Recomended pass through the study plan

Name of the pass:

Faculty/Institute/Others: Faculty of Electrical Engineering
Department:
Pass through the study plan: Software Engineering and Technology
Branch of study guranteed by the department: Common courses
Guarantor of the study branch:
Program of study: Software Engineering and Technology
Type of study: Bachelor combined
Note on the pass:

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

Coding of ways of completion of courses (KZ/Z/ZK) and coding of semesters (Z/L):
KZ - graded assesment, Z - assesment, ZK - examination, L - summer semester, Z - winter semester

Number of semester: 1

Code	Name of the course / Name of the group of courses *(in case of groups of courses the list of codes of their members)* *Tutors, authors and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
BD6B04PRE	**Presentation** *Dana Saláková*	KZ	3	14+6	Z	P
BEZZ	**Basic health and occupational safety regulations** *Vladimír K la, Radek Havlí ek, Ivana Nová Radek Havlí ek Vladimír K la (Gar.)*	Z	0	2BP+2BC	Z	P
BD6B36ZAL	**Introduction to Programming** *Ji í Vok ínek*	Z,ZK	5	14KP+6KC	Z	P
BD6B01ZDM	**Introduction to Discrete Mathematics**	Z,ZK	5	14KP+6KC	Z	P
BD6B39ZMT	**Foundations of Multimedia Production** *Roman Berka*	KZ	3	6KP+6KL	Z	P
BD6B38ZPS	**Basics of Computer Systems**	Z,ZK	6	22P+8C	Z	P
BD6B36ZPR	**Introduction to Project Management** *Pavel Náplava*	KZ	3	6KP+6KC	Z	P
BD6B39ZWA	**Foundations of Web Applications**	Z,ZK	5	14KP+6KC	Z	P

Number of semester: 2

Code	Name of the course / Name of the group of courses *(in case of groups of courses the list of codes of their members)* *Tutors, authors and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
BEZB	**Safety in Electrical Engineering for a bachelor´s degree** *Vladimír K la, Radek Havlí ek, Ivana Nová Radek Havlí ek Vladimír K la (Gar.)*	Z	0	2BP+2BC	Z,L	P
BD6B36DBS	**Database Systems**	Z,ZK	6	14KP+6KC	L	P
BD6B01LAG	**Linear Algebra**	Z,ZK	7	28KP+6KC	L	P
BD6B36PJV	**Programming in Java**	Z,ZK	6	14KP+9KC	L	P
BD6B36SMP	**Requirements Engineering**	Z,ZK	6	14KP+9KC	L	P
BD6B36TS1	**Software Testing** *Miroslav Bureš*	Z,ZK	5	14KP+6KC	L	P

Number of semester: 3

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
B0B04B2Z	**English language B2 - exam** *Dana Saláková, Petra Jennings, Michael Ynsua Petra Jennings Petra Jennings (Gar.)*	Z,ZK	0	0C	Z,L	P
BD6B36EAR	**Enterprise Architectures**	KZ	5	14KP+6KC	Z	P

Code	Name	Completion	Credits	Scope	Semester	Role
BD6B01MAA	**Mathematics Analysis**	Z,ZK	5	14KP+6KC	Z	P
BD6B36OMO	**Object-oriented Design and Modeling**	Z,ZK	6	14KP+6KC	Z	P
BD6B32PSI	**Computer Networks** *Pavel Bezpalec, Leoš Bohá* **Pavel Bezpalec** *Leoš Bohá (Gar.)*	Z,ZK	5	14P + 6C	Z	P
BD6B36PJC	**Programming in C/C++**	KZ	4	14KP+6KC	Z	P
BD6B16ZPD	**Business Economics** *Ji í Vaší ek, Martin Dobiáš* **Martin Dobiáš** *Martin Dobiáš (Gar.)*	Z,ZK	5	14KP+6KS	Z	P

Number of semester: 4

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
BD6B36DSA	**Data Structures and Algorithms**	Z,ZK	6	14KP+9KC	L	P
BD6B16INS	**Information Systems** *Pavel Náplava* **Pavel Náplava** *Pavel Náplava (Gar.)*	KZ	4	14KP+6KS	L	P
BD6B36NSS	**Design of Software Systems** *Ji í Vok ínek*	Z,ZK	5	14KP+6KC	L	P
BD6B01PST	**Probability and Statistics**	Z,ZK	4	14KP+6KC	L	P
BD6B36RSP	**Management of Software Projects** *Miroslav Bureš* **Miroslav Bureš** *Miroslav Bureš (Gar.)*	Z,ZK	6	14KP+6KC	L	P
BSITMPV-K	**Povinn volitelné p edm ty** *B6B32DSV,B6B16FIP,..... (see the list of groups below)*	Min. cours. 4	Min/Max 20/133			PV

