## Recomended pass through the study plan

## Name of the pass: Software Engineering and Technology

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 full-time

Note on the pass:

Coding of roles of courses and groups of courses:

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

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

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

#### Number of semester: 1

Code	Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) Tutors, authors and guarantors (gar.)	Completion	Credits	Scope	Semester	Role
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	Р
B0B36ZAL	Introduction to Programming 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+2D	Z	Р
B6B38ZPS	Basics of Computer Systems Jií Novák <b>Jií Novák</b> Jií Novák (Gar.)	Z,ZK	6	4P+2L+2D	Z	Р
B6B36ZSO	Introduction to Project Management Martin Dobiáš, Pavel Náplava Pavel Náplava Pavel Náplava (Gar.)	KZ	5	2P+2C+5D	Z	Р
B6B39ZWA	Foundations of Web Applications Martin Klíma, Martin Mudra Martin Klíma Martin Klíma (Gar.)	Z,ZK	5	2P+2C+3D	Z	Р

### 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	Р
B0B36DBS	Database Systems Martin imná , Václav Kratochvíl <b>Martin imná</b> Martin imná (Gar.)	Z,ZK	6	2P+2C+4D	L	Р
B6B01LAG	Linear Algebra Ji í Velebil, Jakub Rondoš, Daria Pavlova <b>Ji í Velebil</b> Ji í Velebil (Gar.)	Z,ZK	7	4P+2C+2D	L	Р
B0B36PJV	Programming in Java Ji í Vok ínek, Ladislav Serédi, Martin Mudroch <b>Ji í Vok ínek</b> Ji í Vok ínek (Gar.)	Z,ZK	6	2P+3C+7D	L	Р
B6B36SMP	Analysis and Modeling of Software Requirements  Martin Komárek Martin Komárek (Gar.)	Z,ZK	6	2P+3C+3D	L	Р
B6B36TS1	Software Testing Miroslav Bureš, Avetis Mkrtchian Miroslav Bureš Miroslav Bureš (Gar.)	Z,ZK	5	2P+2C+2D	L	Р

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

# List of courses of this pass:

Code	Name of the course	Completion	Credits			
B0B36DBS	Database Systems	Z,ZK	6			
The course is design	ned as a basic database course mainly aimed at the student ability to design a relational data model and to use the SQL language f	or data definition a	s 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 seminal	task.				
B0B36PJV	Programming in Java	Z,ZK	6			
The course builds of	on the basics of algorithms and programming from the first semester and introduces students to the Java environment. The course al	so focus on the ob	ect concept			
of the Java languag	e. The topics of the course includes exceptions, event handling, and building a graphical interface. Basic library methods, working wit	h files and using g	eneric types			
	An important topic is models of multithreaded applications and their implementation. Practical exercises of practical skills and knowled	•				
of solving partial ta	sks and semester work, which will be submitted continuously through the source code version control system. The semester work sc		oints 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.				
B0B36ZAL	Introduction to Programming	Z,ZK	6			
B6B01LAG	Linear Algebra	Z,ZK	7			
B6B01ZDM	Introduction to Discrete Mathematics	Z,ZK	5			
No advanced kno	wleges of mathematics are required at the beginning of this course. Using illustrative examples we build sufficient understanding of	,	and graph			
	theory. Then we proceed to a brief formal construction of predicate calculus.					
B6B36SMP	Analysis and Modeling of Software Requirements	Z,ZK	6			
	the topic of requirements engineering. Their gathering, analysis, documentation, management, Students also will gain knowledge or		-			
	graphic notation - UML.	3	, , , , , , , , ,			
B6B36TS1	Software Testing	Z,ZK	5			
B6B36ZSO	Introduction to Project Management	KZ	5			
	luced to the basics of project management, which can be used not only in the field of IT projects. Students will also gain practical exp	I				
	ork (e.g. planning, team organization) and basics of legal and economic aspects of the project. The course also includes an introduc		٠ .			
B6B38ZPS	Basics of Computer Systems	Z.ZK	6			
	basics of Computer Systems  oduces students to the basic concepts of computer technology and computer networks. The following lectures are focused on digital	,	_			
	processor and its instruction set. Common and special architectures and specialized instruction sets, ways to increase processor pe					
	e computer architecture description, memories and their categorization in terms of functional principles and application use will be b					
	re focused on getting acquainted with operating systems, multitasking, inter-process communication and synchronization, resource n		•			
	I deal with the computer networks - first in general (OSI model) and then more specifically with an introduction to TCP / IP protocols. F	•				
	lescribed 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.		-			
B6B39ZMT	Foundations of Multimedia Production	KZ	3			
	iarizes students with the basic principles of acquisition and processing of multimedia content, with a focus on image processing, vide	eo and audio, as w	_			
principles of grap	hic design and its implementation in a web environment. The course is organized within the block teaching when, within four days, s	tudents gradually p	ass each			
section of the cours	e divided into two lectures and two workshops each day. Students will acquire the practical principles in the acquisition and processi	ng of multimedia c	ontent 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 wit	hin the last day de	dicated to			
composition	on rules within a Web project. After completing the course, students will carry out their own independent project and after its submiss	ion will be assesse	ed.			
B6B39ZWA	Foundations of Web Applications	Z,ZK	5			
The subject is focu	ssing on the creation and maintenance of web presentations. It covers the creation of data structures (HTML), graphical design (CS		n the client			
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 sir	mple web			
	application. The subject ends with an oral and written exam.					
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 operatio	n of it. This introduc	tory course			
contains funda	mentals of Safety Electrical Engineering. In this way the students receive qualification of instructed person that enables them to world	k on electrical equi	pment.			
BEZZ	Basic Health and Occupational Safety Regulations	Z	0			
The guidelines wer	e worked out based on The Training Scheme for Health and Occupational Safety designed for employees and students of the Czech	Technical Universit	y in Prague,			
which was provide	d by the Rector's Office of the CTU. Safety is considered one of the basic duties of all employees and students. The knowledge of He	ealth and Occupati	onal 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 2025-11-21, time 07:44.