from the list of topics relevant to the studied specialization and provided by the specific				
department/departments. The project's subject can be closely related to the future Bachelor thesis. Further instructions for the selection and resolution of the projects can be found on the web pages of the selected department. Within this course the project is also defended.				
BBAP20	Bachelor thesis	Z	20	
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 <a href="http://bilakniha.cvut.cz/en/f3.html">http://bilakniha.cvut.cz/en/f3.html</a> Generated: day 2024-05-19, time 10:49.