Number of semester: 5

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
BD6B32KAB	**Cryptography and Information Security** *Tomáš Van k* **Tomáš Van k** *Tomáš Van k (Gar.)*	Z,ZK	5	14P + 6C	Z	P
BD6B16PIT	**Law for IT** *Martin Dobiáš* **Martin Dobiáš** *Martin Dobiáš (Gar.)*	Z,ZK	4	14KP+6KS	Z	P
BD6B36PRO	**Semestral Project** *Ji í Šebek, Ji í Vok ínek* **Ji í Vok ínek** *Ji í Vok ínek (Gar.)*	KZ	6	2s	L,Z	P
BSITMPV-K	**Povinn volitelné p edm ty** *B6B32DSV,B6B16FIP,..... (see the list of groups below)*	Min. cours. 4	Min/Max 20/133			PV
BSTMVOLSI	**Volitelné p edm ty**	Min. cours. 0	Min/Max 0/999			V

Number of semester: 6

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 mejla Roman mejla (Gar.)*	Z	20	12S	L,Z	P
BSITMPV-K	**Povinn volitelné p edm ty** *B6B32DSV,B6B16FIP,..... (see the list of groups below)*	Min. cours. 4	Min/Max 20/133			PV
BSTMVOLSI	**Volitelné p edm ty**	Min. cours. 0	Min/Max 0/999			V

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

Kód	Name of the group of courses and codes of members of this group (for specification see here or below the list of courses)	Completion	Credits	Scope	Semester	Role
BSITMPV-K	**Povinn volitelné p edm ty**	Min. cours. 4	Min/Max 20/133			PV

B6B32DSV	Distributed Computing	B6B16FIP	Corporate finance	BD6B16FIP	Corporate finance
BD6B16MPR	Decision Making Methods	B6B16MPR	Decision Making Methods	B0B39MM1	Multimedia 1
B6B37MM2	Multimedia 2	BD6B37MM2	Multimedia 2	B6B32ST2	Advanced Networking Technologies
B6B39PDA	Principles of mobile application ...	BD6B16ISP	Business Process Management	B6B16ISP	Business Process Management
B0B39PGR	Computer graphics programming	B6B32SOS	Network Operating Systems	B6B36SPS	Computer Networks Administration
BD6B36SPS	Computer Networks Administration	B6B32TKS	Telecommunications Networks	BD6B32TKS	Telecommunications Networks
B6B39TUR	User Interface Testing	B0B39KAJ	Client applications in JavaScrip ...	BD6B16ZMI	Marketing Research
B6B16ZMI	Marketing Research	B6B39TDM	3D Modeling		

BSTMVOLSI	Volitelné p edm ty	Min. cours.	Min/Max		v
		0	0/999		

List of courses of this pass:

Code	Name of the course	Completion	Credits
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/

Code	Name of the course	Completion	Credits
B0B39KAJ	Client applications in JavaScript	Z,ZK	5
B0B39MM1	Multimedia 1	Z,ZK	6

The course gives students knowledge necessary to produce and edit multimedia content using variety of tools and creative methods. Lectures are focused on presentation of standards, technologies, methods and approaches commonly used in commercial and alternative creation processes. The presented topics include production process of multimedia content, interactive multimedia applications, data formats and compression methods, technical equipment to record video, lighting devices and their control. The course also contain problematics of archivation and distribution of multimedia content. The part of the course is also a project with use of presented technologies and methods.

Code	Name of the course	Completion	Credits
B0B39PGR	Computer graphics programming	Z,ZK	6
B6B16FIP	Corporate finance	Z,ZK	5
B6B16ISP	Business Process Management	Z,ZK	5
B6B16MPR	Decision Making Methods	Z,ZK	5
B6B16ZMI	Marketing Research	Z,ZK	5
B6B32DSV	Distributed Computing	Z,ZK	5

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 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.

Code	Name of the course	Completion	Credits
B6B32SOS	Network Operating Systems	Z,ZK	5

Network operating systems, Linux, Unix. Administration and network tools, managing and administration of documentation. The graduates will be informed about basic conception and procedures in operating systems administration (UNIX) and gain the basic facility in operating systems configuration based on the x 86 platforms.

Code	Name of the course	Completion	Credits
B6B32ST2	Advanced Networking Technologies	Z,ZK	5
B6B32TKS	Telecommunications Networks	Z,ZK	5
B6B36SPS	Computer Networks Administration	Z,ZK	5
B6B37MM2	Multimedia 2	Z,ZK	5
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.

Code	Name of the course	Completion	Credits
B6B39TDM	3D Modeling	KZ	5
B6B39TUR	User Interface Testing	Z,ZK	5

Students will learn the basic principles of user interface testing in the context of User-Centered Design. The course covers the most important topics in this field so that students can run their own (either quantitative or qualitative) user interface tests. Another important part of the course is the topic of disabilities that users can suffer from. The tutorials cover the entire cycle of conducting tests (incl. infrastructure, ethics concerns), running tests and methods for its evaluating.

Code	Name of the course	Completion	Credits
BBAP20	Bachelor thesis	Z	20
BD6B01LAG	Linear Algebra	Z,ZK	7
BD6B01MAA	Mathematics Analysis	Z,ZK	5

This course is an introduction to differential and integral calculus. It covers basic properties of functions, limits of functions, derivative and its applications (graphing, Taylor polynomial) and definite/indefinite integral with its applications, sequences and series.

Code	Name of the course	Completion	Credits
BD6B01PST	Probability and Statistics	Z,ZK	4

Code	Course	Completion	Credits
BD6B01ZDM	Introduction to Discrete Mathematics	Z,ZK	5
	No advanced knowleges of mathematics are required at the beginning of this course. Using illustrative examples we build sufficient understanding of combinatorics, set and graph theory. Then we proceed to formal construction of propositional calculus.		
BD6B04PRE	Presentation	KZ	3
BD6B16FIP	Corporate finance	Z,ZK	5
BD6B16INS	Information Systems	KZ	4
BD6B16ISP	Business Process Management	Z,ZK	5
BD6B16MPR	Decision Making Methods	Z,ZK	5
BD6B16PIT	Law for IT	Z,ZK	4
BD6B16ZMI	Marketing Research	Z,ZK	5
BD6B16ZPD	Business Economics	Z,ZK	5
BD6B32KAB	Cryptography and Information Security	Z,ZK	5
BD6B32PSI	Computer Networks	Z,ZK	5
BD6B32TKS	Telecommunications Networks	Z,ZK	5
BD6B36DBS	Database Systems	Z,ZK	6
BD6B36DSA	Data Structures and Algorithms	Z,ZK	6
BD6B36EAR	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.		
BD6B36NSS	Design of Software Systems	Z,ZK	5
BD6B36OMO	Object-oriented Design and Modeling	Z,ZK	6
BD6B36PJC	Programming in C/C++	KZ	4
BD6B36PJV	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 tasks and semester work, which will be submitted continuously through the source code version control system. The semester work scoring consists of points for the correctness and efficiency of the code, as well as points that take into account the quality of the source codes, their readability and reusability.		
BD6B36PRO	Semestral Project	KZ	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.		
BD6B36RSP	Management of Software Projects	Z,ZK	6
BD6B36SMP	Requirements Engineering	Z,ZK	6
BD6B36SPS	Computer Networks Administration	Z,ZK	5
BD6B36TS1	Software Testing	Z,ZK	5
BD6B36ZAL	Introduction to Programming	Z,ZK	5
BD6B36ZPR	Introduction to Project Management	KZ	3
	The course introduces students to the general (not only IT) basics of project management. In addition to basic project management concepts (planning, organization, etc.) students also get practical experiences from team cooperation (information sharing, communication, etc.). All presented topics are practiced and extended in the consecutive courses.		
BD6B37MM2	Multimedia 2	Z,ZK	5
BD6B38ZPS	Basics of Computer Systems	Z,ZK	6
BD6B39ZMT	Foundations of Multimedia Production	KZ	3
	The course familiarizes students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, video and audio, as well as the principles of graphic design and its implementation in a web environment. The course is organized within the block teaching when, within four days, students gradually pass each section of the course divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and processing of multimedia content while they use several different types of instruments at the application level and at the level of simple code. All students will apply the knowledge gained within the last day dedicated to composition rules within a Web project. After completing the course, students will carry out their own independent project and after its submission will be assessed.		
BD6B39ZWA	Foundations of Web Applications	Z,ZK	5
BEZB	Safety in Electrical Engineering for a bachelor´s degree	Z	0
	The purpose of the safety course is to give the students basic knowledge of electrical equipment and installation as to avoid danger arising from operation of it. This introductory course contains fundamentals of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to work on electrical equipment.		
BEZZ	Basic health and occupational safety regulations	Z	0
	The guidelines were worked out based on The Training Scheme for Health and Occupational Safety designed for employees and students of the Czech Technical University in Prague, which was provided by the Rector´s Office of the CTU. Safety is considered one of the basic duties of all employees and students. The knowledge of Health and Occupational Safety regulations forms an integral and permanent part of qualification requirements. This program is obligatory.		

For updated information see http://bilakniha.cvut.cz/en/f3.html
Generated: day 2024-05-21, time 09:57.